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Mali grad

visokosrednjeveški grad v Kamniku
high medieval castle in Kamnik

Benjamin Štular



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Benjamin Štular

MALI GRAD
VISOKOSREDNJEVEŠKI GRAD V KAMNIKU

MALI GRAD
HIGH MEDIEVAL CASTLE IN KAMNIK

ZALOŽBA ZRC

LJUBLJANA 2009

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1. UVOD

1. INTRODUCTION

1.1. KAMNIK IN NJEGOVA GRADOVA

Kamniško mesto je zelo staro, v poganskih časih pa so bili (tod) trije gradovi, mesta pa ni bilo; na kraju, kjer je danes mesto, je bilo veliko jezero, ki se je raztezalo od Kamnika do okoliških hribov. Od omenjenih gradov pa je bil eden na večjem, drugi na manjšem hribu nad mestom, tretji pa na mengeškem hribu. V njih so prebivali trije malikovalski bratje, ki niso bili nikoli složni: vedno so se

1.1. KAMNIK AND ITS TWO CASTLES

The town of Kamnik is very old. In pagan times the area was inhabited by three castles, yet it lacked a town; the area upon which the town stands today was covered by a large lake that stretched from Kamnik all the way to the surrounding hills. The three castles were positioned as follows: one was on the higher and one on the lower hill that overlook the town, whilst the third was located on the Mengeš



Sl. 1.1: Pečat mesta Kamnika iz sredine 15. stoletja po odtisu izgubljenega pečatnika v Arhivu Slovenije (po Otorepec 1988, 55).
Fig. 1.1: The official mid 15th century seal of the town of Kamnik; made from the print of the lost seal in the Slovene Archive (from Otorepec 1988, 55).

klali in spopadali med seboj. Končno se je v tem kraju zakotil zmaj, ki se je tako močno premikal, da je razbil razvotljeno goro, ki je zadrževala jezero in to se je razlilo po polju okoli hriba, zmaj pa, ki mu je zmanjkalo vode, je na polju poginil. Nato je na mestu, kjer je bilo jezero, nastal lep in prijazen kraj, kjer so zgradili mesto, in ko so prišli učenci sv. Mohorja in Fortunata, so spreobrnili tamošnje prebivalce h krščanski veri. Ko so ti videli lepi čudež, so po vzoru mesta Berita izbrali za zavetnico sv. Marjeto, da bi bili rešeni zmaja; še danes ima mesto v grbu sv. Marjeto. - Še je videti ostanke teh gradov; dva še stojita, tretji, Mengeški grad, pa je do tal porušen. Mali grad, ki je danes v mestu, je poln obokov in votlin in mnogih zakladov. V času pa, ko se je razlilo jezero, je ostalo v tem gradu le eno dekle z imenom Veronika, ker je hlepela po zakladu in se je bala očetovih bratov, je rekla takole: "Raje se kakor kača plazim s trebuhom po tleh, kakor da bi zapustila zaklade." In z božjim privoljenjem se ji je zgodilo, kot je želela, in postala je v zgornji polovici dekle, v spodnji pa kača ter se je tiste dni mnogokrat prikazala.

Tako se glasi najstarejši zapis znamenite pripovedi o Veroniki, ki je bil leta 1684 pripravljen za polihistorja Janeza Vajkarda Valvazorja (Cevc 1958, 14). Pripoved je že stoletja tako tesno povezana z mestom Kamnik, da sta Veronika in zmaj postala zaščitni znak mesta (*sl. 1.1*). Vendar je pripoved starejša od tega zapisa in tudi od najstarejšega mestnega grba. Sodi v skupino izročil o zgodovini poselitve prostora. Kot je pokazal Ivan M. Hrovatin (2007), gre za lokalno različico izročila o vesoljnem potopu in ponovni obnovitvi sveta. Izročilo o jezeru, ki je bilo pred naselbino, je spomin na ustanovitev naselbine. V knjigi, ki je pred vami, bomo skušali s teh spominov odstreti nekaj tančic.

Kamnik leži v osrednji Sloveniji severno od Ljubljane (*sl. 1.2*), ob sotočju Kamniške Bistrice in Nevljice, ki sta zaradi svojega snežno-dežnega rečnega režima večkrat poplavili bregove. Kamniška Bistrica je bila od Kamnika dalje dovolj močna, da je poganjala številne mline. Južno od Kamnika se razprostira kamniška ravnina, ki je zaradi rendzinskih prsti razmeroma rodovitna. Zato na njej prevladujejo njive (Pak 2001), ki so najpozneje v rimski dobi (glej dalje) izpodrinile naravno rastje.

Severno od Kamnika se dvigujejo Kamniško-Savinjske Alpe, poleg Julijskih Alp najbolj visokogorska pokrajina v Sloveniji. Dandanes pretežno iglasti gozdovi so šele v zadnjih stoletjih izpodrinili naravne gozdove, med katerimi so prevladovali bukovi in bukovo-jelovi (Kladnik 2001, 108–115).

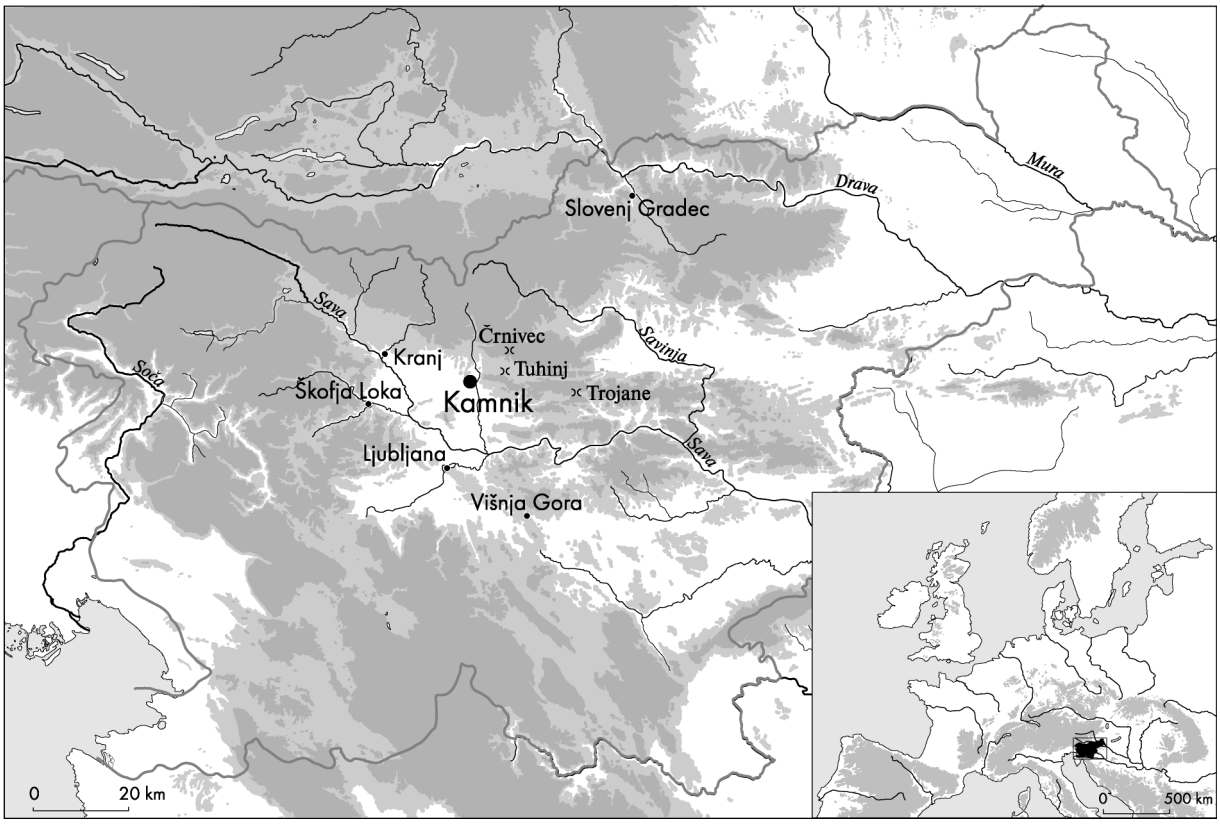
Prometno je Kamnik od juga lahko dostopen iz vseh smeri, tako iz Kranja, Škofje Loke in Ljubljane. Toda severno od Kamnika vodita poleg težko prehodnih gorskih poti in prelazov le dve poti, obe proti severovzhodu v Savinjsko dolino. Severnejša vodi čez prelaz Črnivec in Gornji Grad, nekoliko južnejša je znamenita tuhinjska pot. Obe sta bili pomembni predvsem v visokem in po-

hill. The castles were inhabited by three pagan brothers who could never agree on anything: they constantly fought and disputed one another. And then a dragon appeared. He moved so vigorously that he cracked the hollow mountain that held the lake and the lake spilled across the fields surrounding the hill. As the water ran out the dragon died in the middle of the field. After this the area that used to be covered by the lake became pleasant and friendly and a town was built upon it. When the disciples of St. Mohor and St. Fortunat arrived they converted the townspeople to Christianity. When they saw the beautiful miracle they decided that St. Margaret should be the town's patron saint (they modelled themselves on the mythical town of Berito) for she could protect the town from the dragon; St. Margaret remains within the town's coat-of-arms even today. The remains of the three castles can also be seen today; two are still standing, while the third - the Mengeš castle - has been flattened to the ground. Mali grad (that is today surrounded by the town of Kamnik) is full of vaults, caves and treasures. When the lake spilled across the plains a single girl – Veronika - was left in the castle; as she had a strong desire to own the treasure and was afraid of her uncles she said: 'I prefer to sneak around on my belly like a snake rather than leave the treasures.' With God's permission her wish was granted and she became half girl (top), half snake (bottom) – a creature that was often seen in those times.

This is the story as written in the oldest record on Veronika, the notes that were prepared in 1684 for the polymath Janez Vajkard Valvazor (Cevc 1958, 14). The story has been closely linked to the town of Kamnik for centuries, which is why Veronika and the dragon became the town protectors (*fig. 1.1.*). However, the story reaches even further into history and predates the first town coat-of-arms. The story is one of the many that depict the settlement of the area. As shown by Ivan M. Hrovatin (2007) this is a local variation of the story of the great flood and the resurrection of the world. The story of the lake that covered the area prior to its settlement is a memory of the settlement foundation. The book that you are holding in your hands will try to uncover some of the veils from these memories.

Kamnik lies at the confluence of the Kamniška Bistrica and Nevljica rivers (*fig. 1.2*). Due to their snow-rain river regime both have been known to flood their banks. Downstream of Kamnik, Kamniška Bistrica was strong enough to power numerous water mills. The relatively fertile plain to the south of Kamnik is covered in rendzine soil, which is why it is mainly covered by fields (Pak 2001). These replaced the natural vegetation during the Roman times, if not earlier (see text ahead).

The high mountainous region called the Kamnik or Savinja Alps rises to the north of Kamnik. They are covered in coniferous forests that substituted the natural forests only during the last few centuries, for before there



Sl. 1.2: Lega Kamnika in pomembnih krajev, omenjenih v besedilu (vir za relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Fig. 1.2: The map of important places mentioned in the text (sources: DMV 12,5, November 2005, © Geodetska uprava Republike Slovenije).

znem srednjem veku. Glavne rimskodobne poti so tako kot danes vodile južno od Kamnika, čez Trojane. Katere poti so bile pomembnejše v prazgodovini in zgodnjem srednjem veku, ostaja neraziskano. Z vprašanjem, ali je tuhinjska pot nastala zaradi pomena Kamnika ali ravno nasprotno, se spopadamo v zaključku.

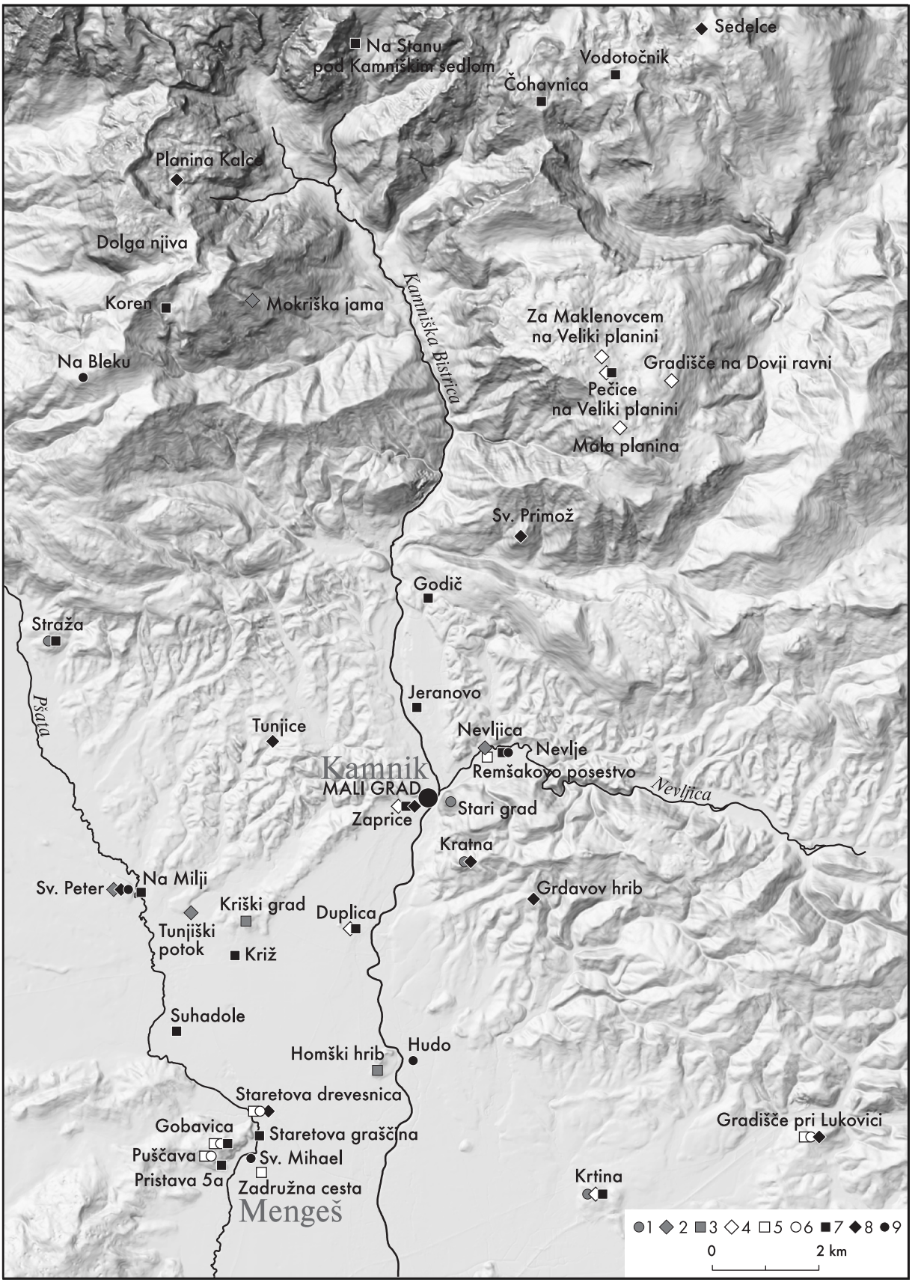
Kakšen je bil Kamnik pred več kot 30.000 leti, ko so ledenodobni lovci obiskovali Potočko zijalko in Mokriško jamo v Kamniško-Savinjskih Alpah (Odar 2006b, 60–62), ne vemo. Posamezne najdbe kažejo na prisotnost ljudi v dolini že v kameni dobi (*sl. 1.3*). Najstarejše arheološke najdbe iz samega Kamnika so bakrenodobne najdbe z Malega gradu (Sagadin 1996, 111–114).

Iz kovinskih obdobij, okvirno drugo in prvo tisočletje pred našim štetjem, poznamo zgolj najdbe posameznih predmetov. Predvsem v znameniti Sadnikarjevi zbirki se je ohranilo več bronastodobnih predmetov, ki pričajo o zanimivih, verjetno ritualnih dejanjih. Bolj neposredno pričevanje o prazgodovinski preteklosti je grob bojevnika s čelado negovskega tipa, ki so ga odkopali na Remšakovem posestvu in izvira s konca starejše železne dobe (prim. Perko, Štibernik 2006, 217–219; glej tam navedeno literaturo).

were mainly covered in beech and mixed beech and alder forests (Kladnik 2001, 108–115).

The Kamnik area is easily accessible from the south, whether from Kranj, Škofja Loka or Ljubljana. The mountain roads and passes to the north of Kamnik are hard to pass, thus only two manageable roads lead to the north-east, into the Savinja Valley. One crosses the mountain pass Črnivec and leads into the town Gornji Grad, while the other one is known as the Tuhinje route. Both were important in the High and Late Medieval periods. In the conclusion to this book we will deal with the issue whether the Tuhinje route appeared due to the importance of Kamnik or vice versa. The main Roman routes lead south of Kamnik across Trojane, as does the modern transport road. So far no research was performed on the important routes in the prehistoric times or in the early medieval period.

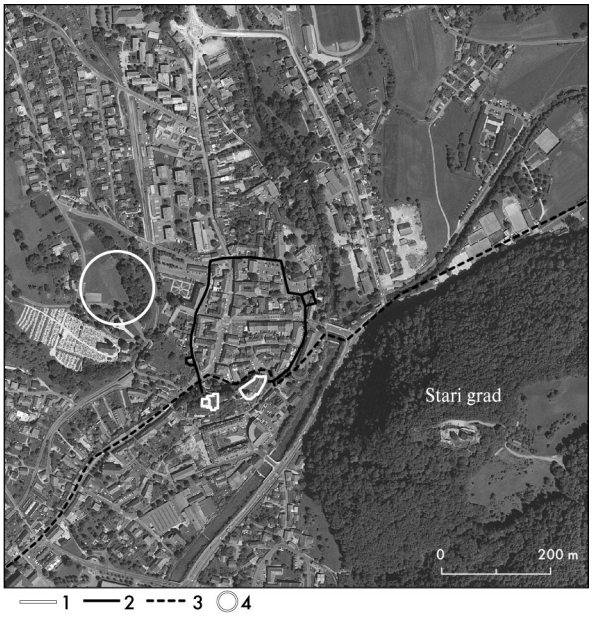
The appearance of Kamnik 30.000 years ago, when the ice age hunters visited the Potočka Zijalka and Mokriška Jama caves in the Kamnik Alps (Odar 2006b, 60–62) is unknown. Individual finds show that the plain was inhabited by people already in the Stone Age (*fig. 1.3*). The oldest archaeological finds from Kamnik itself (Sagadin 1996, 111–114) date back to the Eneolithic.


Sedelce
Na Stanu pod Kamniškim sedlom
Vodotočnik
Čohavnica
Planina Kalce
Dolga njiva
Koren
Mokriška jama
Kamniška Bistrica
Za Maklenovcem na Veliki planini
Gradišče na Dovji ravni
Na Bleku
Pečice na Veliki planini
Mala planina
Sv. Primož
Godič
Straža
Pšata
Jeranovo
Tunjice
Nevljica
Nevlje
Remšakovo posestvo
Nevljica
Kamnik
MALI GRAD
Zaprice
Stari grad
Kratna
Na Milji
Sv. Peter
Kriški grad
Duplica
Grdavov hrib
Tunjiški potok
Križ
Suhadole
Homški hrib
Hudo
Staretova drevesnica
Gobavica
Staretova graščina
Puščava
Sv. Mihael
Pristava 5a
Zadružna cesta
Mengeš
Gradišče pri Lukovici
Krtina
1 2 3 4 5 6 7 8 9
0
2 km

Sl. 1.3: Arheološka najdišča v Kamniku in okolici (vir za relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije; viri arheoloških podatkov: ARKAS © ZRC SAZU; Horvat 2006c, 39). Legenda: 1 - Prazgodovina; 2 - Paleolitik; 3 - Eneolitik; 4 - Bronasta doba; 5 - Starejša železna doba; 6 - Mlajša železna doba; 7 - Rimska doba; 8 - Pozna antika; 9 - Zgodnji srednji vek.
Fig. 1.3: The map of archaeological sites in Kamnik and its vicinity (sources: DEM 12,5, November 2005, © Geodetska uprava Republike Slovenije; ARKAS © ZRC SAZU; Horvat 2006c, 39). Legend: 1 - Prehistory; 2 - Paleolithic; 3 - Eneolithic; 4 - Bronze Age; 5 - Hallstatt Period; 6 - La Tène Period; 7 - Roman Age; 8 - Late Antiquity; 9 - Early Middle Ages.

V antičnem obdobju prvih stoletij našega štetja je bilo naselbinsko jedro kamniško-bistriške ravni v Mengšu, ob takratni državni cestni povezavi Emona (Ljubljana)–Celeja(Celje)–Petoviona (Ptuj). Ob rodovitnih delih ravnice so nastajala rimskodobna agrarna posestva, t. i. *villae rusticae*. Tako v Žejah in Kaplji vasi pri Komendi ter Loki pri Mengšu (Vidrih Perko, Sagadin 2004, 215–216; glej tam navedeno literaturo; prim. Štular 2002, 83–85) in Suhadolah pri Mengšu (Horvat 2006c). Edine antične najdbe iz samega Kamnika izvirajo ravno z Malega gradu (glej dalje), v neposredni okolici pa z Zapric, Jeranovega v Mekinjah in Nevelj (Horvat 2006c, 39).

Že od najstarejše prazgodovine so ljudje izkoriščali tudi naravne dobrine gora. Sprva so v gore hodili predvsem lovci, pozneje so se jim pridružili tudi iskalci rud, najpozneje od rimske dobe dalje pa se je postopoma uveljavljala planinska paša (Cevc 2006; prim. Horvat 2006a; Horvat 2006b; glej tam navedeno literaturo).



Sl. 1.4: Lega Malega gradu (1), Starega gradu, verjetno zgodnjesrednjeveško grobišče Žale (4) in mestno obzidje v 15. stoletju (2) ter potek obvezne srednjeveške poti skozi mesto (3) (vir: DOF 5 1999-2004 © Geodetska uprava Republike Slovenije).
Fig. 1.4: The position of Mali grad (1), Stari grad, Early Medieval cemetery Žale (4) and the town walls in the 15th century (2) and the path of the mandatory medieval route through town (3) (source: DOF 5 1999-2004 © Geodetska uprava Republike Slovenije).

Individual objects that could be dated to the second and first millennia BC have been found. The famous Sadnikar collection is renown for several Bronze Age objects that point towards interesting (most likely) ritual activities. A more direct reflection on the prehistoric past is provided by the warrior grave and his Negova type helmet that were excavated on the Ramšak estate and originate from the end of the Early Iron Age (cf. Perko, Štibernik 2006, 217–219; see cited literature).

During the Roman period the central settlement area of the Kamniška Bistrica plain was located in Mengeš, alongside the road connecting *Emona* (Ljubljana) and *Celeia* (Celje). Roman farming estates (the so-called *villae rusticae*) were built next to the fertile land on the plains, for instance: Žeje and Kaplja vas at Komenda, Loka at Mengeš (Vidrih Perko, Sagadin 2004, 215–216; see the cited literature; cf. Štular 2002, 83–85) and Suhadole at Mengeš (Horvat 2006c). The only Roman finds from Kamnik originate from Mali grad (see further), while a few finds were discovered in the vicinity, for instance in Zaprice, Jeranovo and Nevlje (Horvat 2006c, 39).

The natural wealth of the mountains has been exploited at least from the Late Bronze Age onwards. At first it was the hunters who turned to the mountains, later they were joined by ore prospectors, and by the Roman period it is likely that alpine grazing became common (Cevc 2006; Horvat 2006a; Horvat 2006b; see cited literature).

The Late Antiquity settlements lie mainly on the well protected elevated positions (e.g. Ciglenečki 2000). A number of such settlements have been discovered in the vicinity of Kamnik: Sv. Primož and Stari grad, Grdavov hrib, Gradišče and Ivanjk in the Tuhinje valley (Vidrih Perko, Sagadin 2004, 217). The high altitude settlements in Eastern Carniola were positioned so that they could be clearly seen from the lowlands (Županek 2001, 53–58). Mengeš most likely remained an important lowland settlement at least until the Middle Ages (Sagadin 1995, 231).

The Early Middle Ages settlement pattern in the Kamniška Bistrica plain remained the same at least until the end of the Middle Ages: Kamnik became a local centre, Mengeš an important farming settlement and the earliest religious centre. It seems that Komenda had a special meaning even before it became an estate of the Maltese Order of Knights in the 13th century. The lowlands between these places can be perceived as the core around which settlements grew; this can be clearly

Do sedaj znane poznoantične naselbine ležijo predvsem na dobro zavarovanih višinskih legah (npr. Ciglenečki 2000). Nad Kamnikom je bilo več takšnih naselbin, tako Sv. Primož in Stari grad, Grdavov hrib nad Zgornjim Rudnikom ter v Tuhinjski dolini Gradišče in Ivanjk nad Šmartnim (Vidrih Perko, Sagadin 2004, 217). Višinske naselbine so bile na vzhodnem Gorenjskem postavljene tako, da so bile dobro vidne z ravninskih delov (Županek 2001, 53–58), tudi iz Mengša, ki je ostal pomembna naselbina bržčas neprekinjeno do srednjega veka (Sagadin 1995b, 231).

V zgodnjem srednjem veku je poselitev kamniško-bistriške ravni dobila podobo, kakršna se je ohranila vsaj do konca srednjega veka: Kamnik je postal lokalno središče, Mengeš pomembna agrarna naselbina in najzgodnejše cerkveno središče. Naselitveni center v Komendi je imel, kot kaže, posebno mesto tudi preden je postal posestvo (komenda) malteškega viteškega reda v 13. stoletju. Ravnice med temi kraji si lahko predstavljamo kot jedro, okoli katerega so se nizale naselbine, o katerih posredno pričajo grobišča v Komendi, Mengšu, pri Hudem in na Malem gradu (Štular 2002, 90–116).

V visokem srednjem veku so na območju Kamnika nastala tri poselitvena središča, ki so ohranila pomen do današnjih dni. To so mesto, Mali grad in Stari grad (*sl. 1.4*). Mali grad, imenovan tudi Spodnji grad, stoji na skalnem griču sredi mesta in je že od samih začetkov tesno povezan z njim. Predvsem v strokovni literaturi je Mali grad najbolj znan po t. i. malograjski kapeli. Ta je desetletja zbujala zanimanje strokovnjakov, najnovejše raziskave pa kažejo, da kapela ni tako neobičajna, kot se je zdelo (Oter Gorenčič 2007, 179–196). Stari grad ali tudi Zgornji grad s svojo lego na hribu nad mestom že od daleč opozarja popotnika na sloves, ki ga je imel Kamnik v srednjem veku. Čeprav se bomo v knjigi posvetili arheološkim raziskavam Malega gradu, pa je bila njegova usoda vedno tesno povezana tudi z mestom in Starim gradom.

1.2. ZGODOVINA RAZISKAV

Zaščitna dela na kamniškem Malem gradu so potekala v dveh sklopih, na vzhodnem delu gradu od leta 1978 do 1983 in na zahodnem od leta 1986 do 1995.

Na zahodnem delu, torej na območju visokosrednjeveškega predgradja oziroma poznosrednjeveškega stolpa, imenovanega tudi stražni stolp ali mestna utrdba (*sl. 1.5*), so bila izkopavanja od leta 1978 do 1983. Pozornost izkopavalcev je bila osredotočena predvsem na stolp (Sagadin 1982; isti 1983; isti 1984).

Izkopavanja so uradno postala strokovna arheološka izkopavanja šele proti koncu sezone 1986, ko je bil najden latenski nož (prim. Sagadin 1996, 110–111). Arheološke dokumentacije izkopavanj zahodnega dela malograjskega griča izpred leta 1986 torej ni. V letih 1986 do 1989 so izkopavali skrajni severni del (Sagadin 1987; isti 1988;

seen from the cemeteries found in Komenda, Mengeš, Hudo and Mali grad (Štular 2002, 90–116).

Three settlement centres appeared in the Kamnik area during the High Middle Ages, all of which preserved their importance until today. These are the town, Mali grad and Stari grad (Old castle). Mali grad, known also as Spodnji grad (Lower castle), is located on the rocky hill in the centre of the town and has been closely connected to it from its very beginning (*fig. 1.4*). In expert literature Mali grad is best known for its chapel. Researchers have been intrigued by the chapel for decades however the latest research indicates that the chapel is not as unusual as it appeared at first (Oter Gorenčič 2007, 179–196). Due to its position on the hill above the town Stari grad (also known as Zgornji grad, Upper castle) draws the attention of the traveller already from a distance and lets him know of Kamnik's Medieval reputation. Even though this book focuses on the archaeological research of Mali grad its destiny was always closely linked to the town and Stari grad.

1.2. THE HISTORY OF RESEARCH

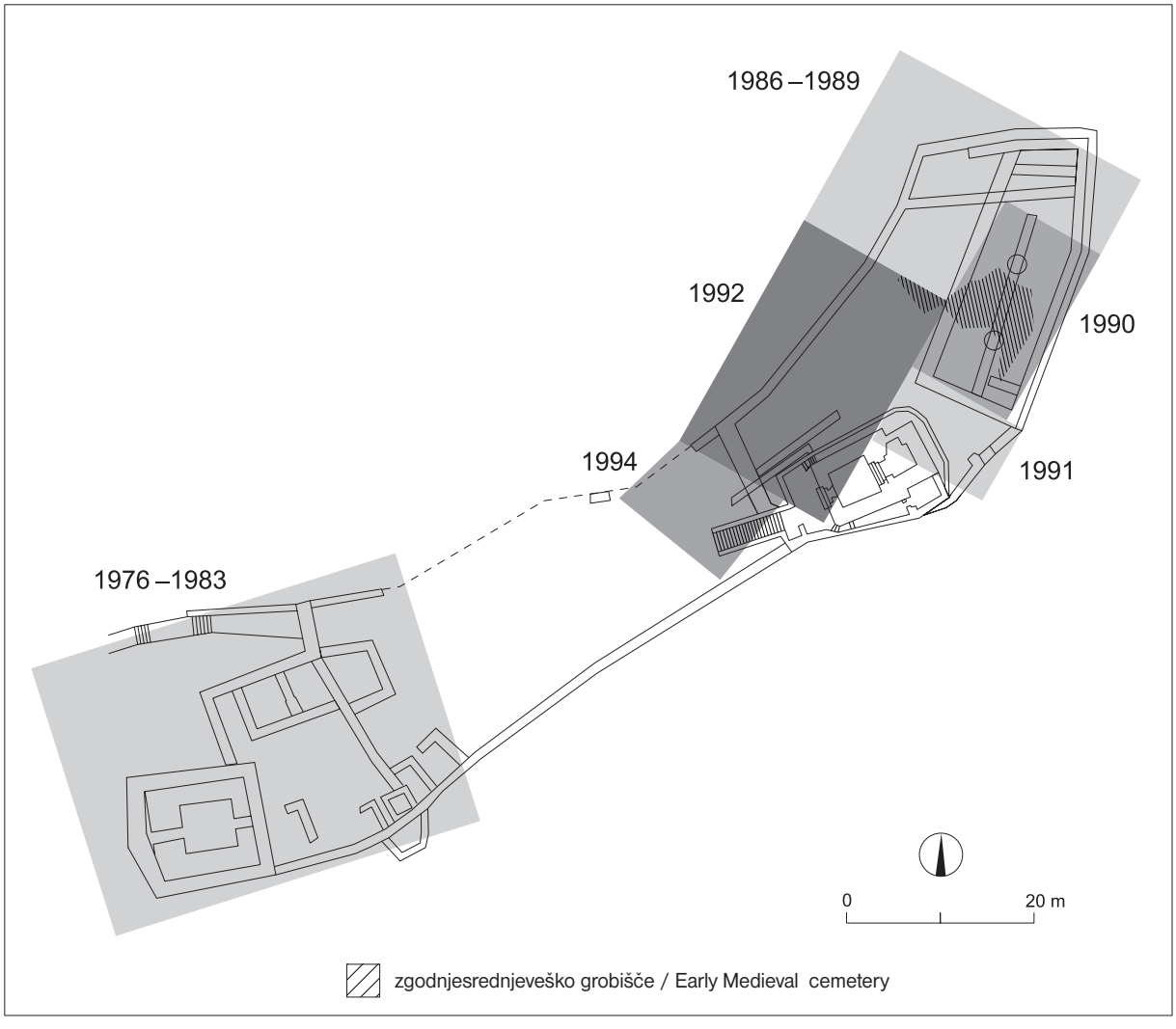
The archaeological research of Mali grad was carried out in two parts; the work on the eastern part of the castle took place between 1978 and 1983, and the excavations on the western part took place between 1986 and 1995.

Excavations on the eastern part, i.e. the area outside of the High Medieval castle and the area of the Late Medieval outer bailey and tower, also known as the 'watch tower' or 'town fortification wall' (*fig. 1.5*), took place between 1978 and 1983. During these excavations the focus was placed on the tower (Sagadin 1982; ibid. 1983; ibid. 1984).

The works became official expert archaeological excavations only towards the end of the 1986 season when a La Tène period knife was discovered (Sagadin 1996, 110–111). There is no pre-1986 archaeological documentation for the western part of the Mali grad hill. The northern part of the castle was excavated between 1986 and 1989 (Sagadin 1987; ibid. 1988; ibid. 1990). The 1990 excavations (Sagadin 1991a) focused on the area of the so called second Roman palatium, the 1991 excavations (Sagadin 1992) on the narrow space between the palatium and the Mali grad chapel and the 1992 excavations (Sagadin 1993) focused on the castle courtyard (*fig. 1.5*).

The materials from 1989 and 1990 are of extreme importance for further analysis. These materials originate from the interior of the buildings and have the best preserved archaeological documentation.

The quantity of the preserved artefacts reflects the intensity of the excavations as well as the manner of work. Most of the artefacts were documented in 1992.



Sl 1.5: Območje Malega gradu z označenimi areali izkopavanj (grafična predloga Sagadin 1997b, naslovnica; vir za areale Sagadin 1996, 110–111).
Fig.1.5: The Mali grad area with the excavation areals (graphic source Sagadin 1997b, title page; source for areals Sagadin 1996, 110–111).

isti 1990). Izkopavanja leta 1990 (Sagadin 1991a) so bila usmerjena na prostor t. i. drugega romanskega palacija, leta 1991 (Sagadin 1992) na ozek prostor med palacijem in malograjsko kapelo in leta 1992 (Sagadin 1995a) na grajsko dvorišče (*sl. 1.5*).

Za analize je izjemnega pomena gradivo iz let 1989 in 1990. To izvira iz notranjosti stavb, kjer je bil arheološki zapis najbolje ohranjen.

Skladna z intenzivnostjo izkopavanj in načinom dela je tudi količina ohranjenega gradiva. Največ gradiva je bilo dokumentiranega v letu 1992. Poleg tega je bila drugačna tudi izkopavalna strategija. Količinsko razmerje med ustji in ostalimi odlomki lončenine namreč kaže, da je bil v drugih letih določen izbor gradiva opravljen že med izkopavanji.

The excavation strategy also changed on an annual basis. The quantity relation between the rim-shards and other pottery fragments shows that in the other years a certain selection of materials was conducted already during the excavations.

2. PISNI VIRI

2.1. PRVI PROLOG: BAVARSKI MODEL POSTAVLJANJA GRADOV V PROSTOR

Novi gospodarji Kranjske so sredi 10. stoletja prihajali pretežno z Bavarske (glej dalje). Zato je pomembno poznati njihove predstave o urejanju prostora, t. i. mentalni model poselitve (za izraz glej Štular 2005d, 87–88), oziroma, če si sposodimo besede Mihe Kosija (2005b, 104), "gospodje ... so lahko pridobili obilo izkušenj in vzorov ... že v drugih nemških (...) pokrajinah". Kakorkoli ta dejavnik imenujemo, je imel pomemben vpliv na nadaljnji razvoj poselitve.

Zato moramo najprej poznati način umeščanja zgodnjih bavarskih gradov v prostor (Ettel 2001, 195–242; Ettel 2006). Začeti moramo s prikazom zgodnjesrednjeveške poselitve. Prvo stopnjo srednjeveških utrjenih naselij prepoznamo v utrjenih centrih frankovske države v 7. stoletju. V drugi polovici 8. stoletja so po vladarjevem naročilu nastale številne nove velike utrjene naselbine. V prvi polovici 9. stoletja, v času Karla Velikega, je dokumentiran nov val gradenj, ki hkrati priča o širjenju frankovskega imperija proti vzhodu. Poleg velikih utrjenih naselbin se prvič pojavijo tudi manjše utrdbe pravilnega tlorisa. V prvi polovici 10. stoletja je nastalo večje število utrdb z zemljenimi nasipi. Te so verjetno nastale kot odgovor na številne madžarske vpade v tem času. V 11. stoletju pa so velike utrjene naselbine postajale vedno manj pomembne ali pa so spremenile vlogo. Prevladujoča oblika utrjene naselbine so postali manjši gradovi, bodisi kot ministerialni sedeži bodisi kot vojaške utrdbe in pozneje kot upravni sedeži (npr. Karlburg, Oberammerthal). Gradove so postavljali na naravno zaščitenih mestih. Kjer so naravne danosti to omogočale, so jih postavili na vrhu hriba. V 11. stoletju so nekatera nastajajoča mesta prerastla predgradja in počasi prevzemala administrativne naloge, ki so bile sicer v domeni gradov. Nasploh so mesta v tem času postajala vse pomembnejša in so bila vse pogosteje tudi utrjena. Tako Würzburg že okoli leta 900, Karlburg pa verjetno v 10. stoletju.

Hkrati je potekala agrarna kolonizacija novih zemljišč, in to na dva načina. Prvi je t. i. notranja koloniza-

2. WRITTEN SOURCES

2.1. THE FIRST PROLOGUE: BAVARIAN MODEL OF PLACING CASTLES INTO THE LANDSCAPE

In the mid 10th century most of the new rulers of margraviate *Carniola* arrived from Bavaria (see further), which is why we should be aware of their ideas on spatial planning, i.e. the cognitive map of the landscape (for expression cf. Štular 2005d, 87–88), or if we borrow the words of Miha Kosi (2005, 104), "the gentry ... could obtain plenty of experience and influence ... already in other German (...) lands". Whatever we call this factor it had an important influence on the further development of the settling process.

This is why an introduction as to how the early Bavarian castles were placed into the landscape (Ettel 2001, 195–242; Ettel 2006) is needed. At first the Early Medieval settlement pattern will be presented. The first medieval fortified settlements can be found in the 7th century fortified centres of the Frankish state. In the second half of the 8th century the emperor ordered a number of large new fortified settlements to be built. In the Carolingian period (first half of the 9th century) a new wave of building that accompanied the Frankish state expansion towards the east can be observed. Apart from the large fortified settlements, smaller forts with a rectangular ground plan appeared for the first time. In the first half of the 10th century a number of forts surrounded by earth dykes emerged. These were most likely a response to the numerous Hungarian raids that dominated the period. In the 11th century large fortified settlements lost on their importance and some of them changed their role. Smaller castles became the main form of fortified settlements: some were ministerial headquarters, others military forts and later on some developed into administrative headquarters (for instance Karlburg, Oberammerthal). The castles were positioned on naturally protected locations. If the natural characteristics permitted they were placed on top of hills. In the 11th century some emerging towns grew out of the outer castle baileys and slowly took over the administrative tasks that previously belonged under the jurisdiction of castles. As a rule towns were growing

cija, torej izkoriščanje manj ugodnih površin na obstoječem območju poselitve. Drugi način je t. i. kolonizacija navzven, širjenje naselitvenega območja. Slednjo, gledano s stališča nekega ozemlja, imenujemo tudi kolonizacija od zunaj. Na Bavarskem gre za širitev proti vzhodu, predvsem na vzhodni del severne Bavarske.

Za nas je najpomembnejši odnos med novonastalimi gradovi in območji kolonizacije. Nekatere plemiške družine so gradove postavljale v središču starejše poselitve, druge so jih zgradile na stiku z novokoloniziranimi območji. V naslednjih stoletjih so bile tiste, ki so gradile gradove na stiku med območjem stare poselitve in nove kolonizacije, uspešnejše (Ettel 2001, 220–222, 242; Ettel 2006, 42–45).

Kot bomo pokazali v sklepnem poglavju, se zdi, da so bavarski plemiči ta model poselitve v nekaterih primerih prenesli na Kranjsko.

2.2. DRUGI PROLOG: ANDEŠKI

Plemiška rodbina Andeških se je imenovala po bavarskem gradu Andechs, kamor so prenesli starejši sedež rodbine z gradu Dießen (Zeune 1998, 177–178). Gre za eno najvplivnejših rodbin visokosrednjeveškega Svetega cesarstva. Z zgodovino te družine je popisanih na stotine strani (npr. Meyer et al. 1987; Arneth 1997; Schneidmüller 1998; Schütz 1993; Schütz 1998; Schütz 2001). S stališča visokosrednjeveškega Malega gradu je zagotovo najkoristnejša izčrpna študija žal prezgodaj preminulega Andreja Komaca (2006).

Že sredi 11. stoletja so bili predniki Andeških nosilci grofovskih pravic v tistih delih Bavarske, ki so pozneje sestavljali grofiji Diessen-Andechs in Wolfratshausen. Vzpon rodbine se je začel pod Bertoldom II., ki se je v prvi polovici 12. stoletja učvrstil na Frankovskem in se je od leta 1137 imenoval tudi po tamkajšnji grofiji Plassenburg. Preko svoje žene Sofije Orlamündske, hčere umrlega istrskega krajišnika Popona, je približno v istem času pridobil tudi sklenjeno posest na Gorenjskem (glej dalje). Že v začetku 12. stoletja so bili njihovi ministeriali na več kot 60 gradovih na Bavarskem in na Tirolskem v bližini poznejšega Innsbrucka (Komac 2006, 102–105).

Glavni gradovi Andeških so bili že pred letom 1150 vsaj delno prestižno grajeni (Zeune 1998, 182). Hkrati so Andeški na vsakem svojem vplivnem območju ustanovili vsaj eno mesto ali utrjen trg, med drugimi Innsbruck na Tirolskem, Slovenj Gradec na Koroškem in Dießen ter še vsaj šest mest na Bavarskem (Dippold 1998). Prostorsko razprostranjenost teh središč najverjetneje lahko razlagamo s pritiskom vojvodskih Wittelsbachov na Bavarskem. To je Andeške prisililo, da so prenašali svoja težišča in ustanavljanje urbanih središč predvsem na svoje obrobne posesti (Kosi 2005b, 103).

Andeški so v času Bertolda III., sina Bertolda II., skokovito napredovali po družbeni lestvici predvsem

in importance during this period and as their importance grew so did their fortifications. Good examples of this are Würzburg as early as around the year 900 and Karlburg most likely in the 10th century.

At the same time the agricultural colonisation of the newly acquired lands was underway. This took place in two ways: the first was the so-called internal colonisation, i.e. exploitation of the less favourable land within the already acquired areas. The second was external colonisation, i.e. expanding the settlement area. In Bavaria this took place in the form of an expansion towards the east, especially towards the eastern part of northern Bavaria.

The relationship between the newly built castles and the colonised areas is of greatest relevance to our research. Some noble families erected their castles in the centre of an older settlement area while the others built them on the border with the newly colonised areas. In the centuries to come the families who erected castles on the borders between the areas of old settlements and new colonised areas have proven to be more successful (Ettel 2001, 220–222, 242; Ettel 2006, 42–45).

As it will be shown in the final chapter it seems that the Bavarian gentry brought this cognitive landscape map to the *Carniola* region.

2.2. PROLOGUE NO. 2: THE ANDECHS

The Andechs family was named after the Bavarian castle Andechs, to where they moved their family headquarters from the castle Dießen (Zeune 1998, 177–178). This was one of the most influential families in the High Medieval Holy Roman Empire. Hundreds and hundreds of pages were filled describing the history of this family (e.g. Meyer, Roth, Guth 1987; Arneth 1997; Schneidmüller 1998; Schütz 1993; Schütz 1998; Schütz 2001). From the viewpoint of the High Medieval Mali grad the extensive study by the too early departed Andrej Komac is of greatest importance (2006).

Already in the middle of the 11th century the predecessors of the Andechs were the carriers of the Count rights in the parts of Bavaria that later constituted the counties Diessen-Andechs and Wolfratshausen. The family started gaining on importance under Berthold II who strengthened his position in the Frankish state during the first half of the 12th century. From 1137 onwards he called himself after the county of Plassenberg. Through his wife Sophie von Orlamünd, the daughter of Popon (the deceased Margrave of Istria), he obtained estates in *Carniola* (see further) at roughly the same time. At the beginning of the 12th century the Andechs ministerial held over 60 castles in Bavaria and the Tyrol in the vicinity of later Innsbruck (Komac 2006, 102–105; see fig. 3.5.).

zaradi dobrih odnosov s cesarjem in sorodstvenih vezi z drugim visokim plemstvom ter visoko duhovščino. Bertoldu III. je leta 1173 cesar Friderik Barbarosa podelil naziv istrskega mejnega grofa. Najpozneje leta 1180 je njegov sin Bertold IV. prvič omenjen tudi kot vojvoda Meranije. Ta je najverjetneje pomenila istrsko obalo ob Kvarnerskem zalivu. Povišanju družine v vojvodski naslov je botroval položaj med rivalskimi grofovskimi družinami na Bavarskem in predvsem prizadevanja cesarja, da utrdi svoj položaj na jugovzhodu cesarstva. V času Bertolda IV. je družina pridobila še posestva na Tirolskem in v Burgundiji (Mihelič 2005, 70–71; Komac 2006, 55–63; prim. Schütz 1998, 19-30; Aigner 2001).

Ko je 12. avgusta leta 1204 umrl vojvoda Bertold IV., je bila dinastija Andeško-Meranskih na vrhuncu (*sl. 2.1; sl. 2.2*). Hči Hedviga je bila poročena z vojvodo Henrikom I., Agnes s francoskim kraljem Filipom II., Gertruda z madžarskim kraljem Andrejem. Sin Ekbert je postal bamberški škof, mlajši brat Bertold V. je bil na poti do še višjega položaja v cerkveni hierarhiji in je pozneje postal oglejski patriarh. Sinova, ki sta ostala v laičnem stanu, Oton VII. in Henrik IV., sta podedovala večino družinskega premoženja. Oton je poleg vojvodskega naslova podedoval posesti v Franciji in na Bavarskem, Henrik

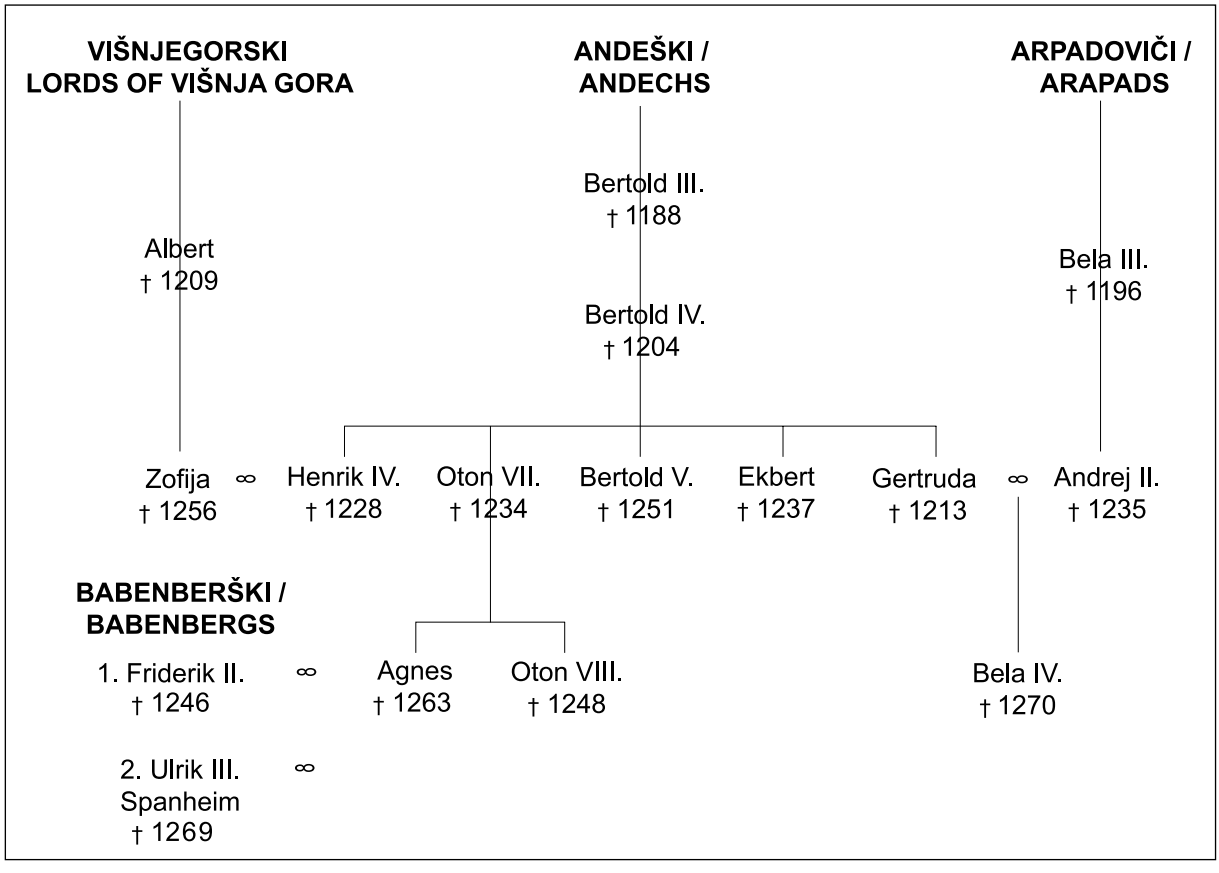
Already prior to 1150 the main Andechs' castles were (at least to some extent) built in a prestigious manner (Zeune 1998, 182). At this time the Andechs founded at least one town or fortified market in each of their influential areas – amongst them one can find Innsbruck in the Tyrol region, Slovenj Gradec in *Carinthia*, Dießen and at least six other towns in Bavaria (Dippold 1998). The spatial distribution of these centres can probably be explained by the pressure of the Wittelsbach Dukes in Bavaria. This forced the Andechs to move their centres and create most of their new urban centres on their border estates (Kosi 2005, 103).

During the period of Berthold III (the son of Berthold II) the Andechs rapidly climbed the social ladder; this was mainly due to the good relations with the Emperor and the family ties with other high gentry and high clergy. In 1173 the Emperor bestowed Berthold III with the title Margrave of Istria. No later than 1180 his son Berthold IV was mentioned as the duke of Merania. The duchy of Merania most probably consisted of the Istrian coast alongside the Kvarner Gulf. The rise of the family to the ducal title was generated by the rivalry between the various Bavarian counts and by the endeavours of the Emperor to fortify his position in the south-east



Sl. 2.1: Kronika Freytag, fol. 5, 1451. Andeško-Meranski na vrhuncu moči. V sredini vojvoda Bertold IV. in žena Agnes. Ob njiju njuni otroci (od leve proti desni) hčere Elizabeta, turinška grofica, madžarska kraljica Gertruda, francoska kraljica Agnes, šlezijska vojvodinja Hedviga in oglejski patriarh Bertold V., bamberški škof Ekbert in vojvoda Oton VII. Ob nogah kot dojenček Mehtilda. Henrik IV. ni prikazan.

Fig.2.1: Freytag Chronicles, fol. 5, 1451. The Andechs-Meroving family at the height of their power. In the centre we can see duke Berthold IV and his wife Agnes. Next to them are their children (from left to right): the daughters - Elizabeth, the Countess of Turin; Gertrude, the Queen of Hungary; Agnes, Queen of France; Hedwig, the Duchess of Silesia; and sons - Berthold V, the Patriarch of Aquileia; Egbert, the Bishop of Bamberg and Duke Otto VII. At their feet is Mathilde as a baby while Heinrich IV is not depicted.



Sl. 2.2: Genealoška preglednica Andeških v 12. in 13. Stoletju (vir: Komac 2006, 83).
Fig. 2.2: Genealogic chart of the Andechs in the 12th and 13th centuries (source: Komac 2006, 83).

pa poleg grofovskega naziva posesti južno od Donave in alpske posesti (Schütz 1993, 89; Schütz 1998, 30).

Usoden dogodek za rodbino Andeških se je zgodil leta 1208 v Bambergu. Bertoldova sinova Henrik IV. in Ekbert sta bila zaradi suma sodelovanja pri umoru kralja Filipa II. izobčena. Novi kralj Oto IV., najverjetneje sam pravi zarotnik, je Henriku IV. odvzel državne fevde in alode (*sl. 2.5;* Hucker 1998; Schütz 2001). To je pomembno vplivalo na razvoj dogodkov na Bavarskem, na Kranjskem pa ne. Še več. Leta 1209 je Henrik IV. Andeški s poroko z grofico Sofijo Višnjegorsko svojo posest močno povečal (Komac 2006, 81). A desetletje izobčenja, ki se je tiho končalo z izvolitvijo Bertolda V. Andeškega za oglejskega patriarha leta 1218, je Henrik na Kranjskem lahko prebrodil predvsem z opiranjem na solidno organizirano regionalno izvršno oblast, zveste ministeriale. V tem času je bila njegova *alpska domovina* (Schütz 1993, 89) Kranjska s središčem posesti v Kamniku (Komac 2006, 259). Kljub kraljevemu izobčenju je deset let izvajal neposredno oblast na Kranjskem in nato nadaljeval politično kariero, katere uspeh je prekinila smrt leta 1228 v Slovenj Gradcu (Kos 2001, 27–30).

Pozneje so drug za drugim tudi preostali moški potomci Bertolda IV. umrli brez moških potomcev,

part of the Empire. During the period of Berthold IV the family also obtained estates in the Tyrol and Burgundy (Mihelič 2005, 70-71; Komac 2006, 55–63; cf. Schütz 1998, 19-30; Aigner 2001).

When duke Berthold IV died on 12th August 1204 the Andechs-Meranier dynasty was at the height of its powers (*fig. 2.1; fig. 2.2*). The daughter Hedwig was married to Duke Heinrich I, Agnes to the French king Fillip II and Gertrude to the Hungarian king Andreas. The son Egbert became the Bishop of Bamberg, while the younger brother Berthold V was already on the way to an even higher position in the church hierarchy and later became the Patriarch of Aquileia. The two sons that remained in laymen positions - Otto VII and Heinrich IV - inherited most of the family estate. With the ducal title Otto also inherited estates in France and Bavaria while Heinrich inherited the ducal title and the estates south of the Danube river and the Alpine estates (Schütz 1993, 89; ibid 1998, 30).

In 1208 a crucial event for the family took place in Bamberg. Berthold's sons Heinrich IV and Egbert were ostracised due to the suspicion that they played a role in the murder of king Filip II. The new king Otto IV, most probably the true conspirator, took the state feuds and allodia from Heinrich IV (*fig. 2.5;* Hucker 1998; Schütz

kot zadnji Bertold V., oglejski patriarh. Zadnja oseba, ki je nosila ime Andeških, *domina Carniolae* Agnes, nečakinja Henrika IV. in žena Ulrika III. Spanheima, je umrla leta 1263.

2.3. NASTANEK IN RAZVOJ KRANJSKE

Za razumevanje vloge rodbine Andeških na Kranjskem v visokem srednjem veku je treba poznati tudi nastanek in razvoj Kranjske, kot je to obdobje poimenoval Ljudmil Hauptman (1929).

Mejna grofija Kranjska se je izoblikovala po zmagi Otona I. nad Madžari v bitki na Leškem polju pri Augsburgu leta 955. Najprej velja pojasniti dvojnost poimenovanja. Ime *Carniola*, mala Karnija, izvira iz poimenovanja antičnega ljudstva Karnov in Karnije, njihove domovine. Iz istega korena izvira tudi keltsko-romansko krajevno ime *Carnium*, katerega slovenjena oblika je Kranj. Ime *Creina* pa je slovanskega izvora, od izraza "krajina", še posebej v pomenu mejna pokrajina, kar je Kranjska v 10. stoletju bila. Poimenovanje *Creina marcha* je torej tavtološko, saj je *marcha* germanska sopomenka slovanski *Creina*, krajina. V visokem srednjem veku je prevladala slovenska oblika poimenovanja po središču, Kranjska. Krajina - Kranj - Kranjska torej. Nemci so slovansko Krajino ponemčili v Krain (Štih 1996; Hauptman 1999). Formulacija, zapisana v darovnici cesarja Otona II. iz leta 973, razkriva zapletenost nastanka visokosrednjeveške Kranjske: ... *quod Carniola vocatur et quod vulgo Creina marcha appellatur* ...[1] Zapis vsebuje staroselsko, slovansko in nemško poimenovanje. Tavtologija slovansko-nemškega zapisa nosi sporočilo: kaže, kdo v prostor vstopa in kdo v njem predstavlja 'ljudstvo'.

Morda se lahko ognemo zgodnjesrednjeveškemu uvodu (npr. Bratož 2000; Štih 1995) in izhajamo iz navedenih listin. Gre za listino cesarja Otona II., s katero je škofija v Freisingu dobila obsežno zemljiško posest s poznejšo Škofjo Loko. To je najstarejši ohranjeni vir, ki dokumentira Kranjsko kot posebno grofijo bavarskega oziroma koroškega vojvode (Štih 1996, 13; Štih 2005, 41–43).

Otonska Kranjska je sprva obsegala Gorenjsko, Ljubljansko kotlino in vzhodno Notranjsko. Še izpred konca 10. stoletja sta nam znana dva mejna grofa, Popon in Waltilo. Na prelomu tisočletja je bila Kranjska, prej podrejena Koroškemu vojvodi, povzdignjena v državno marko. Tako je med letoma 1004 in 1011 na Kranjsko kot mejni grof prišel potomec zelo ugledne južnonemške plemiške družine Ulrik Sempt-Ebersberg. Pod njegovim sinom in naslednikom Eberhardom se je marka razširila še na prej samostojno Savinjsko marko. Funkcijo mejnega grofa je nasledil Ulrik Weimar-Orlamünde, ki je najpozne-

[1] Kos 1906, št 444.

2001). This played a great role in the future events in Bavaria, but did not influence the events in *Carniola*. On the contrary! In 1209 Heinrich IV of Andechs married the duchess Sophia of Višnja Gora, with which he expanded his estate greatly (Komac 2006, 81). In *Carniola* Heinrich managed to overcome the decade of excommunication (that was silently brought to an end in 1218 with the election of Berthold V of Andechs to the post of the Patriarch of Aquileia) by leaning on a solidly organised regional executional power, his faithful ministerials. During this period he controlled his *Alpine homeland* (Schütz 1993, 89) *Carniola* from the centre of the estate in Kamnik (Komac 2006, 259). Regardless of the excommunication he ruled in *Carniola* for ten years and then continued his political career which was ended by his sudden death (without any male offspring) in Slovenj Gradec in 1228 (Kos 2001, 27–30).

The remaining male descendents of Berthold IV also died without any male offspring, the last of them being Berthold V, the Patriarch of Aquileia. The last person to carry the Andechs name was the *domina Carniolae* Agnes, the niece of Heinrich IV and wife of Ulrik III of Spanheim. She died in 1263.

2.3. THE ORIGIN AND EVOLUTION OF *CARNIOLA*

In order to understand the role of the Andechs family in *Carniola* during the High Medieval period, one has to be acquainted with the origin and evolution of *Carniola* in the 10th and 11th centuries (Hauptman 1929).

The margraviate *Carniola* was formed following the victory of Otto I over the Hungarians in the battle of Lechfeld at Augsburg in 955. At first the duality of the name should be explained. The name *Carniola*, small Carnia, originates from the name of the pre-Roman period people of Carn and Carnia - their homeland. The Celtic-Roman local name Carnium (Kranj in Slovenian) is derived from same root. The name *Creina* is of Slavonic origin, derived from the expression 'krajina' (region), especially in the meaning of a border region - which *Carniola* was in the 10th century. The name *Creina marcha* is therefore a tautology, for *marcha* is the German word for a border region.

In the High Medieval period Kranjska, the Slovenian version of the name prevailed, Krajina - Kranj - Kranjska (Region, Kranj, *Carniola*). Later the Germanised version of the Slavonic Krajina - Krain was used (Štih 1996; Hauptman 1999). The formulation written in the deed of gift signed by Emperor Otto II (dating to 973) reveal the complexity of the origin of High Medieval *Carniola*: '... *quod Carniola vocatur et quod vulgo Creina marcha appellatur* ...'[1] The record includes the pre-Slavonic as well

[1] Kos 1906, No. 444.

je leta 1061 postal tudi istrski mejni grof. Leta 1093 se kot mejni grof omenja Ulrikov sin Popo, oče Sofije, žene Bertolda II. Andeškega. Z dedovanjem preko Sofije so zatem Andeški za dobro stoletje prišli do najpomembnejših vzvodov moči na Kranjskem, največje sklenjene zemljiške posesti na Kranjskem (Štih 2001, 17–35; Hauptman 1999, 49–78; prim. Kos 2001, 186–188).

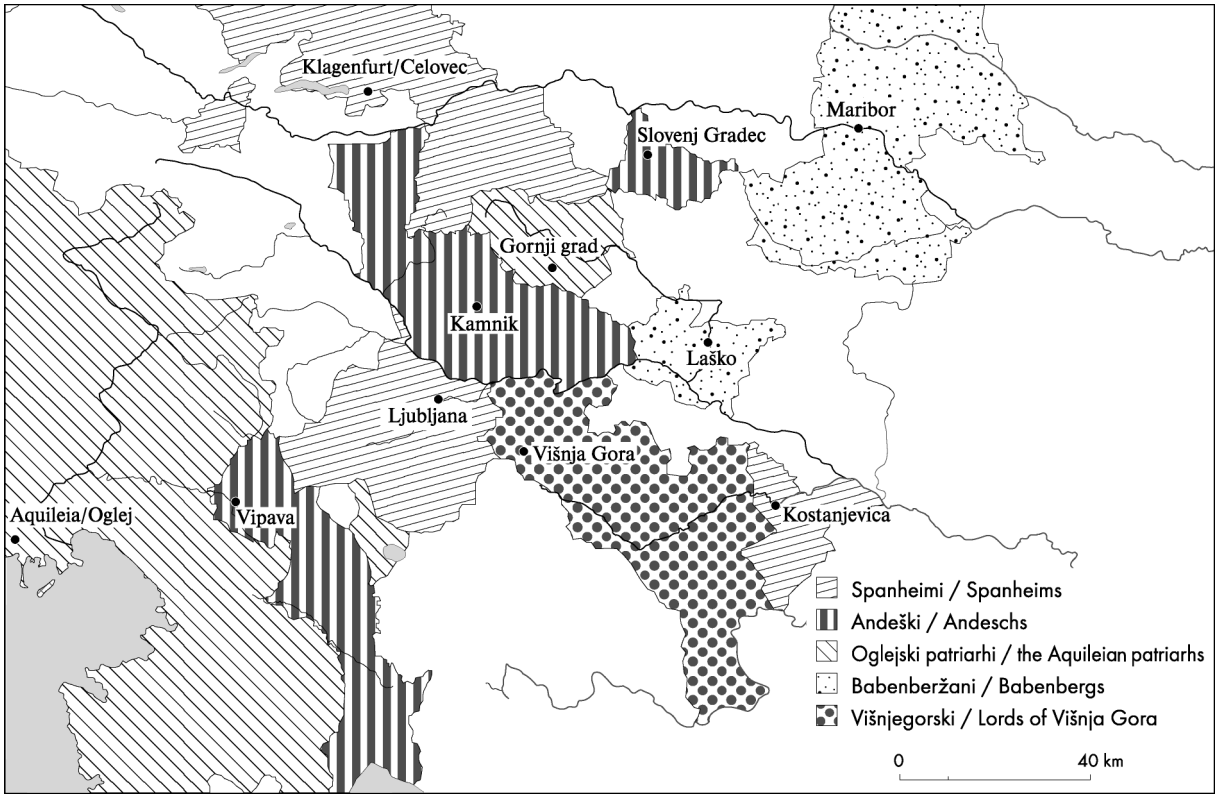
Razumevanje razvoja Kranjske v drugi polovici 12. in predvsem v 13. stoletju, ki je temeljilo predvsem na Hauptmanovi (1929; nazadnje Štih 2001) interpretaciji t. i. *Cremonske listine,* se je v zadnjem času močno spremenilo (Komac 2006).

Do začetka 12. stoletja so se na ozemlju Kranjske razvila velika teritorialna gospostva, ki so drugo poleg drugega delovala povsem samostojno in neodvisno od formalnega kranjskega mejnega grofa, oglejskega patriarha. Eno pomembnejših je bilo gospostvo Andeških (*sl. 2.3*). Tem je naziv istrskih mejnih grofov in vojvod meranskih pomagal, da so lažje širili svoj vpliv. Posesti je Henrik IV. z dediščino po Višnjegorskih močno povečal leta 1209, pri čemer je verjetno stremel k zaokroževanju svojih posesti med Alpami in Jadranom. Tako je prišel do dobrega izhodišča za razvoj neodvisne dinastične tvorbe. Ob ugodnem razpletu bi imela ta tvorba lahko status mejne grofije. Toda zgodnja smrt Henrika IV. leta

as the Slavonic and German name. The tautology of the Slavonic-German name carries a message: it shows who is new to the region and who represents the 'nation'.

Following the Early Medieval period (e.g. Bratož 2000; Štih 1995,) the oldest preserved written document was issued on behalf of Emperor Otto II. This document transferred vast territories (including what was later to become Škofja Loka) to the diocese in Freising. This is the oldest preserved source that documents *Carniola* as a special duchy of the Bavarian or Carinthian Duke, margraviate *Carniola* (Štih 1996, 13; Štih 2005, 41–43).

In Ottonian times *Carniola* consisted of today's Gorenjska region, the Ljubljana basin and the Eastern Notranjska region. The two Margraves - Popon and Waltilo - were known before the end of the 10th century. At the break of the millennia, Carniola - previously under the Carinthian duke – was given the status of a *Marcha*, thus making it margraviate *Carniola*. Between 1004 and 1011 Ulrik Sempt-Ebersberg, the son of a highly respected south German noble family, arrived to *Carniola* as the Margrave. Under his son and heir Eberhard the country spread to include the previously independent Savinja *Marcha*. The function of the Margrave was inherited by Ulrik Weimar-Orlamünde, who by 1061 (at the latest) became also the Margrave of Istria. In 1093 Ulrik's son Poppo was mentioned as the



Sl. 2.3. Posesti najpomembnejših dinastov Kranjske na začetku 13. stoletja (vir: Komac 2006, zemljevid 2 – avtor M. Kosi; vir za relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Fig.2.3. Estates of the most important dynasties of Carniola at the beginning of the 13th century (sources: Komac 2006, map 2 by M. Kosi; DMV 12,5, November 2005, © Geodetska uprava Republike Slovenije).

1228 je preprečila združevanje ozemelj na jugovzhodu cesarstva in morebitnega oblikovanja lastne dežele (Komac 2006, 259–261).

Po smrti Henrika IV. Andeškega leta 1228 se je vnel boj tako za dediščino kot tudi za politično premoč na Kranjskem. Gospostvo nad andeškimi posestvi od Jadrana do Alp so s poroko sina avstrijskega vojvode Leopolda VI. Friderika II. s Henrikovo nečakinjo in dedinjo Agnes prevzeli Babenberžani. Opirajoč se na to posest si je Friderik II. kot prvi nadel naslov gospod Kranjske, *dominus Carniole*. Kot kaže, je s svojo nedejavnostjo v to tiho privolil formalni mejni grof Kranjske, oglejski patriarh Bertold V. Andeški. Boj za prevlado nad ozemljem nekdanje mejne grofije Kranjske se je nadaljeval do sredine 13. stoletja. Leta 1251 je umrl zadnji moški predstavnik Andeških, leta 1263 pa tudi zadnja svoje rodbine Agnes Andeška (prim. Hauptman 1999, 49–78; Štih 2001, 17–-35; Kos 2001, 186–188; Komac 2006, 81–144).

Odločilno za nastanek dežele Kranjske kot ustavno-teritorialne enote ter integracijo deželnega plemstva je bilo politično podjetje koroškega vojvode Ulrika III. Spanheima v tretji četrtini 13. stoletja. Ta se je poročil z že omenjeno Agnes Andeško, ki se je ločila od Friderika II., in leta 1250 sklenil vojaški sporazum z oglejskim patriarhom Bertoldom V. Andeškim. Sporazum je bil sklenjen v Mengšu, listina pa je bila spisana v zgornji kapeli spodnjega gradu v Kamniku. Ulrik III. je naslovu gospoda Kranjske dodal še naslov gospoda marke, *dominus Carniole et Marchie*. Najpomembnejše za Ulrikov uspeh je bilo, da je znal pridobiti in integrirati različne skupine ministerialnega plemstva v homogeno deželno plemstvo, ki je predstavljalo glavni dejavnik moči v regiji. Do konca šestdesetih let 13. stoletja so vsi v deželi naslavljali Ulrika kot gospoda Kranjske. Ulrikova (+1269) politika je bila uspešna in je pripeljala do oblikovanja dežele Kranjske (Komac 2006, 264–265).

2.4. ANDEŠKE POSESTI Z MINISTERIALI NA KRANJSKEM

Šele ko poznamo Andeške in imamo pregled na visokosrednjeveško zgodovino Kranjske, lahko razumemo razvoj teritorialnega zemljiškega gospostva Andeških na Kranjskem.

Osrednja oblast Andeških je bila osredotočena med Tržiško Bistrico, Savo, Limberkom in Tuhinjem ter na Slovenj Gradec. Andeški grofje so ob prihodu z Bavarske pripeljali s seboj nekaj ministerialnih družin, pozneje pa so vzpostavili odnose tudi z 'domačimi', prej weimar-orlamündskimi ministeriali (Kos 2001, 188–190). Slednji so v 11. in 12. stoletju živeli na območju najstarejše fevdalne kolonizacije, v večjih vaseh ob cestah severno in vzhodno od Kranja (Kos 1960, 57 in 60), in so postali podložni andeškim skupaj z zemljo.

Margrave; he was the father of Sophia, the wife of Berthold II of Andechs. Through Sophia's inheritence the Andechs acquired the most important sources of power in *Carniola*, the largest estates in *Carniola* that they managed to maintain for over a century (Štih 2001, 17–35; Hauptman 1999, 49–78; cf. Kos 2001, 186–188).

The understanding of the development of the margraviate *Carniola* during the second half of the 12th and especially in the 13th century was predominantly based on Hauptman's (1929; the last Štih 2001) interpretation of the so-called *Cremona document* - until recently, when it changed dramatically (Komac 2006).

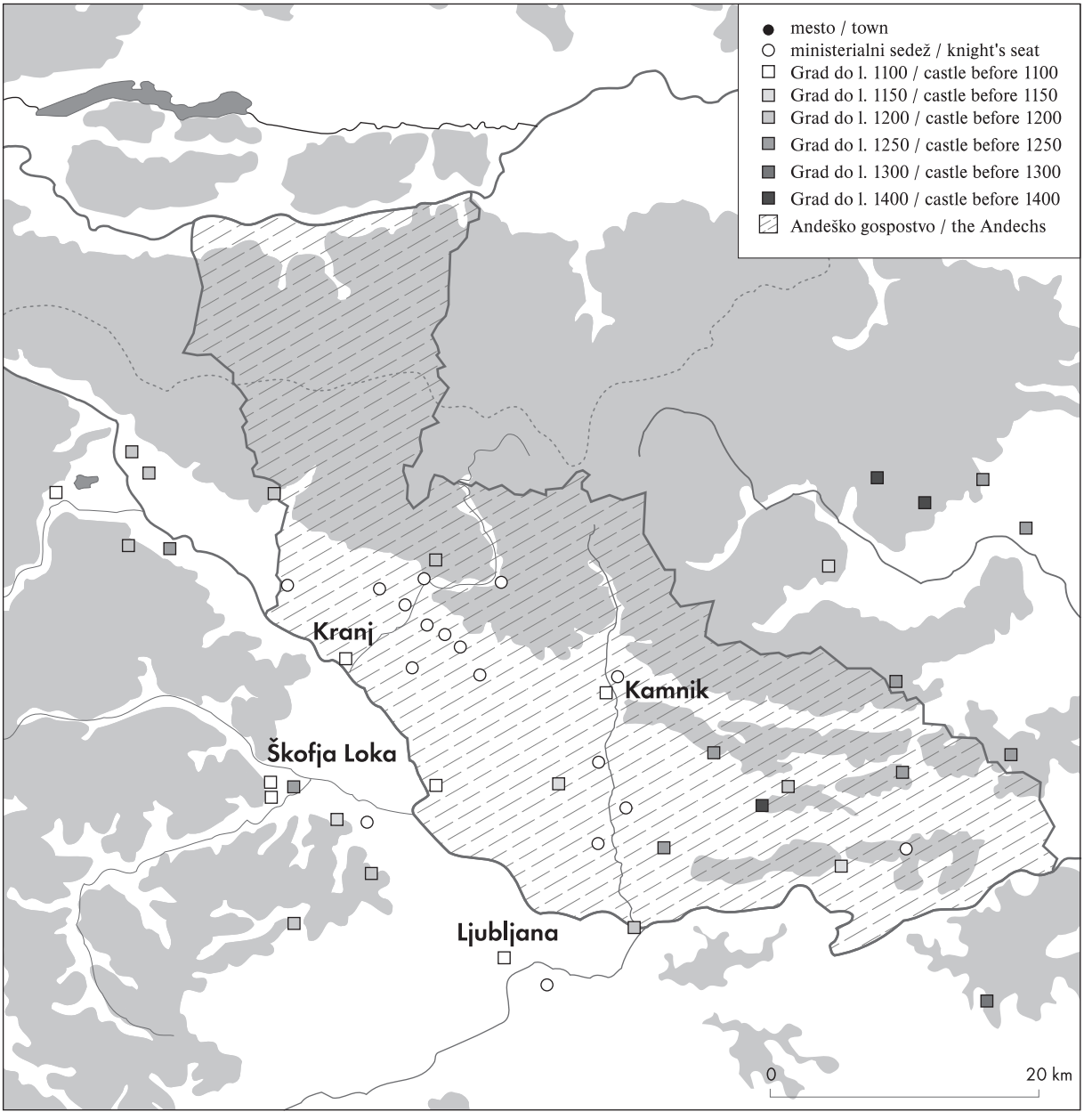
Up to the beginning of the 12th century large territorial estates in *Carniola* were developed by a few dynasties of noble families. These noble families functioned independently from each other and the formal Margrave of *Carniola*, the Aquileia Patriarch. One of the most important families was the Andechs family (*fig. 2.3*). The titles of the Margrave of Istria and the Duke of *Merania* helped them spread their influence. The Andechs family estate spread immensely when Heinrich IV inherited the estates of the lords of Višnja gora (Weichselburg) in 1209. It is likely that Heinrich IV wished to join his estates between the Alps and the Adriatic. The annexation of the mentioned estates gave him a good starting point for developing an independent dynasty. However, his premature death (and lack of male offspring) in 1228 prevented the territories in the south-east of the Empire to be merged and with this all dreams of an independent country disappeared (Komac 2006, 259–261).

The death of Heinrich IV triggered the battle for the inheritance and political domination in *Carniola*. Through the marriage of Friderik II, the son of the Austrian Duke Leopold VI, to Heinrich's niece and heiress Agnes, the estates between the Adriatic and the Alps were taken over by the Babenberg family. As the ruler of these lands Friderik II was the first to give himself the title of *dominus Carniole*. The silence of the formal Margrave of *Carniola*, the Aquileia Patriarch Berthold V of Andechs, gave the impression that he agreed to this turn of events. The struggle for the domination over the territories of the former margraviate *Carniola* continued until the middle of the 13th century. In 1251 the last male representative of the Andechs family died and as the last of her family Agnes Andechs passed away in 1263 (see Hauptman 1999, 49–78; Štih 2001, 17–35; Kos 2001, 186–188; Komac 2006, 81–144).

The political operations of the Carinthian Duke Ulrik III of Spanheim in the third quarter of the 13th century were decisive for the establishment of *Carniola* as an administrative-territorial unit as well as for the integration of the local lower status gentry. He married the previously mentioned Agnes of Andechs, who divorced Friderik II. In 1250 he signed a military contract with the patriarch of Aquileia, Berthold V Andechs. A concord was reached in Mengeš and the document was

Pri tem je opazna razlika med andeškimi ministeriali zahodno in vzhodno od Kamniške Bistrice (*sl. 2.4*). Ministerialnih družin je bilo več zahodno od te in se večkrat pojavljajo v virih že v 12. stoletju. Vendar so ministeriali vzhodnih posesti, ki se omenjajo od 13. stoletja dalje, pogosteje posedovali trdnejša grajska poslopja. Slednji so večinoma pripadali družinam, ki so jih Andeški po bavarski tradiciji naselili v središču zemljiškega gospostva. Te so se pozneje premišljeno razdelile na tesno povezane veje. Najzgodnejša omemba zanesljivo andeških ministerialov se tako nanaša na Viljema iz Mekinj in Karla

written in the upper chapel of Mali grad in Kamnik. Ulrik III was thus not merely the Lord of *Carniola* but also the Lord of the margraviate, *dominus Carniole et Marchie*. The most important for Ulrik's success was that he knew how to gain and integrate various groups of the ministerial gentry into unified country gentry that represented the main power in the region. Until the end of the 1260s everybody in the land addressed Ulrik as the Lord of *Carniola*. Ulrik's (+1269) politics were successful and led to the formation of the land of *Carniola* (Komac 2006, 264–265).



Sl 2.4. Andeško gospostvo na Gorenjskem v prvi polovici 13. stoletja (vir: Komac 2006, zemljevid 4 avtorja M. Kosi; vir za relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Fig. 2.4. The Andechs' family estate in Carniola during the first half of the 13th century (sources: Komac 2006, map 4 by M. Kosi; DMV 12,5, November 2005, © Geodetska uprava Republike Slovenije).

iz Kamnika[2], oba torej iz upravnega središča Andeških. Najpomembnejši andeški ministerial na Gorenjskem pred sredino 12. stoletja je bil Majnhard Schabab (Kos 2001, 191–192).

Sredi 12. stoletja so se nekateri zahodnokamniški ministeriali postavili na čelo nižjih ministerialov in začeli z vednostjo grofov širiti svojo posest. Soodvisen proces je upad števila svobodnega plemstva v andeški grofiji. Kot ilustracija tega procesa služi primer stranske veje rodbine Schabab. Majnhard Schabab, ustanovitelj rodbine, je imel matični dvor v dolini Kokre. Bil je med prvimi omenjenimi ministeriali, a je umrl kmalu po letu 1154. Toda njegova rodbina je zadržala vodilni položaj na kamniško-kranjskem teritoriju. To dokazuje razprostranjenost rodbine: bratje Majnhalm, Gerloh in Albert so imeli dvor v Velesovem, Wecelin na Bregu pri Kokri, Magens oziroma Meingoto de Hus morda v Mengšu in Karel v Kamniku. Sin Albert je bil celo zadolžen za gradnjo gradu Gutenberg, katerega vloga je bila varovati zahodno mejo gospostva (Kos 2001, 194–195). S stališča Andeških gre za proces konsolidacije oblasti.

Na tem mestu velja opozoriti na selitev središča iz Kranja v Kamnik. Neposrednih dokazov, da se je to zgodilo pod Andeškimi, ni. Kljub temu vse poteze, od selitve središča iz mesta na grad, iz središča 'stare' Kranjske na staro mejo s Savinjsko krajino in zgoraj opisano nameščanje ministerialov, kažejo načrtno in dobro premišljeno delovanje. Gospostveni center v Kamniku se je dokončno oblikoval za časa Bertolda III. (+ 1188). V Malem gradu so andeški grofje naselili bavarsko ministerialno družino (Kos 2001, 197–198). V času Bertolda IV. in Henrika IV. je Kamnik dobil nov položaj v andeški družinski politiki – postal je središče nove družinske veje (Kos 2001, 201). Odraz tega je malograjska kovnica, ki jo je okoli leta 1195 osnoval Bertold IV. in je kovala še vsaj do leta 1269 (Kos 1985, 42). Podobno velja tudi za splošen gospodarski razcvet Kamnika od druge polovice 12. in v 13. stoletju (Gestrin 1985, 45–46; Kos 1994, 180).

Sočasno je bilo povišanje nekaterih ministerialov. Še v začetku 13. stoletja je bil položaj posameznih ministerialov odvisen od ustaljene strukture pod trdno roko Henrika IV., ki je izbranim ministerialom zaupal lokalno operativo (Kos 2001, 204–206). Vidnejši socialni prelom je za kranjsko andeško ministerialiteto prinesel čas omenjenega državnega izobčenja Henrika IV. med letoma 1208 in 1218. Dejstvo, da je Henrik nujno potreboval njihovo zvestobo, so očitno izkoristili za trganje ministerialnih spon (Kos 2001, 209–213). Medtem ko je bil vzrok teh sprememb splošen družbeno-politični položaj, je bil nezavidljiv položaj Henrika IV. njihov neposredni povod. Njegova smrt leta 1228 je še pospešila razkroj andeške zemljiške posesti na Kranjskem.

[2] Jaksch 1904, št. 770.

2.4. ANDECHS' ESTATES WITH MINISTERIALS IN *CARNIOLA*

Only once we are familiar with the Andechs dynastic history and have a clear overview of the High Medieval history of *Carniola* can we understand the development of the territorial estates of the Andechs in *Carniola*.

The central rule of the Andechs was focused between Tržiška bistrica, the Sava river, Limberk and Tuhinje valley, with the second centre in Slovenj Gradec. When they arrived from Bavaria they also brought with them some of the ministerial families. Later they took possession of the existing Weimar-Orlamünd's ministerials and their estates (Kos 2001, 188–190). In the 11th and 12th century the latter lived in an area with the oldest feudal colonisation, in larger villages along the roads that lead to the north and east of Kranj (Kos 1960, 57 and 60).

Therefore there is a noticeable difference between the Andechs' ministerials to the west and to the east of the Kamniška bistrica river (*fig. 2.4*). There were more ministerial families to the west of the river and they appeared in sources already in the 12th century. However, the ministerials from the eastern estates who are mentioned only from the 13th century onwards were more likely to possess superior fortified castle buildings. The latter were mainly ministerials that the Andechs placed in the centre of the estate (according to Bavarian tradition). The earliest mentioned Adechs' ministerials were William from Mekinje and Karl from Kamnik[2], both from the administrative centre of the Andechs. Prior to the mid 12th century Meinhard Schabab was the most important ministerial for the Andechs family in *Carniola* (Kos 2001, 191–192).

In the mid 12th century some ministerials to the west of Kamnik emerged as the leaders of lower ministerials and started (with the approval of the counts) to expand their territories. An antagonistic process was a decrease in the numbers of free gentry. The side branch of the Schabab family can be used as an illustration. Meinhard Schabab, the founder of the family, had his domicile castle in the valley of Kokra. He was one of the first mentioned ministerials, but he died soon after 1154. However, his family managed to defend the leading position in the Kamnik and Kranj territories. This was shown by the dispersion of the family: the brothers Meinhalm, Gerlo and Albert had their court in Velesovo, Wecelin at Breg pri Kokri, Magens (also known as Meingoto de Hus) might have had it in Mengeš and Karel in Kamnik. Meinhard's son Albert was in charge of building the Gutenberg castle, the important role of which was to protect the western border of the Andechs estate (Kos 2001, 194–195). As seen from the Andechs' point of view this was a consolidation of power.

[2] Jaksch 1904, No. 770.

Tako so vsaj od drugega desetletja 13. stoletja dalje nekateri ministeriali dobivali proste roke pri pravnih in političnih odločitvah. Posamezne družine so se lahko iztrgale iz vsiljene jim endogamije in sklepale poroke tudi zunaj kroga gorenjskih ministerialov. Na ta način so povečevale premoženje in vzpostavljale temelje novih strategij, karier in družbenih vezi, predvsem s spanheimskimi ministeriali iz bližnjega ljubljanskega ali koroškega okolja (Kos 1994, 180–182; Kos 2001, 221–224).

V 14. in 15. stoletju se je odvijal proces uvrščanja najbogatejših kamniških meščanskih družin med plemstvo. Le nekaterim posameznikom je uspelo poseči po najvišjih deželnih funkcijah. Znan je le primer Ostermana iz rodu plemenitega kamniškega meščana Markvarda, ki je bil med letoma 1397 in 1407 kranjski deželni vicedom. Ta je bil v sorodstvu z večino pomembnejšega gorenjskega plemstva, s čimer se je ločeval od plemenitega meščanstva in se uvrščal med deželno plemstvo (Kos 1994, 180–182).

2.5. MALI GRAD

Zgoraj prikazani razvoj nam pomaga razumeti nastanek visokosrednjeveškega Kamnika. Kot prvo omembo kamniških gradov navadno navajamo letnico 1202 in znamenito omembo *duo castella de Staine*[3]. Vendar sta se Bertold II. Andeški in neki njegov ministerial že dobrega pol stoletja pred tem, med letoma 1143 in 1147, naslovila po upravnem središču svojih posesti na Kranjskem kot *comes Bertoldus de Stein* in *Karol de Stein*[4] (prim. Otorepec 1988, 51).

Da so Andeški, kadar so se mudili na Kranjskem, kot sedež uporabljali ravno kamniški Mali grad, neposredno priča listina iz leta 1250 o vojaškem sporazumu med patriarhom Bertoldom Andeškim in vojvodo Ulrikom III. Spanheimskim, spisana *in capella superiori castri inferioris de Stain*[5]. V prvi četrtini 13. stoletja je bil Mali grad vsaj eden od sedežev, morda celo matični grad Henrika IV. Na Malem gradu je še v 14. stoletju živel rod nekdanjih andeških ministerialov. Leta 1309 so izstavitelji neke listine prosili za pečatenje meščane in oba kamniška glavarja na Zgornjem in Malem gradu. Vitezi Kamniški so le med izvajanjem gradiščanske službe občasno bivali na Zgornjem gradu. Vendar Mali grad ni bil v celoti njihov. Pred letom 1353 sta imela pravico bivanja v njem Nikolaj s Črnelega in zatem Konrad Gall, po letu 1353 Nikolaj s Kolovca, pred letom 1362 pa skupaj s slednjim tudi Nikolaj Sommerecker (Kos 1994, 24). Poslopje Malega gradu se v letu 1444 navaja kot opustelo, *ain öds haws*[6].

[3] Kos 1928, št. 15.

[4] Kos 1915, št. 195.

[5] Kos 1975 I, 24.

[6] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 227, 252 v. (navajam po Otorepec 1985, 20 in op. 35).

At this stage one should draw attention to the fact that the centre of power was moved from Kranj to Kamnik. There is no direct evidence that this took place under the rule of the Andechs. However, all indicators - moving the centre from a town to a castle, from the centre of the 'old' *Carniola* to the old border with Savinjska *Marcha* and the previously described placing of ministerials - point towards a well planned operation. Kamnik was established as a centre during the rule of Berthold III (+1188). The counts of Andechs settled a Bavarian ministerial family into Mali Grad (Kos 2001, 197–198). During the period of Berthold IV and Heinrich IV Kamnik obtained a new position within the politics of the Andechs family – it became the centre of an independent dynastic branch (Kos 2001, 201). This was reflected in the Mali grad mint, which was established by Berthold IV around 1195 and remained forging coins at least until 1269 (Kos 1985, 42). Similar holds true for the general economic growth of Kamnik from the second half of the 12th century and throughout the 13th century (Gestrin 1985, 45–46; Kos 1994, 180).

During this period some of the ministerials gained in status. At the beginning of the 13th century the position of the individual ministerials depended on the established structure under the tough rule of Heinrich IV, who entrusted the local affairs to selected ministerials (Kos 2001, 204–206). A noticeable change in the social position of the Andechs' ministerials in *Carniola* took place during the already mentioned excommunication of Heinrich IV between 1208 and 1218. They used the fact that Heinrich was in dire need of allies and their loyalty in order to break the ministerial bonds (Kos 2001, 209–213). While these changes were rooted in the general social and political changes, the unenviable position of Heinrich IV presented the catalyst for this process. His death in 1228 only speeded up the decline of the Andechs' estates in *Carniola*.

At the latest from the 1220s onwards certain ministerials had free hands in their legal and political decisions. Individual families could break free from the previously enforced endogamy and started marrying also outside the circle of *Carniola* ministerials. Through this they increased their wealth and established a firm base for new strategies, careers and social bonds, especially through family bonds with the Spanheim ministerials from the nearby Ljubljana and Carinthia territories (Kos 1994, 180–182; Kos 2001, 221–224).

In the 14th and 15th century the rich townsfolk from Kamnik slowly made their way into nobility. However, only a few individuals managed to reach the highest county functions. The only known example is that of Osterman from the family of the noble Kamnik townsman Markvard, who became an important Carniolan official (*vicedominus*) for the period between 1397 and 1407. He was related to most of the important Carniolan nobility and this made it possible for him to rise above the noble townsfolk and become a part of the aristocracy (Kos 1994, 180–182).

Vendar sta deleža na gradu še vedno imela tudi Jurij[7] in Gašpar[8] Kamniška. Predmet nadaljnjih listin je verjetno gradu pripadajoča posest. Leta 1474 je bila posest Malega gradu predana deželnemu knezu cesarju Frideriku III.[9] (prim. Otorepec 1985a, 20; Otorepec 1988, 51–56).

Zgornji grad je bil vsaj po letu 1274 in do konca srednjega veka namenjen bivanju gradiščanov v službi mestnega oziroma grajskega gospoda, v čigar zastavi ali fevdu je bil grad (prim. Kos 1994, 24). Tako so leta 1338 Habsburžani ponovno podelili Ortenburžanom v fevd tudi Zgornji grad. Čez tri leta so ga podelili Rajnherju Schenku z Ostrovice, ki ga je kupil od Gregorja s Kamnika. Grad je bil sedež deželnoknežjega gospostva in deželskega sodišča. Vsi imenovani gradiščani, lahko tudi več hkrati, so se izrecno navajali kot gradiščani Zgornjega gradu. Od 1293 do 1319 je bil to Wernher iz Škofje Loke, leta 1312 Nikolaj iz Kamnika, med 1327 in 1368 Gerloh Stuppel iz Kamnika, med letoma 1402 in 1404 Pirs iz Pudoba in leta 1407 Ulrik z Limberka (Kos 1994, 24).

Najstarejša omemba naselbine pod Malim gradom ni listina, datirana med letoma 1188 in 1204, ko naj bi Bertold IV. Žički samostan osvobodil carine *in foro suo Steun*; ta listina je namreč ponaredek iz začetka 13. stoletja. Prva posredna omemba tako izvira iz leta 1229, ko je Oton VII. Andeški potrdil meje in posest hospica sv. Antona ter ob tem omenil tudi kamniške meščane, *civium Steynensium*[10] (Otorepec 1985a, 19).

Nastanek naselja Kamnik kot pomembnega trgovskega in upravnega središča sega vsaj v drugo polovico 12. stoletja. Takrat je bil Kamnik središče andeške posesti na Kranjskem in trgovine na Gorenjskem. Upravo so izvajali ministeriali s sedežem na Malem gradu (Kos 1994, 180; Otorepec 1985a, 19).

Poleg rodbine omenjenega Majnharda Schababa, pozneje imenovane Gallenberg, se je v Kamnik do konca 14. stoletja naselilo več plemiških rodbin s podeželja in sosednjih mest. Vendar so v Kamniku ustanovljene mestne plemiške veje do konca srednjega veka z nekaj izjemami propadle ali izumrle (Kos 1994, 180–182).

Takšna podoba razvoja mesta in gradov Kamnika se ujema s splošno znano shemo, ko gradovi od 13. stoletja dalje izgubljajo upravno-politično vlogo v primerjavi z mesti (Kos 1994, predvsem 169–175).

[7] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 229, 234 v. (navajam po Otorepec 1985, 20 in op. 36).

[8] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 270 (navajam po Otorepec 1985a, 20 in op. 37).

[9] listina 1472 VI 3., reg. J. Chmel, Regesten des römischen Kaisers Friederich III 1452-1493, Wien 1859, str. 638, št. 6571; listina 1474 VII 9., isti str. 670, št. 6900; str. 680, št. 7045 (navajam po Otorepec 1985, 20 in op. 38).

[10] Kos 1915, št. 755.

2.5. MALI GRAD

The development of the High Medieval Kamnik can only be understood in the previously described context. The Kamnik castles were first mentioned in 1202 as *duo castella de Staine*[3]. However, over half a century earlier (between 1143 and 1147) Berthold II of Andechs and one of his ministerials addressed themselves after Kamnik (*Stein*) as *comes Bertholdus de Stein* and *Karol de Stein*[4] (cf. Otorepec 1988, 51).

The 1250 military agreement between the Patriarch Berthold of Andechs and the duke Ulrik III of Spanheim that was signed *in capella superiori castri inferioris de Stain*[5] shows that the Andechs used Mali grad as their headquarters whenever they stayed in *Carniola*. In the first quarter of the 13th century Mali grad was at least one of the headquarters, maybe even the main castle of Heinrich IV. As late as the 14th century a family of former Andechs ministerials lived in Mali grad. In 1309 the issuers of a document asked for the document to be stamped by the townsfolk and both Kamnik chiefs, from Zgornji grad and Mali grad. The Kamnik knights occasionally stayed at Zgornji grad, but only while performing castle duties. However, Mali grad was not entirely in their hands. The following individuals also had the right to live there: prior to 1353 Nikolaj from Črnelo and Konrad Gall, post 1353 Nikolaj from Kolovec, and prior to 1362 Nikolaj Sommerecker (Kos 1994, 24). In 1444 the Mali grad building was mentioned as deserted, *ain öds haws*[6]. However Jurij[7] and Gašpar[8] of Kamnik still held shares of the castle. The subject of those and future documents was most likely the estate belonging to the castle. In 1474 the Mali grad estate was handed over to the provincial prince, Emperor Friderik III[9] (cf. Otorepec 1985a, 20; Otorepec 1988, 51–56).

From 1274 up to the end of the Middle Ages Zgornji grad was used as the living quarters of the castellan (governor of the castle) in service of the town Lord or castle Lord (see Kos 1994, 24). In 1338 the Habsburgs handed over Zgornji grad as a feud to the Ortenburgs once again. Three years later they handed it to Rainhard Schenk from Ostrovica, who purchased it from Gregor

[3] Kos 1928, No. 15.

[4] Kos 1915, No. 195.

[5] Kos 1975 I, 246.

[6] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 227, 252 v. (quoted from Otorepec 1985, 20 and note 35).

[7] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 229, 234 v. (quoted from Otorepec 1985, 20 and note 36).

[8] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 270 (quoted from Otorepec 1985a, 20 and note 37).

[9] Document 1472 VI 3., reg. J. Chmel, Regesten des römischen Kaisers Friederich III 1452-1493, Wien 1859, pg. 638, No. 6571; document 1474 VII 9., the same pg. 670, No. 6900; pg. 680, No. 7045 (quoted from Otorepec 1985, 20 and note. 38).

2.6. RAZPRAVA

Za preučevanje preteklosti kamniškega Malega gradu na podlagi pisnih virov sta ključna dejavnika njegova povezanost z usodo rodbine Andeških in trojni pomen zapisa *Stein* ali *Stain*: namreč Mali grad, Stari grad ali naselbina Kamnik. Pisne vire o Kamniku (Kos 1975, 243–247) lahko vsebinsko razdelimo v več skupin. Vsebujejo lahko:

– samo krajevno ime (*Stein, Steine, Steyn, Stain, Staine, Stayn, Champnich, Camnicho*)

– krajevno ime s pridevnikom zgornji (*Oberstayn, Oberstain, Oberstein, superior castrum Obernstain*)

– krajevno ime s pridevnikoma grad in zgornji (*dez obern hovz ze Stain, oberm hos ze Stain, obern purch ze Stayn, oberm haws ze Stain, obern vest ze Stain, purchgraff zu Ober Stain*)

–krajevno ime s pridevnikoma grad in spodnji (*in capella superiori castri inferioris de Stain, purksess daz gelegen ist ze Stain an der nidern vest, Stain ... vnder dem niderm haws, Burksas an der Nidern Vest zu Stain, an der nidern vessten zu Stain, Stain ... an der Nidern vesten*)

– krajevno ime, predmet utrdba in pridevnik mala (*Stain an der klainn vesten, zu Stain an der klainen vesten, kleine Veste Stain*).

Drugo in tretjo skupino lahko povežemo z Zgornjim gradom. Poimenovanja Stari grad v srednjem veku ne zasledimo. To poimenovanje je torej mlajšega nastanka (prim. Otorepec 1985a, 20) in se je verjetno izoblikovalo na začetku novega veka. Od leta 1274 dalje se listine izstavljajo na Zgornjem gradu. Najpozneje takrat postane Zgornji grad upravni sedež zemljiškega gospostva in to vlogo obdrži do konca srednjega veka.

Četrto skupino povezujemo z Malim oziroma Spodnjim gradom. Za pojasnilo, na kaj se krajevno ime nanaša, so zanimive nekatere omembe iz 14. in 15. stoletja (*purksess daz gelegen ist ze Stain an der nidern vest, Burksas an der Nidern Vest zu Stain, an der nidern vessten zu Stain, Stain ... an der Nidern vesten*). Te zapise lahko interpretiramo kot (pravico do bivanja) v Kamniku, na spodnji utrdbi. Po tovrstnih omembah sodeč se krajevno ime nanaša na naselbino in Mali grad skupaj. Kadar je potrebno, mora biti lokacija določno izražena.

Nadaljevanje sklepa omogočajo navedbe pete skupine, mala utrdba. Ni verjetno, da bi se poimenovanje mala utrdba nanašalo na grad, ki je obsegal celotni areal grajskega griča. Bržčas je tako poimenovana utrdba, kakršno prikazuje tudi Valvazor (*sl. 3.1)*. Ta je nastala na temeljih romanskega bivalnega stolpa na zahodnem robu grajskega griča, ko je bil grad že v ruševinah. Služila je v sklopu obrambe mesta.

Takšen sklep potrjuje dejstvo, da je pridevnik "mali" prvič izpričan šele leta 1444. To je čas, ko je bil grad opustel (Otorepec 1985a, 20), lastnik grajske kapele pa kamniški ključavničarski in kovaški ceh (Sagadin 1997b, 36). Grajska kapela v lasti meščanov potrjuje tezo, da sta

from Kamnik. The castle was the headquarters of the provincial gentry as well as the provincial court. All of the named castellans, sometimes more than one at a single time, titled themselves as the Lords of Zgornji grad. Between 1293 and 1319 this was Wernher from Škofja Loka, in 1312 Nikolaj from Kamnik, between 1327 and 1368 Gerloh Stuppel from Kamnik, between the years 1402 and 1404 Pirs from Pudob and in 1407 Ulrik from Limberk (Kos 1994, 24).

The oldest mention of the settlement at the foot of the Mali grad hill is not the document dated between 1188 and 1204, when Berthold IV supposedly freed the Žiče monastery from duties *in foro suo Steun*, for this document is a forgery from the beginning of the 13th century. The first direct mention therefore dates to 1229, when Otto VII of Andechs confirmed the borders and estate of the hospice of St. Anton and mentioned the Kamnik townsfolk, *civium Steynensium*[10] (Otorepec 1985a, 19).

The origins of Kamnik as an important trade and administrative centre reach into the second half of the 12th century. At the time Kamnik was the centre of the Andechs' estate in the Kranj region as well as the centre of all trade in *Carniola*. The administration was performed by the ministerials at Mali grad (Kos 1994, 180; Otorepec 1985a, 19).

By the end of the 14th century a number of noble families from the country and the neighbouring towns moved to Kamnik. However, the town gentry branches that emerged from Kamnik have, with a few exceptions, perished or died out (Kos 1994, 180–182).

Such development of the town and castles in Kamnik is in accordance to the generally accepted scheme: from the 13th century onwards castles started loosing their administrative and political role which was increasingly becoming the domicile of towns (Kos 1994, especially 169–175).

2.6. DISCUSSION

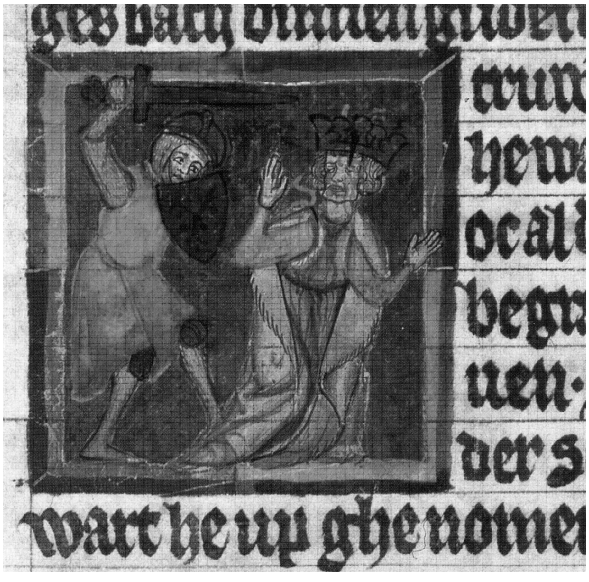
The fate of the Andechs family on one hand and the triple meaning of *Stein* on the other are of vital importance for the understanding of the written records relating to Mali grad in Kamnik. The first has already been dealt with. As regards the second the contents of the written records on Kamnik (Kos 1975, 243–247) can be divided into five groups:

– The geographical name (*Stein, Steine, Steyn, Stain, Staine, Stayn, Champnich, Camnicho*)

- The geographical name accompanied by the adjective upper (*Oberstayn, Oberstain, Oberstein, superior castrum Obernstain*)

- Geographical name accompanied by the adjectives castle and upper (*dez obern hovz ze Stain, oberm hos ze*

[10] Kos 1915, No. 755.



Sl 2.5: Miniatura iz Saške kronike, okoli 1300. *Dvorni grof* (nem. *Pfalzgraf*) *Otto Wittelsbaški umori kralja Filipa Štaufovca* (povzeto po Hucker 1998, Abb. 66).
Fig. 2.5: Saxon chronicles miniature, around 1300 A.D. *Pfalzgraf Otto Wittelsbach murders the king Philip Stauf* (after Hucker 1998, Abb. 66).

se namembnost in pravni položaj objektov na grajskem griču najpozneje leta 1444 spremenila.

Toda že formulacija najstarejše omembe spodnje utrdbe iz leta 1353, *purksess daz gelegen ist ze Stain an der nidern vest*, se nanaša na utrdbo v sklopu mestnih obrambnih naprav. Pravni položaj objektov na malograjskem griču je bil torej že leta 1353 podoben kot leta 1444. Takšna datacija bi bila skladna s prvo (posredno) omembo mestnega obzidja iz leta 1301[11]. Vendar je treba upoštevati, da gre pri izrazu utrdba (*vest, veste*) za pojem, ki je v 14. in 15. stoletju označeval tudi Zgornji grad.

Nerazjasnjena ostane prva skupina krajevnih imen. Pri tej si lahko pomagamo s konteksti, saj gre večinoma za uporabo krajevnega imena kot kraja izvora (npr. *comes Bertoldus de Stein* ali *Nicolao de Camnicho*). Omembe iz 12. stoletja se nanašajo na grajskega gospoda, *comes Bertoldus de Stein*, in njegovega gradiščana, *Karol de Stein*[12]. Ko pa v začetku 13. stoletja, leta 1202, Bertold IV. zastavlja kamniška gradova, je naslovljen kot vojvoda Meranski. Kot Kamniški je naslovljen eden pomembnejših andeških ministerialov tistega časa, gradiščan v Kamniku, *dominus Gerlochus purgravius de Staine*[13]. Čas, ko ambicije Andeških na Kranjskem presežejo lokalne okvire, je torej razviden tudi iz naslavljanja. Hkrati lahko na podlagi Gerlohove soprisege tudi sklepamo, da so posamezni ministeriali postajali vse pomembnejši.

[11] Deželni arhiv v Gradcu; navajam po M. Kos 1975, 247.
[12] Kos 1928, št. 195.
[13] Kos 1928, št. 15.

Stain, obern purch ze Stayn, oberm haws ze Stain, obern vest ze Stain, purchgraff zu Ober Stain)
- Geographical name accompanied by the adjectives castle and lower (*in capella superiori castri inferioris de Stain, purksess daz gelegen ist ze Stain an der nidern vest, Stain ... vnder dem niderm haws, Burksas an der Nidern Vest zu Stain, an der nidern vessten zu Stain, Stain ... an der Nidern vesten*)
- Geographical name, subject fortification and adjective small (*Stain an der klainn vesten, zu Stain an der klainen vesten, kleine Veste Stain*).

The second and third group can be linked to Zgornji grad. The name Stari grad was not used in the medieval period and thus derives from a later date (cf. Otorepec 1985a, 20). Most likely it was formed at the beginning of the post-medieval era. From 1274 onwards all documents were issued at Zgornji grad. At the latest at this time Zgornji grad became the administrative centre; a role that it preserved until the end of the Middle Ages.

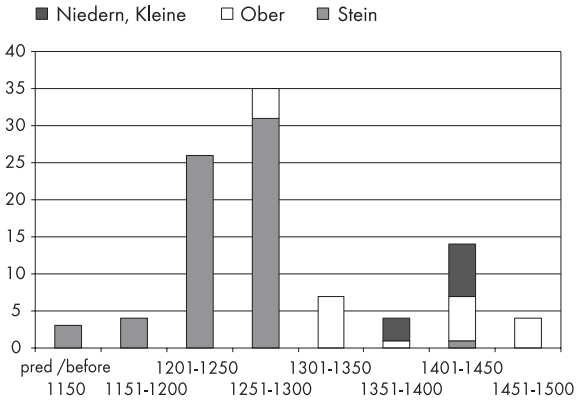
The fourth group is linked to Mali or Spodnji grad. Certain mentions from the 14th and 15th century help us understand what this geographical name is linked to (*purksess daz gelegen ist ze Stain an der nidern vest, Burksas an der Nidern Vest zu Stain, an der nidern vessten zu Stain, Stain ... an der Nidern vesten*). We can interpret these records as the right to live at the lower fortification in Kamnik. Taking these mentions into account it becomes clear that the geographical name is applied to both, the settlement and Mali grad. If necessary the location has to be specifically expressed.

The continuation of this conclusion is enabled by the understanding of the fifth group, i.e. small fortification. It is unlikely that the name small fortification would be applied to the castle that covered the entire castle hill. It is more likely that this name was given to the later town fortification as depicted in Valvazor (*fig. 3.1*). This fortification was erected on the western edge of the castle hill when the castle was already in ruins.

This conclusion is confirmed by the fact that the adjective 'small' was recorded for the first time in 1444. This was the period in which the castle was abandoned (Otorepec 1985a, 20) and the castle chapel was in the ownership of the Kamnik locksmith and forgery guilds (Sagadin 1997b, 36). The fact that the castle chapel was owned by the townsfolk confirms the thesis that the building lost its legal position of the castle by 1444.

However, the formulation of the oldest mention of the lower fortification (1353), *purksess daz gelegen ist ze Stain an der nidern vest*, implies that the fortification was a part of the town defence system. Such dating would be in accordance to the first (albeit indirect) mention of the town walls in 1301[11]. However, one needs to remember that in the 14th and 15th century the expression fortification (*vest, veste*) was also used for Zgornji grad.

[11] Provincial archive in Graz; quoted from M. Kos 1975, 247.



Sl 2.6: Pisni viri glede na formulacijo kamniškega imena (vir: Kos 1975, 243–247).
Fig. 2.6: Written records as regards the formulation of the name Kamnik (source: Kos 1975, 243–247).

Med pričami je bil v isti listini naveden tudi *Wodorlici de Staine*. Ta je verjetno istoveten s pričo iz pet let mlajše kamniške listine[14], kjer je naveden na prvem mestu kot *dominus Wolricus plebanus de Stain*, kamniški župnik. Ker pa je bil farni sedež prenesen iz Nevelj v Kamnik šele leta 1238 (Otorepec 1985a, 19; isti 1985b, 24), sklepamo, da se pridevnik nanaša na izvor. Uporaba krajevnega imena Kamnik kot kraja izvora se v začetku 13. stoletja torej nanaša na naselbino in grad.

Sklepe lahko strnemo takole. Do sredine 13. stoletja sta bila gradova ena posestna enota, krajevno ime *Stain* ali *Stein* opisuje gradova in naselbino. To je najjasneje izraženo ravno v formulaciji iz leta 1202, *duo castella de Staine*. Upravno središče je bil Mali grad. Po smrti oglejskega patriarha Bertolda V. Andeškega leta 1251, najpozneje leta 1274, postane upravno središče zemljiškega gospostva Zgornji grad. Po tem letu je navajanje vedno natančno: Zgornji ali Spodnji grad, mesto, mestni predel (*sl. 2.6*). Gradova sta postala ločeni posestvi. Tretji pravni objekt postane mesto Kamnik, prvič posredno omenjen leta 1228[15]. Tako so v listini iz leta 1309 izrecno omenjeni *die purger ze Stein* ter glavarja Zgornjega in Malega gradu.

Kaj pa Mali grad? Po zadnjem pečatenju glavarja Malega gradu leta 1309 se ponovno omenja šele leta 1353, in to kot mestna utrdba. Ne glede na interpretacijo namembnosti in lastništva objektov na malograjskem griču se ti leta 1444 navajajo kot opusteli[16]. Do konca srednjega veka posest Malega gradu ostane pravni objekt, Zgornji grad pa upravni sedež.

[14] Kos 1928, št. 123.
[15] Kos 1928, št. 507.
[16] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 227, 252 v. (navajam po Otorepec 1985, 20 in op. 35).

The first group of geographical names remains unexplained. However, certain things can be said when they are viewed in the appropriate context. The geographical name is most often used as the name of origin (e.g. *comes Bertholdus de Stein* or *Nicolao de Camnicho*). In the 12th century the head of the Andechs dynasty was titled as *comes Bertholdus de Stein*, and his castellan was known as *Karol de Stein*[12]. In 1202, the senior Andechs - Berthold IV - was titled as the duke of Merania. The castellan in Kamnik, *dominus Gerlochus purgravius de Staine*[13], was titled after the Kamnik castle. The moment the ambitions of the Andechs family in *Carniola* surpassed the local frames can thus be deducted from their titles. At the same time we can use the fact that Gerloh was the co-signatory of the oath to reach the conclusion that individual ministerials were gaining in importance.

Wodorlici de Staine is also amongst the witnesses who signed this document. He is probably the same witness who signed a document in Kamnik five years earlier[14], where he was noted as *dominus Wolricus plebanus de Stain*, the vicar of Kamnik. However, as the parish headquarters were moved from Navlje to Kamnik in 1238 (Otorepec 1985a, 17; same 1985b, 24), we can conclude that the adjective *Stein* was linked to the origins. At the beginning of the 13th century the use of the geographical name Kamnik as the place of origin was therefore linked to both - the settlement and the castle.

We can summarise the conclusions as follows: until the mid 13th century both castles belonged to the same estate, and the geographical name *Stain* or *Stein* described the castles as well as the settlement. This is most clearly visible in the 1202 formulation *duo castella de Staine*. The administrative centre was Mali grad. Following the death of the Aquileia Patriarch Berthold V in 1251 Zgornji grad became the administrative centre of the feud. Post 1274 the various locations were always precisely specified: Zgornji or Spodnji grad, town, part of town (*fig. 2.6*). The castles became parts of different estates. The town of Kamnik became the third legal subject, for the first time indirectly mentioned as such in 1228[15]. A document dating to 1309 explicitly mentions *die purger ze Stein* and the governor of Zgornji and Mali grad.

What about Mali grad? Following the last official stamps of the governor of Mali grad (1309) it was mentioned again in 1353, this time as a part of the town fortification. Regardless of the interpretation of the purpose and ownership of the objects on the Mali grad hill they were mentioned as derelict in 1444[16]. Until the end of the Middle Ages the Mali grad estate remained a legal subject, while Zgornji grad housed the administrative headquarters.

[12] Kos 1928, No. 195.
[13] Kos 1928, No. 15.
[14] Kos 1928, No. 123.
[15] Kos 1928, No. 507.
[16] Haus-, Hof- und Staatsarchiv Wien, Allgemeine Urkunndenreihe 724, fol. 227, 252 v. (quoted from Otorepec 1985, 20 and note 35).

3. SLIKOVNI VIRI

3. HISTORICAL PICTORIAL REPRESENTATIONS

O Kamniku in Malem gradu seveda obstaja velika količina slikovnega gradiva, ki pa izvira iz novega veka. Na tem mestu se bomo osredotočili le na najstarejše nam znane upodobitve, ki lahko pomagajo razumeti srednjeveško preteklost Malega gradu.

Najstarejša upodobitev je Valvazorjeva veduta mesta Kamnik s konca 17. stoletja (*sl. 3.1*). Pogled na mesto iz smeri Zgornjega gradu je nekoliko idealiziran. Ker so Valvazorjeve vedute nastajale tudi z doplačilom meščanov in torej mestu v čast, je olepševanje nekaterih podrobnosti pričakovano.

Tako malograjski grič dosega približno polovico višine, ki mu jo je prisodil umetnik. Sicer se zdi upodobitev grajskega griča dokaj realistična. Vzhodni del je nepozidan, kapelo že obdaja plaščni zid in že ima zvonik, ki pa je še brez baročnih dodatkov. Na zahodnem delu

Of course plenty of pictorial representations of Kamnik and Mali grad can be found, however, all originate from the post-medieval period. At this point we will focus merely on the oldest depictions known to us, for they can help us understand the medieval past of Mali grad.

The oldest depiction is Valvazor's veduta, a veristic depiction of the town of Kamnik dated to the end of the 17th century (*fig. 3.1*). The view of the town as seen from Zgornji grad is somewhat idealised. Because Valvazor's vedutas were created in cooperation with the townsfolk and therefore made to honour the town, it is expected that some details were depicted to appear more attractive than they were in reality.

For instance, the Mali grad hill is in reality approximately only half of the height depicted in the painting. As



Sl .3.1: Kamnik, Janez Vajkard Valvazor, *Topographia ducatus Carnioliae modernae*, 1679.
Fig .3.1: Kamnik, Janez Vajkard Valvazor, *Topographia ducatus Carnioliae modernae*, 1679.

grajskega griča stoji mestna utrdba, zgrajena ob koncu srednjega veka. Prepoznamo en večji stolp in dva manjša stolpiča ter stavbe, ki trdnjavo ob južnem zidu povezujejo z grajsko kapelo.

Natančno 100 let pozneje je nastala votivna slika, shranjena v cerkvi Sv. Florjana v Zakalu. Prikazuje pogled na mesto z nasprotne strani, z gradu Zaprice (*sl. 3.2*). Prostorska sorazmerja so slabša kot na starejši upodobitvi in tudi hiše v ospredju se zdijo bolj idealizirane. Višina malograjskega griča je še bolj pretirana.

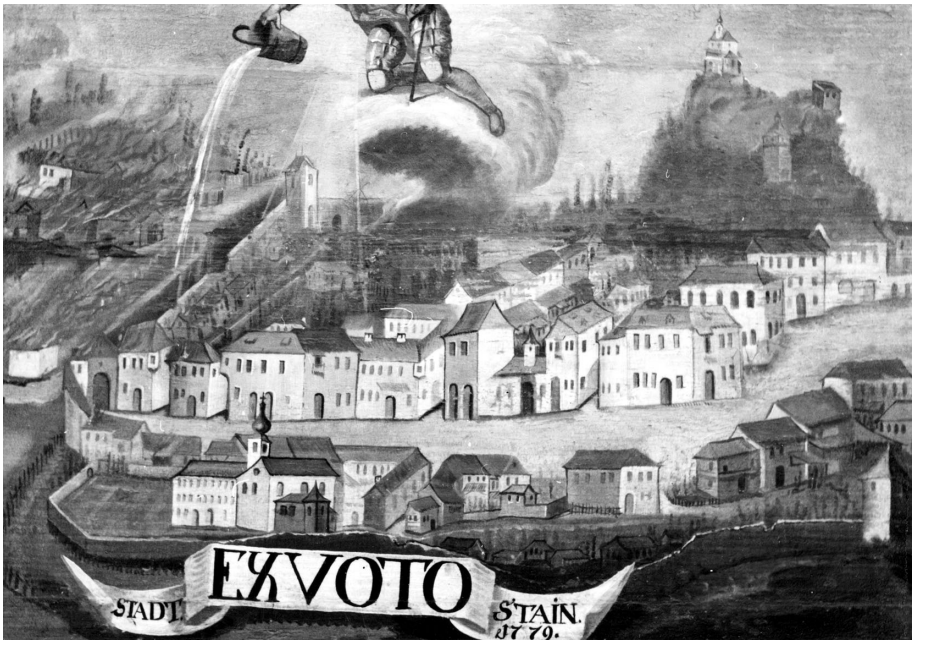
Kljub temu lahko opazimo razvoj oziroma propadanje objektov na malograjskem griču. Kapela je dobila baročni zvonik in s tem obliko, kakršna se je ohranila do modernih restavratorskih del. Zato pa so objekti na zahodnem delu griča v precej slabšem stanju kot v Valvazorjevem času. Ohranjeno je le zidovje glavnega stolpa, o ostalih objektih in obzidju pa ni več sledu. To stanje je skorajda enako tistemu, na katerega so naleteli spomeniškovarstveni delavci v 70. letih 20. stoletja (*sl. 3.3*). Stolp, ki se zaradi prostorskih popačenj zdi postavljen ob vznožju malograjskega griča, je t. i. Trutzturn. Trutzturn oziroma Smoletov gradič je bil kot pendant utrdbi na griču vključen v mestno obzidje. Stolpa sta skupaj nadzorovala vhod v mesto (prim. Sagadin 1997a, 105-109).

Opisano slikovno gradivo torej neposredno priča zgolj o novoveški preteklosti malograjskega griča. Posredno pa nam pomaga interpretirati nekatere plasti arheološkega zapisa, na podlagi česar smo prišli do pomembnih ugotovitev tudi o starejših obdobjih, predvsem o arhitekturnem razvoju gradu (*sl. 4.22*).

regards the rest of the painting the depiction of the hill seems quite realistic. The eastern part has no buildings; the chapel is already surrounded by the wall and has a bell tower, which is without the later Baroque period additions. On the western part of the castle hill the town fortification that was built at the end of the Middle Ages is depicted. One larger tower and two smaller ones as well as the buildings that link the fortification south wall with the castle chapel can also be recognised.

The votive figure found in the church of St. Florian in Zakal is precisely 100 years younger. It depicts the view of the town from the opposite side, from the castle of Zaprice (*fig. 3.2*). The spatial relations are somewhat poorer compared to the older depiction and the houses in the foreground are more idealised. The height of the Mali grad hill is exaggerated to an even greater extent.

Regardless of this we can notice the development as well as decomposition of the objects on the Mali grad hill. The chapel obtained its Baroque bell tower and with it the form it preserved until the modern restoration works. The objects on the western part of the hill are in a much poorer condition than they were during Valvazor's period. Only the walls of the main tower are preserved, and there is no trace of any other objects or walls. This state is almost the same to the one that was encountered by the monument protection workers in the 1970s (*fig. 3.3*). The tower that - due to the spatial distortions in the drawing - seems to be located at the foot of the Mali grad hill is the so-called Trutzturn. Trutzturn or Smole's small castle was a pendant to the fortification on the Mali grad hill and as such a part of the town fortification (see Sagadin 1997a).



Sl. 3.2: Kamnik, votivna slika iz Zakala, 1779 (kopija fotografije, dokumentacija ZVKDS OE Kranj).
Fig. 3.2: Kamnik, votive picture from Zakal, 1779 (copy of photography, documentation ZVKDS OE Kranj).



Sl. 3.3: Mali grad, izkopavanja leta 1981, pogled na izkopno polje; v ozadju stolp poznosrednjeveške mestne utrdbe pred restavriranjem (dokumentacija ZVKDS OE Kranj, fotografija M. Sagadin).
Fig. 3.3: Mali grad, excavations in 1981, view of the excavation area; the tower of the late medieval town fortification prior to restoration works (documentation ZVKDS OE Kranj, photograph by M. Sagadin).

The described pictorial material therefore depicts the Mali grad hill only as it was seen in the post-medieval period. It also helped us to indirectly interpret certain layers of the archaeological records on the basis of which we have reached important conclusions as regards the older periods.

4. ARHEOLOŠKI IZVID

4.1. METODOLOGIJA

4.1.1. METODA PREUČEVANJA ZIDANIH OBJEKTOV

Večino gradenj na Malem gradu predstavljajo kamnite zgradbe gradu v najožjem pomenu besede. Gre predvsem za obzidje, palacij, grajsko kapelo in stolp, 'gradotvorne' stavbne elemente (npr. Krahe 2002a, 7). Za preučevanje stavbnega razvoja so nam na voljo naslednji viri: (**i**) vrsta gradbenega materiala, (**ii**) tehnika gradnje, (**iii**) stavbni elementi, (**iv**) arhitekturni členi in (**v**) stiki med posameznimi elementi.

Vse raziskave, ki smo jih opravili na kraju samem, so ovirale posledice konservatorskih in restavratorskih posegov na gradu. Trenutna predstavitev je le ena izmed možnih interpretacij stavbnih ostalin. Pri tem so potrebni posegi v stavbno tkivo, ki lahko zakrijejo ali celo trajno odstranijo podrobnosti, pomembne za razumevanje stavbnega razvoja.

Vendar so ruševine Malega gradu tudi sicer slabo študijsko gradivo, saj visokosrednjeveški zidovi nikjer niso ohranjeni do višine nadstropja in z eno izjemo niti do višine oken oziroma svetlobnih ali strelnih lin. Izjema je zid malograjske kapele, ki je skrit za poznejšimi prezidavami. Del obzidja iz faze 4b je na mestu, kjer zapira vrzel v skalni osnovi starejšega obrambnega jarka, ohranjen do višine 10 metrov (*sl. 4.23*).

Gradbeni material (**i**) smo preučevali na kraju samem. Makroskopska analiza kaže, da je ves gradbeni material enotnega izvora, lokalni peščenjak.

Preučevanje tehnike gradnje (**ii**) ima v kastelooloških raziskavah dolgo tradicijo. Graditelji gradov so izbrali tehniko gradnje na podlagi gradbenega materiala, ki jim je bil na voljo. To pa je bilo odvisno od različnih dejavnikov, kot so dostopnost določenega materiala v okolici, transportne možnosti in ne nazadnje premožnost grajskega gospoda (Krahe 2002a, 24). Tehnike gradnje kamnitih zidov lahko razdelimo v šest skupin (*sl.4.1*).

Najkakovostnejša in hkrati najdražja je bila tehnika gradnje iz kvadrov. Najkakovostnejša zato, ker je bila najtrdnejša in predvsem najodpornejša proti različnim

4. ARCHAEOLOGICAL FINDINGS

4.1. METHODOLOGY

4.1.1. THE METHOD USED FOR STUDYING STONE STRUCTURES

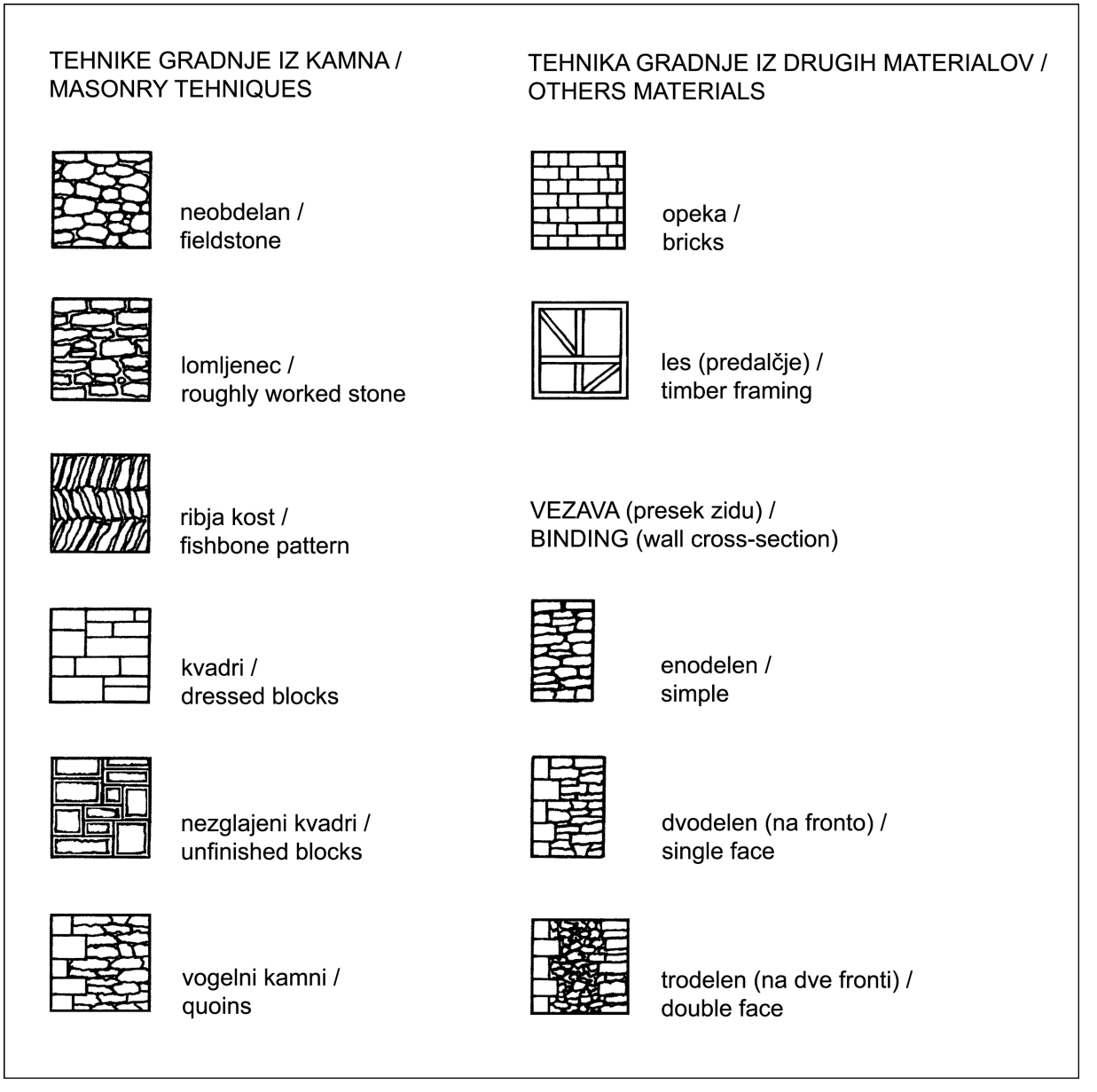
Most buildings on Mali grad are made of stone and represent the castle in the narrowest meaning of the word. This is represented by the wall, the palatium, the castle chapel and tower, all architectural elements that 'make a castle' (e.g. Krahe 2002a, 7). For the study of the construction development we have the following sources at our disposal: (**i**) type of building material, (**ii**) building technique, (**iii**) building elements, (**iv**) architectural elements and (**v**) joints between individual elements.

In situ research was hindered by the previous conservation and restoration works. The current presentation of the castle is merely one of the possible interpretations of the building remains. It also needs to be taken into account that certain details were covered or even permanently destroyed during the restoration works.

The Mali grad ruins present poor study material also in other aspects. The high medieval walls are not preserved to ceiling height at a single place and with a single exception the walls do not even reach the height of the windows or loopholes. The exception is the wall of the Mali grad chapel, which is hidden behind the later builds. A part of the wall from phase 4b is preserved to the height of 10 metres where it closes the gap in the bedrock left by the older defence ditch (*fig. 4.23*).

The macroscopic analysis of the building stone (**i**) *in situ* shows that all building material is most likely local sandstone from the same origin.

The study of building techniques (**ii**) has a long tradition in castle research. The castle builders selected a building technique depending on the building material at their disposal. This depended on various factors, such as the availability of a certain material in the vicinity, transport possibilities and last but not least also the wealth of the lord of the castle (Krahe 2002a, 24). The Medieval stone wall building techniques can be divided into six groups (*fig. 4.1*).



Sl. 4.1: Srednjeveške tehnike gradnje iz kamna in drugih materialov ter načini vezave (prirejeno po Krahe 2002a, Abb. 16).
Fig. 4.1: Medieval techniques of building from stone and other materials and different types of binding (adopted from Krahe 2002a, Abb. 16).

oblegovalnim napravam. Najdražja, ker je bilo treba vložiti veliko dela v obdelavo gradbenega materiala. Ta tehnika je značilna za gradove najvišjega plemstva (prim. Krahe 2002a, 24). Zato ne čudi, da so gradove v vsem srednjem veku praviloma upodabljali, kot da bi bili grajeni iz pravilno klesanih kvadrov (*sl. 4.2*). Izjema, ki dobesedno potrjuje pravilo, je plastovita zidava s črtnim fugiranjem. Gre namreč za tehniko gradnje iz lomljencev, ki posnema videz gradnje iz kvadrov (*sl. 4.15*). Takšno posnemanje ne prinaša nikakršne prednosti v kakovosti izdelave. Edini namen je bil posnemanje prestižnejše gradnje.

Tehnika gradnje v obliki ribje kosti, imenovana tudi *opus spicatum*, je značilna za gradove 11. in 12. stoletja. Tehnika gradnje iz t. i. grbastih kvadrov, ka-

The highest quality (and most expensive) was the technique of building from dressed blocks. This was considered to be of the highest quality because it was the strongest and the most resistant against various siege weapons. It was the most expensive because a lot of work had to be put into the working of the building material. This technique was most common in the castles of the highest nobility (see Krahe 2002a, 24). Thus it is not surprising that the castles throughout the Middle Ages were depicted as if they were constructed from dressed blocks (*fig. 4.2*). The only exception to the rule as regards the depictions is the depiction of the construction made of roughly worked stone with the line fugue (*fig. 4.15*). This is a building technique that uses roughly worked

terih zunanja stran ni bila zglajena, je značilna za 12. in 13. stoletje. Tehniko gradnje z vogalnimi kvadri so uporabljali od 12. stoletja dalje, da bi povečali trdnost zgradb, grajenih iz lomljencev ali neobdelanih kamnov (*sl. 4.31*). Da pa je imela ta tehnika tudi okrasni namen, dokazuje poznosrednjeveška navada, da so vogalne kvadre pogosto naslikali na omet (*sl. 4.20*). Gradnja iz opek je pri gradovih zelo redka, uporabljali so jo na primer pri nekaterih nemških ravninskih gradovih od 13. stoletja dalje. Gradnja s predalčjem je bila na gradovih pogosto uporabljena za predelne stene in manj pomembne zgradbe. Prostor med lesenim ogrodjem je bil najpogosteje zapolnjen s prepletom šibja in zamazan z ilovico (Krahe 2002a, 24–25).

Vrsta uporabljene vezave kamnov v zidu je bila večinoma odvisna od debeline zidu. Enodelni zidovi so bili debeli približno 1 meter, le najdebelejši pa so bili trodelni. Obzidja gradov na območju visokosrednjeveškega Svetega cesarstva so bila večinoma debela od enega do dveh metrov. Le 15 odstotkov gradov izmed 4.000, ki jih je v svoji študiji obravnaval Krahe (2002a, 25), je imelo obzidje debelo manj kot 1 meter in le 8 odstotkov debelejše od dveh metrov. Praviloma so pri gradnji gradov kot vezivo uporabljali apneno malto (*sl. 4.2*).

Stavbni elementi (**iii**) in ohranjeni arhitekturni členi (**iv**) Malega gradu so bili že večkrat predstavljeni (Pipper 1912, 155; Krahe 1994, 580; Sagadin 1997a; Stopar 2006,



Sl. 4.2: Cerkev Saint-Etienne, Mulhouse, Alzacija. Upodobitev na kornem oknu iz barvnega stekla, okoli 1340 (po Binding 2004, številka 331). Gradnja s kvadri, vezanimi z malto.
Fig. 4.2: The church of Saint-Etienne, Mulhouse, Alsace. Depiction on the tinted choir window, approximately 1340 (according to Binding 2004, number 331). Building with blocks, joined with mortar.

stone to imitate the appearance of building with blocks, which does not bring any advantages in the construction quality. Its sole intention is to mimic the more prestigious constructions.

The fishbone building technique - also known as *opus spicatum* - is typical for castles from the 11th and 12th century. Building with so-called unfinished blocks, the exteriors of which were never smoothened, is typical for the 12th and 13th century. The building technique using quoins was used from the 12th century onwards. The intention of this technique was to strengthen the buildings built from roughly worked stones or unfinished blocks (*fig. 4.31*). However, this technique also had a decorative purpose that can be clearly seen in the late medieval custom in which quoins were often painted onto the plaster (*fig. 4.20*). Brick construction was very rare in castles; it was used in some German castles on the plains from the 13th century onwards. Timber frame construction was often used in castles for divisionary walls and buildings of lesser importance. The space between the wooden frames was most commonly filled with a combination of birch and clay (Krahe 2002a, 24–25).

The type of stone binding within the wall mainly depended on the thickness of the wall. Single-face walls were approximately 1 meter thick and only the thickest walls had a double face. High Medieval castle fortification walls were between 1 and 2 metres thick. Out of the 4000 castles that Krahe (2002, 25) studied only 15 percent had fortification walls that were less than 1 metre thick and a mere 8 percent had walls thicker than 2 metres. In most cases limestone mortar was used as the binding material in castle construction (*fig. 4.2*).

The construction elements (**iii**) and the preserved architectural elements (**iv**) of Mali grad were presented on numerous occasions (Pipper 1912, 155; Krahe 1994, 580; Sagadin 1997a; Stopar 2006, 47–52), which is why the conclusions from the older researches will be merely summarised.

The relative chronology of the castle building elements - the so-called construction development - can be made on the basis of the study of the joints between the walls (**v**). Walls that were not built at the same time were usually not joined with a seam. The younger wall leans upon the older one. If the relation younger – older is unclear one can study the building technique or look for the presence of whitewash. The method is therefore very similar to documenting stratigraphic relations. The relations can be shown in the Harris diagram as is the practice in modern research (Westman 2000; Jones 2000). Best results are obtained when these relations are included into the Harris diagram of archaeological stratigraphic units.

In the continuation the wall remains of each stratigraphic phase will be presented. The above described methodology was taken into account when the walls were described and interpreted. However, in order to

47–52). Zato bomo v nadaljevanju le povzeli ugotovitve starejših raziskovalcev.

Relativno kronologijo grajskih stavbnih elementov, t. i. stavbni razvoj, je mogoče izdelati na podlagi preučevanja stikov med zidovi (**v**). Zidovi, ki niso grajeni hkrati, razen izjemoma niso medsebojno vezani. Mlajši zid se naslanja na starejšega. Če odnos mlajši - starejši ni jasen, si lahko pomagamo z opazovanjem tehnike gradnje, prisotnosti ometov ipd. Metoda se torej le v nekaterih podrobnostih razlikuje od dokumentiranja stratigrafskih odnosov. Odnose lahko prikažemo s Harrisovim diagramom, kar je tudi praksa modernih raziskav (Westman 2000; Jones 2000). Najboljše rezultate dobimo, ko te odnose vključimo v Harrisov diagram arheoloških stratigrafskih enot.

V nadaljevanju bomo predstavili zidane ostanke po stratigrafskih fazah. Zgoraj opisano metodologijo smo upoštevali pri opisovanju in interpretiranju. Zidove torej obravnavamo kot stratigrafske enote, vendar smo zaradi primerljivosti s starejšimi interpretacijami ohranili poimenovanje zid.

4.1.2. METODOLOGIJA IZKOPAVANJ

Dolgotrajna izkopavanja na Malem gradu so bila tudi metodološko raznolika. Posegov pred letom 1986 pravzaprav ne moremo obravnavati kot arheoloških izkopavanj, kar tudi uradno niso bila. Kot smo omenili, arheološke dokumentacije pred letom 1986 ni. Obstaja le fotografski arhiv, ki pa beleži predvsem arhitekturne elemente.

Sistematičnega opisa metode dela sicer nimamo, vendar je razmeroma dobro razvidna iz terenskih dnevnikov in številnih objav. Glede na metodo lahko arheološka dela na Malem gradu razdelimo na tri obdobja.

Do vključno leta 1983 so potekala dela na zahodnem delu gradu (*sl. 1.4*). Kot rečeno, so bile v tem obdobju spomeniškovarstvene aktivnosti omejene na umetnostnozgodovinske metode dela, kar je povsem v skladu s tedanjo prakso in zakonodajo.

Dela na Malem gradu v letih 1986, 1988 in 1989 lahko imenujemo ročni izkop z arheološkim nadzorom.

Izkopavanja od leta 1990 dalje pa so bila strokovno arheološka, s stalno prisotnostjo arheologa. V teh letih je bila izkopana večina grajskega jedra. Poleg iskanja arheoloških sledi visokosrednjeveške poselitve je bilo v tem obdobju veliko časa in truda namenjeno predvsem izkopavanju zgodnjesrednjeveškega grobišča in odkrivanju prazgodovinskih plasti.

Metodologija strokovnih izkopavanj je bila reženjska. Arheološki zapis je bil odstranjen in dokumentiran znotraj posameznih kvadrantov v treh do petih vodoravnih režnjih. Najdbe so bile torej dokumentirane znotraj režnjev in kvadrantov. Kjer so izkopavalci naleteli na izrazito drugačne plasti ali strukture, kot so "estrih",

be able to draw comparisons with older interpretations, the walls were numbered separately from the excavated stratigraphic units.

4.1.2. EXCAVATION METHODOLOGY

Long-term excavations on Mali grad were diverse also as regards the used methodology. The interventions prior to 1986 cannot be treated as archaeological excavations as they were not officially recorded as such and there is no archaeological documentation. There is merely a photographic archive that mainly recorded architectural elements (see chapter 5.3).

Although there is no systematic description of the work method it can be deciphered from the fieldwork journals and the numerous publications. Taking the method into account the archaeological works on Mali grad can be divided into three individual periods.

Up to and including 1983 the work took place on the western part of the castle (*fig. 1.5*). As previously stated, the monument protection activities during this period were limited to the same working methods as were used by art historians, which was in accordance with the practice and legislation at the time.

In 1986, 1988 and 1989 the work on Mali grad can be seen as manual excavation with archaeological supervision.

Excavations from 1990 onwards were methodically archaeological and had an archaeologist present at all times. In this period most of the inner castle bailey was excavated. Most of the time and effort was dedicated to the excavation of the Early Medieval graves and revealing the prehistoric layers. The excavation of the archaeological records belonging to the occupation of the High Medieval castle itself was considered to be of lesser importance.

The planum methodology was used in these methodological excavations. The archaeological record was removed and documented in three to five horizontal planums within each individual quadrant. The finds were documented within planums and quadrants. When excavators encountered explicitly different layers and structures such as 'clay' or 'black soil in pit' they adjusted the planums to fit them. For instance, in 1992, they separated the finds from the fourth planum by taking into account whether they were discovered above the paving or below it. However, the quadrant network was used only in 1990, 1991 and 1992. Since the excavations in the remaining years were restricted by individual walls, the structures and finds can be placed into space with relative exactness, even though the quadrant system was not used.

Observations carefully noted in an experienced excavator's fieldwork diary were of great importance for the later analysis. With the use of the planum excavation method the excavators managed to provide some clear descriptions for certain individual stratigraphic contexts.

”ilovica“, ”črna prst v luknji“, so jim prilagodili planume. Tako so na primer leta 1992 najdbe iz četrtega režnja ločili glede na to, ali so ležale nad tlakom ali pod njim. Toda mrežo kvadrantov so za dokumentiranje uporabljali le v letih 1990, 1991 in 1992. Ker pa so bili izkopi v drugih letih zamejeni s posameznimi zidovi, je objekte in najdbe mogoče dovolj natančno umestiti v prostor.

Predvsem so za analizo pomembna opažanja izkušenega izkopavalca, ki jih je skrbno beležil v terenske dnevnike. Ob reženjski metodi izkopavanja so izkopavalci opisali posamezne jasne stratigrafske kontekste.

4.1.3. METODOLOGIJA VREDNOTENJA DOKUMENTACIJE ARHEOLOŠKIH IZKOPAVANJ

Zaradi opisane metodologije arheološkega dela malograjskega gradiva ni bilo mogoče vrednotiti z metodo, kakršno uporabljamo pri t. i. stratigrafskih izkopavanjih. Kljub temu smo iz obstoječe dokumentacije želeli dobiti čim več podatkov, tudi stratigrafskih.

Za vrednotenje gradiva z izkopavanj leta 1992, ki je najbolje dokumentirano, smo razvili metodo retrogradne analize stratigrafskih odnosov. Ta metoda, ki je že bila natančneje predstavljena (Štular 2005a, 438–440), temelji na treh korakih. Najprej so bile obravnavane najdbe razvrščene v najmanjše dokumentirane skupke, ki jih v nadaljevanju imenujemo zbiralne enote. Najpogosteje gre za določen reženj v določenem kvadrantu ali določen stratigrafski kontekst, na primer *v jami*. Zbiralnih enot nismo enačili s stratigrafskimi enotami, razen kadar smo v poizkopavalni analizi ugotovili, da izvirajo iz zanesljivih kontekstov.

Neodvisno od najdb smo na podlagi najdiščnih podatkov na identifikacijskih listkih, opisov v terenskem dnevniku in objavljenih podatkov (Sagadin 1997a; Sagadin 2001) sestavili matriko znanih stratigrafskih enot.

V zadnjem koraku smo podatke združili in sestavili Harrisov diagram zbiralnih enot (Štular 2005a, Tab. 2). Kot vezni člen med uporabljenimi kategorijami podatkov so nam služili datumi.

Iz diagrama je razvidno, da so stratigrafski podatki pomanjkljivi. Pri sestavljanju diagrama in predvsem pri uporabi rezultatov smo se zavedali, da na podlagi reženjskih izkopavanj ni mogoče sestaviti pravega Harrisovega diagrama. Gre za nekak približek, katerega omejitve smo upoštevali. Največji problem predstavlja geomorfologija. Ravno dvorišče grajskega jedra, kjer so izkopavalci najskrbneje upoštevali metodo vodoravnih režnjev, je bilo v vseh obdobjih uporabe konkavno. Tako so izkopavalci tudi znotraj enega režnja v enem kvadrantu hkrati izkopavali stratigrafske enote, ki so nastajale več stoletij.

Zaradi omejenega uspeha opisane metode na eni strani in manj kakovostnih podatkov iz ostalih izkopavalnih sezon na drugi smo se v nadaljevanju oprli le na

4.1.3. METHODOLOGY OF EVALUATING THE DOCUMENTATION FROM ARCHAEOLOGICAL EXCAVATIONS

Due to the described methodologies of archaeological work the Mali grad materials could not be evaluated with the standard method usually used at stratigraphic excavations. Yet, the goal that remained was to obtain as much data from the existing documentation as possible, including stratigraphic.

For the evaluation of the materials from the 1992 excavations (the year with the best documentation) we used a specially developed method of retrograde analysis of stratigraphic relations. This method - which has already been described in greater detail (Štular 2005a, 438–440) - is based on three steps. At first the finds were divided into the smallest possible documented groups that we will call collective units. Most commonly this is a certain planum within a particular quadrant or a certain stratigraphic context, for instance *in a pit*. The collective units were not matched with the stratigraphic ones, except when the post-excavation analysis ascertained that they originate from reliable contexts.

Using the excavation data, identification notes, descriptions in the field log and the published data (Sagadin 1997a; ibid. 2001) a matrix of known stratigraphic units was created.

In the last step the data was merged and a Harris‘ matrix of collective units was created (*fig. 4.3*). The dates served as a link between the used data categories.

From the matrix it is clear that the stratigraphic data is incomplete. As the matrix was created we were aware that it was impossible to create a true Harris matrix from the planum excavations data. This is merely an estimation, the limitations of which had to be taken into account. The greatest problem is represented by geomorphology. The inner castle bailey in which the excavators were especially cautious to use the horizontal layers method was concave during all periods. Thus a single planum within a quadrant included stratigraphic units from several centuries.

The remaining documentation was analysed with the use of a different method. Due to the partial success of the described method and the poorer data quality we relied upon the stratigraphic units that could be precisely defined.

Collective units were preserved as an analytical aid, for they were primarily used to structure the digital database. The sources for the database were found in field logs, notes for marking finds and to a lesser degree in the photographic and scarce drawing documentation.

Following this the analysis of this database was used to create a Harris‘ matrix of known stratigraphic units. However, these could not be equalled to collective units as an individual stratigraphic unit is often comprised of numerous collective units. This is why stratigraphic units

stratigrafske enote, ki jih je bilo mogoče dovolj natančno opredeliti.

Zbiralne enote smo ohranili kot analitični pripomoček, na osnovi katerega smo strukturirali digitalno podatkovno zbirko. Viri podatkovne zbirke so terenski dnevniki, listki za označevanje najdb ter v manjši meri fotografska in risarska dokumentacija.

Nato smo z analizo te podatkovne zbirke izdelali Harrisov diagram stratigrafskih enot. Vendar teh ni bilo mogoče enačiti z zbiralnimi enotami, saj posamezno stratigrafsko enoto pogosto sestavlja več zbiralnih enot. Zato smo v poizkopavalni analizi stratigrafske enote oštevilčili glede na izkopavalno sezono, znotraj te pa glede na stratigrafski položaj. Tako je na primer *trda, rjava, nekoliko peščena* plast, dokumentirana leta 1990, dobila številko 1990/14. Za to plast vemo, da je ležala nad estrihom (*SE 1986/10* ...) in pod žganino s tramovi ter da iz nje izvirajo najdbe štirinajstih različnih zbiralnih enot. Podatki morda ne zadostijo modernim standardom pisne terenske dokumentacije (npr. Roskams 2001, 110–212), vendar po našem mnenju zadoščajo, da takšno plast obravnavamo stratigrafsko.

Nekatere stratigrafske enote smo dodali v poizkopavalni analizi. Predvsem gre za negative (vkopi, interfacije), ki jih izkopavalci niso dokumentirali.

Kot stratigrafske enote smo opisali tudi zidove grajskega jedra. Tiste, ki so bili v času analize vidni, smo opisali na kraju samem. Druge zidove, predvsem pa nekatere stike, ki so pomembni za določanje stratigrafskih odnosov, smo določili na podlagi obstoječe dokumentacije.

Tako nam je uspelo določiti 92 stratigrafskih enot, ki pa niso enakomerno razporejene po najdišču. Metoda je bila uspešnejša znotraj stavb, k čemur je največ prispevala stratifikacija sama. Ta je bila znotraj stavb razmeroma enostavna, na dvorišču pa zelo kompleksna.

Rezultat je Harrisov diagram stratigrafskih enot, ki smo jih lahko določili na podlagi obstoječe dokumentacije (*sl. 4.3*).

Kovinske najdbe je bilo glede na opise večinoma mogoče umestiti v prostor s približno metrsko natančnostjo. Stratigrafsko neopredeljeno gradivo smo analizirali le količinsko.

4.1.4. STRATIGRAFIJA

Upoštevaje stratifikacijo je bilo moč na najdišču določiti pet faz: geološka osnova, prazgodovina, zgodnji srednji vek, visoki in pozni srednji vek ter novi vek. Treba je opozoriti, da ti opisi stratigrafije veljajo le za arheološko dokumentirano območje grajskega jedra oziroma severnega dela malograjskega griča.

V *prvo fazo* smo umestili plasti naravnega nastanka, skalno osnovo in plasti sterilne ilovice (*SE 1990/01, 1990/02, 1991/01, 1991/02, 1992/01, 1992/02*).

were numbered anew and corresponding collective units were ascribed to them. For instance the *hard, brown, somewhat sandy soil* layer, documented in 1990, obtained the number 1990/14. For this layer it is known that it lied above the paved level (*SU 1986/10*...) and below the thick burnt layer; it is also known that finds from fourteen different collective units originate from this stratigraphic unit. This data might not measure up to the modern standards of field documentation (e.g. Roskams 2001, 110–212); however it is our opinion that it is sufficient so that we can treat such a layer as a stratigraphic unit.

Some stratigraphic units were added in the post-excavation analysis. These were mainly cuts that were not documented during excavation.

The standing walls were described in the same manner as the stratigraphic units. The ones that were visible at the time of the analysis were described *in situ*. The remaining ones, especially specific joints that were important for defining the stratigraphic relations, were defined on the basis of the existing documentation (see chapter 5.3).

92 stratigraphic units were defined with the use of this method. However, they are unequally dispersed across the site. The used method was more successful when applied to interiors, as it was aided by the well preserved stratification. The task proved to be an extremely complex one to perform in the bailey and it offered poor results.

The resulting Harris' matrix therefore encompasses the stratigraphic units that could be defined on the basis of the existing documentation (*fig. 4.3*).

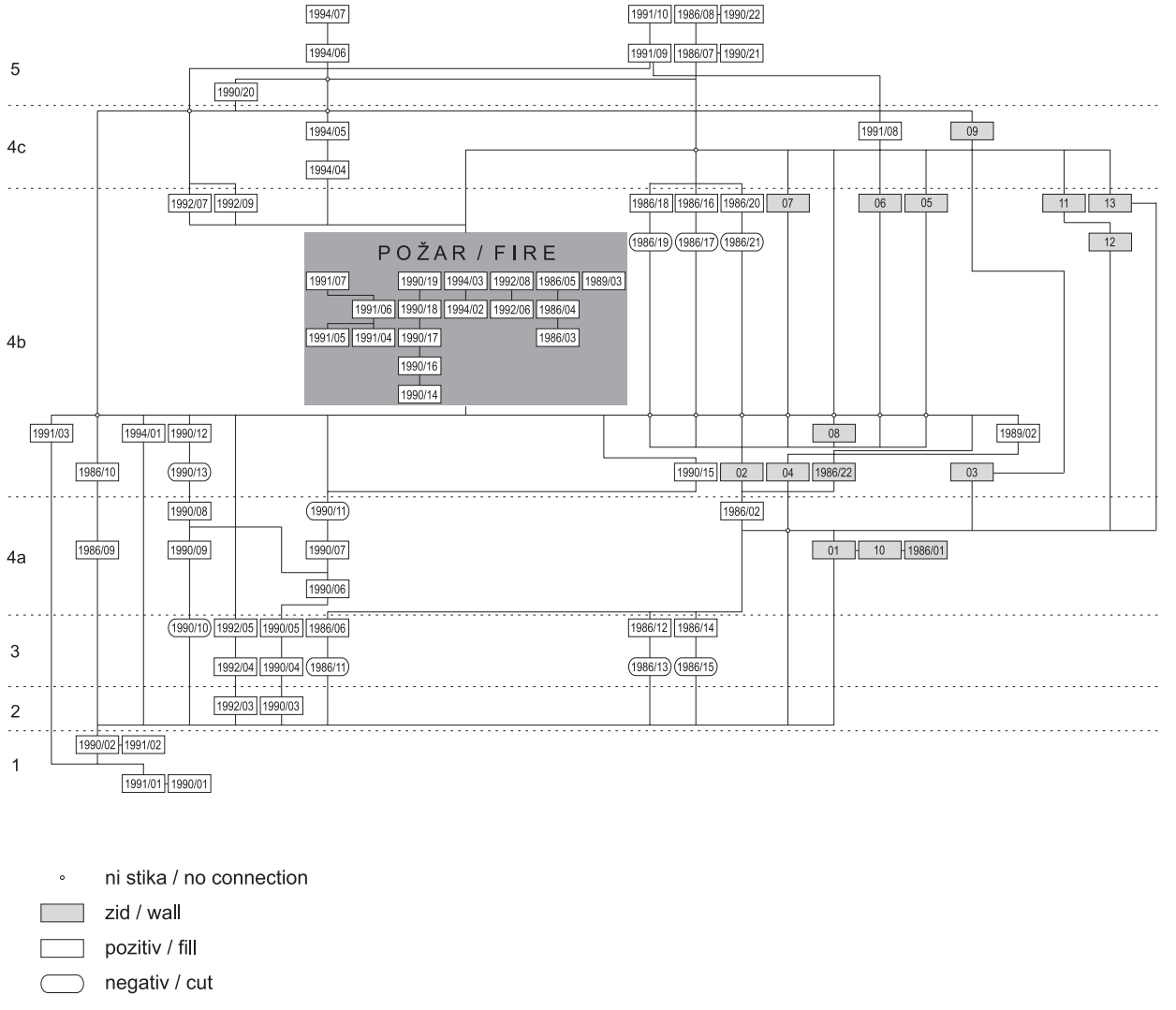
In most cases the metal finds could be placed into space with an approximately one meter accuracy. The unstratified finds were analysed only quantitatively.

4.1.4. STRATIGRAPHY

Through stratification it was possible to define five different phases: the geological base, prehistoric, Early Medieval, High and Late Medieval and Post-medieval. All phases were recognised only for the archeologically documented area of the castle core located on the north of the Mali grad hill.

The first phase includes layers of natural origin, the bedrock and the layers of natural yellowish clay (*SU 1990/01, 1990/02, 1991/01, 1991/02, 1992/01, 1992/02*).

A single stratigraphic unit (*SU 1990/03 = 1992/03*) can be placed into the *second*, prehistoric *phase*. According to the description of the layer – brown clay – and the dispersion of the prehistoric finds (*fig. 8.1*) we can conclude that this is a layer of colluvial origin. The pottery that has been – through analogies – dated to the transition between the Stone Age and the Metal Ages, i.e. the Eneolithic Period (Sagadin 1996, 114), was thus documented in its secondary position.



Sl.4.3: Harrisov diagram stratigrafskih enot, t. i. stratigrafska matrika. Diagram je faziran in ima obliko t. i. objektnega diagrama (diagram je izdelan s programom Stratify 1.3).
Fig. 4.3: Harris' matrix of stratigraphic units. The matrix is phased and has the form of a so-called structure diagram (the matrix was created using Stratify 1.3 software).

Le eno stratigrafsko enoto (*SE 1990/03 = 1992/03*) je moč umestiti v *drugo*, prazgodovinsko *fazo*. Po opisu plasti – ilovica – in razprostranjenosti prazgodovinskih najdb (*sl. 8.1*) sklepamo, da gre za plasti koluvialnega nastanka. Lončenina, ki je s pomočjo primerjav časovno opredeljena na prehod med kameno dobo in kovinskimi obdobji, t. i. eneolitik (Sagadin 1996, 114), je bila torej dokumentirana v drugotni legi.

Tretja faza opredeljuje zgodnjesrednjeveško grobišče in druge zgodnjesrednjeveške objekte. Grobovi (*SE 1990/10*) so bili vkopani skozi plasti ilovic druge in prve faze do skalne osnove. Ker podatki ne omogočajo sestaviti diagrama stratigrafskih enot za vsak grob posebej, hkrati pa je stratigrafska umestitev vseh grobov v to fazo jasna, vse grobove označujemo z eno številko stratigrafske enote in jih obravnavamo kot stratigrafski objekt (za izraz glej Herzog 2004, 10–12).

The third phase denotes the Early Medieval burial site and other Early Medieval structures. The graves (*SU 1990/10*) were dug through the first and second phase clay layers to the bedrock. Because the data does not enable us to produce a diagram of the stratigraphic units for each individual grave, and as the stratigraphic placement of all graves into this phase is clear, all graves are treated as a single stratigraphic unit , i.e. as a stratigraphic group (for the expression see Herzog 2004b, 10–12).

Most of the excavated layers belong to the fourth, High and Late Medieval phase. Using the known stratification this phase can be divided into a number of sub-phases.

Sub-phase 4a was determined on the basis of the courtyard layers (*SU 1992/08*) discovered under the paved walking surface (*SU 1986/10...*). This phase encompasses a period defined by the architectural phase of the first

Velika večina izkopanih plasti sodi v *četrto*, visoko- in poznosrednjeveško *fazo*. To na podlagi opisane stratifikacije lahko razdelimo v več podfaz.

Podfazo 4a smo določili na podlagi dvoriščnih plasti (*SE 1992/08*) pod estrihom (*SE 1986/10* ...). Ta faza obsega obdobje, ki ga opredeljuje arhitekturna faza prvega palacija (glej poglavje 4.2.1). Vendar je to obdobje v arheološkem zapisu ohranjeno le na dvorišču in v severozahodnem vogalu najdišča (*SE 1986/01, 1986/09, 1990/06–09, 1990/11*). Zadnje dejanje v tej podfazi je bila priprava terena za gradbena dela naslednje podfaze (SE *1986/02*), torej izravnava za estrih (*SE 1986/10* ...).

Hodno površino smo označili kot *podfazo 4b*. Gre za estrih (*SE 1986/10, 1989/01, 1990/15, 1991/03, 1992/10, 1994/01*) in največ nekaj centimetrov debelo, na nekaterih mestih ožgano, sivorjavo peščeno plast (*SE 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*). Slednjo obravnavamo kot plast, nastalo v času uporabe hodne površine. Tej podfazi smo pripisali tudi žganinske plasti (*SE 1986/05, 1991/07, 1992/08*), ki so nastale v času za grad uničujočega požara. Plast na podlagi depozicijskih kriterijev sodi v naslednjo podfazo, saj je nastala po uporabi hodnih površin. Kljub temu smo jo umestili v to podfazo, saj iz teh plasti sodi v čas življenja na gradu. Predvsem omenjenima peščeni in žganinski plasti smo lahko sledili v vseh delih najdišča.

V *podfazo 4c* smo umestili ruševinske plasti (*SE 1991/08, 1994/04*). Slednje so verjetno nastajale v dolgotrajnih procesih rušenja gradu in izrabe gradbenega materiala. Tako so med gradivom te stopnje zastopane najdbe mlajše od dogodka, v katerem je bil grad uničen. Ker so bile vse plasti te podfaze odstranjene enotno, torej nestratigrafsko, jih obravnavamo kot celoto.

V *peto fazo* smo umestili novoveške plasti, ki so nastale na ruševinah ali po odstranitvi ruševin faze 4c. V to fazo časovno sodi tudi zgodnjenovoveška mestna utrdba na jugozahodnem delu malograjskega griča. Vendar o dejavnostih iz časa le-te v dokumentiranem arheološkem zapisu ni sledi. Grajska kapela in njena neposredna okolica sta ostali v uporabi do današnjega dne (*SE 1994/06*). Na območju grajskega jedra pa v to fazo sodijo poznonovoveške plasti zelenjavnih vrtov (*SE 1986/07, 1990/20–21, 1991/09, 1994/07*) in ostanki modernih gradbenih del (*SE 1986/08, 1990/22, 1991/10*).

Tako opredeljenim stratigrafskim enotam smo pripisali skupno 1.991 odlomkov lončenine in 28 kovinskih najdb, kar je 16 odstotkov lončenine in slaba polovica kovinskih najdb, največ iz faz 4b in 4c. Preostalih najdb na podlagi obstoječih podatkov ni bilo mogoče stratigrafsko opredeliti.

Diagram stratigrafskih enot je ključnega pomena za razlago relativne kronologije. Pri tem velja posebej omeniti stratigrafske povezave med arheološkimi plastmi in stoječimi strukturami, zidovi. Slednje kljub nesporni uveljavitvi uporabe Harrisovega diagrama v arheologiji v modernih kastelooloških raziskavah pogosto umanjka-

palatium (see below, chapter 5.3). However, this period is poorly represented in the archaeological records, and can only be found in the courtyard and the northwest corner of the site (*SU 1986/01, 1986/09, 1990/06–09, 1990/11*). The last action in this sub-phase was the preparation of the terrain for the construction work of the next sub-phase (*SU 1986/02*), i.e. levelling the ground for the paved walking surface (*SU 1986/10...*).

The walking surface was marked as *sub-phase 4b*. This is the layer paved with the mortar (*SU 1986/10, 1989/01, 1990/15, 1991/03, 1992/10, 1994/01*) which is a few centimetres thick at the most; in some spots it is burnt or is covered by a grey-brownish sand layer (*SU 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*). The latter is interpreted as a layer that was created as the walking surface was used. This sub-phase also includes the thick burnt layers (*SU 1986/05, 1991/07, 1992/08*) that were created at the time the castle was destroyed by the fire. Based on the deposition criteria this layer should be attributed to the next sub-phase, for it was formed immediately after the walking surfaces were used. However, since the artefacts from this layer belong to the period in which the castle was inhabited, we have placed it into this sub-phase. Especially the aforementioned sand and the burnt layers could be found throughout the entire site.

The rubble ruin layers (*SU 1991/08, 1994/04*) were placed into s*ub-phase 4c*. These layers were formed during the long lasting castle decay and when it was robbed for its building materials. This means that the material found in this layer includes finds from unspecified dates after the event in which the castle was ruined. However, as all of the layers within this sub-phase were removed together, i.e. in an unstratigraphic manner, they are treated as a single layer.

The fifth phase includes the Post-medieval layers that were created upon the ruins or once the ruins from phase 4c were removed. The Post-medieval fort on the southwest part of the Mali grad hill belongs to this phase. However, none of the events from the period could be archaeologically documented. The castle chapel and its immediate surroundings remained in use until the present (*SU 1994/06*). The late Post-medieval vegetable gardens found in the castle core belong to this phase (*SU 1986/07, 1990/20–21, 1991/09, 1994/07*) as do the remains of the modern construction works (*SU 1986/08, 1990/22, 1991/10*).

1991 pottery fragments and 28 metal finds, which is 16 percent of the pottery and just under half of the metal finds (most from phases 4b and 4c), were attributed to specific stratigraphic units. The stratigraphic position of the remaining finds could not be defined.

The Harris matrix is of key importance for the explanation of the relative chronology. The stratigraphic links between the archaeological layers and the standing structures (walls) should also be mentioned. Regardless

jo. V Harrisov diagram smo zato umestili tudi zidove grajskega jedra.

Še posebej je rezultat diagrama v našem primeru pomemben zaradi skupine "Požar". Ta omogoča, da vse najdbe te skupine lahko obravnavamo kot sočasne oziroma kot t. i. zaprti kontekst (glej poglavje 8.4).

4.2. OBJEKTI

4.2.1. OBJEKTI ZGODNJESREDNJEVEŠKE FAZE 3

Na območju poznejšega grajskega jedra je bilo dokumentirano skeletno grobišče s pokopi najmanj 32 pokojnikov (*SE 1990/10*). Dosedanje raziskave so pokazale, da gre za načrtno zasnovano grobišče. Osnovno smer in modularno zasnovo je Sagadin (2001a) prepoznal na podlagi lege posameznih grobov oziroma lege skeletov. Večina odraslih oseb je pokopana v trikotnem jedru grobišča, pri čemer na delu grobišča prepoznamo dve vrsti. Otroci so bili pokopani v dveh skupinah na obrobju. Osrednji prostor grobišča omejujejo grobovi najstarejših pokojnikov, dveh moških (grobova 2 in 12) in ženske (grob 27; *sl. 4.4*).

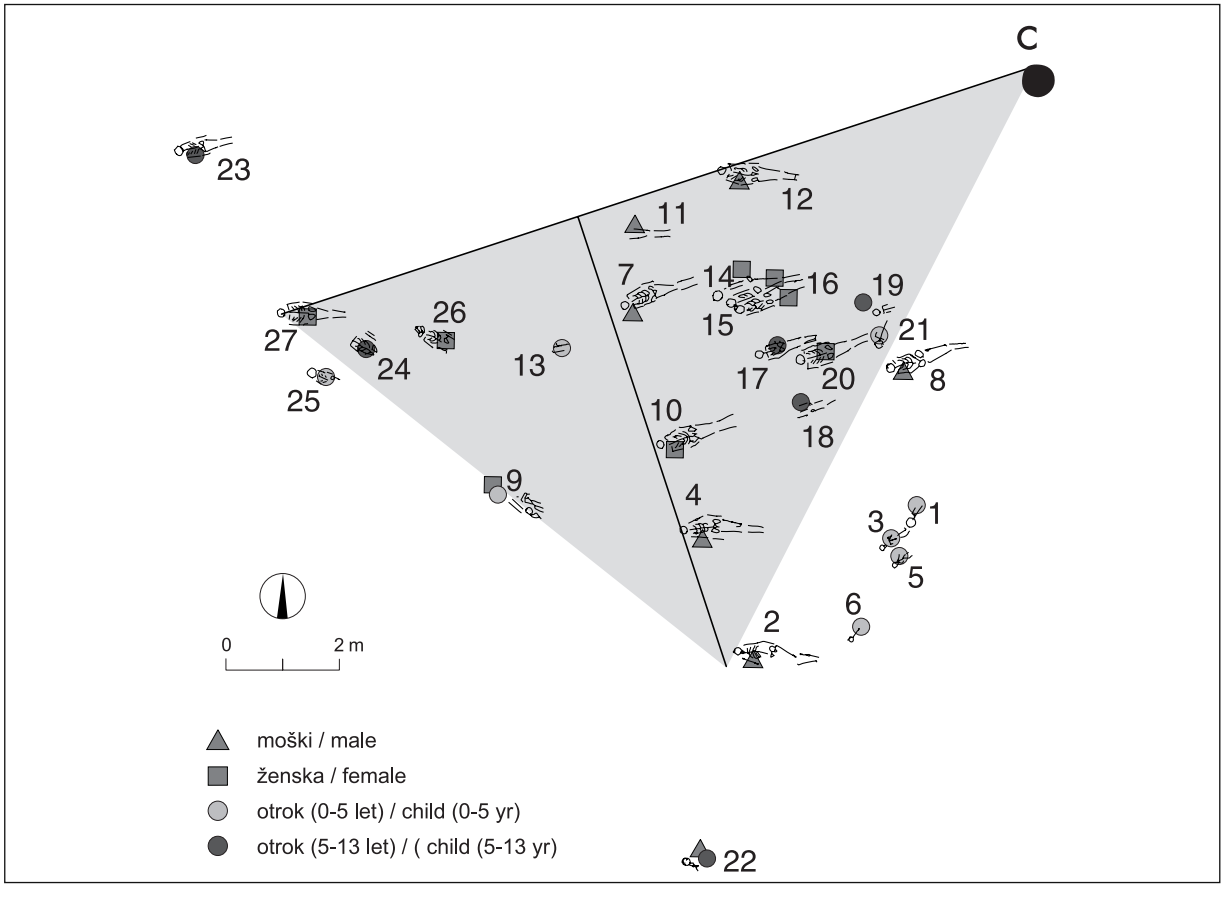
of its undisputable usefulness the Harris matrix is often not used in modern casteology research.

Due to the stratigraphic group 'Fire' the diagram result is especially important in our case. This enables us to treat all finds within this group as if they belonged to the same period (see chapter 5.6).

4.2. STRUCTURES

4.2.1. STRUCTURES FROM THE EARLY MEDIEVAL PHASE 3

In the area of the later castle core a skeletal burial site with at least 32 deceased (*SU 1990/10*) was documented. The research conducted so far has shown that this was a spatially well planned burial site. Sagadin (2001a) recognised the basic orientation and modular plan on the basis of the position of the individual graves or skeletons. The elemental module measures approximately two metres and a half in length. Only two graves appear to differentiate from this positioning (22 and 23; *fig. 4.6*). The central space of the burial site is limited by the graves of the oldest deceased, two men (graves 2 and 12) and a woman (grave 27; *fig. 4.4*). Most adults were



Sl. 4.4: Mali grad, načrt grobišča. Biološki spol pokojnikov in modularna zasnova grobišča (vir: Sagadin 2001, sl. 5).
Fig.4.4: Mali Grad, cemetery plan. Biological sex of the deceased and teh modular plan (source: Sagadin 2001).

V fotografski dokumentaciji smo prepoznali tri vkope, ki stratigrafsko sodijo v fazo grobišča. Dva (*SE 1986/19* in *1986/21*; *sl. 4.5*: B in C; *sl. 4.6*: B in C) verjetno lahko interpretiramo kot jamo za kol (prim. Barker 1977, 83–87). Dva (*SE 1986/17* in *1986/21*; *sl. 4.5*: A in C; *sl. 4.6*: A in C) imata zelo temno polnilo, ki kaže na prisotnost oglja. Na podlagi skromnih podatkov interpretacija ni možna. Jami za kol sta na vzhodnem robu grobišča, ena na predhodno prepoznani osnovni liniji ureditve grobišča (*SE 1986/21*; *sl. 4.6*: C). Modularna zasnova grobišča je bila v času uporabe torej jasno označena (prim. Pleterski 1996, 175–178).

V fazo 3 uvrščamo tudi vkop (*SE 1992/31*), na dnu katerega je bil najden novec Licinija I., kovan leta 320 n. št. (Šemrov 1998, 161, št. 82). Stratigrafsko bi bila lahko jama tudi starejša ali mlajša od grobišča. V fazo 3 jo uvrščamo na podlagi znanega običaja uporabe rimskodobnih novcev v zgodnjesrednjeveških grobovih (npr. Kastelic, Škerlj 1950, slika 21), primerjave s podobnimi jamami na zgodnjesrednjeveških grobiščih (npr. Pleterski 2004, 122) in podatka, da na najdišču ni drugih rimskodobnih objektov.

Severno od tega vkopa je jama (*SE 1992/10*) brez najdb, obložena z vrsto kamnov (*sl. 4.6*: f). Na podlagi oblike, lokacije in konteksta jo interpretiramo kot kenotaf.

Naslednji arheološki zapis na prostoru grobišča so ostanki *žganine v krpah* (*SE 1990/05*; *sl. 4.6*: d). Na podlagi razmeroma skromnih podatkov lahko z gotovostjo zapišemo le, da gre za ostanke neznanih dejavnosti. Te je mogoče interpretirati bodisi kot ostanke kurjenja bodisi kot ostanke požara. Glede na omejen obseg in lego na grobišču se zdi verjetnejša interpretacija, da gre za dejavnosti na grobišču. Ostanki žganine so bili namreč

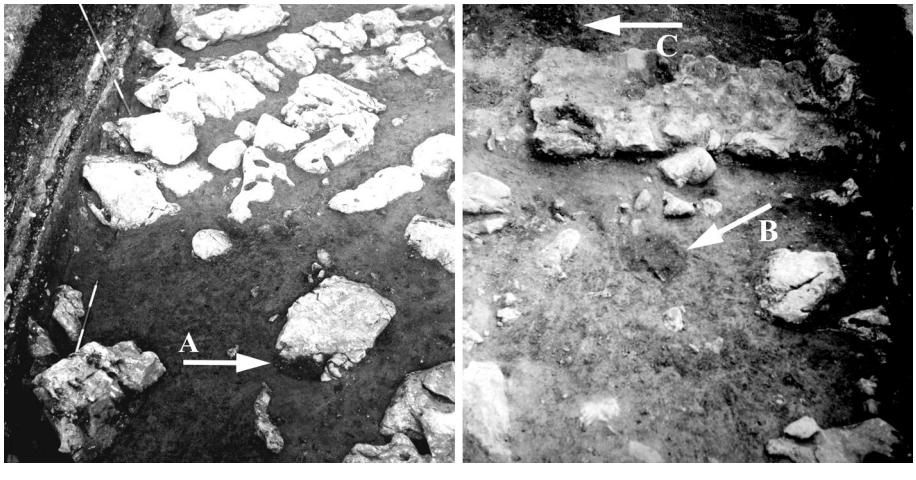
buried within this delimitation, and two rows of graves can be recognised. Children were buried in two groups outside the delimitation.

Within the photographic documentation three pits that stratigraphically belong to the burial site phase were recognised. Two (*SU 1986/19* and *1986/21*; *fig. 4.5*: B and C) can most probably be interpreted as a post hole (for definition see Barker 1977, 83–87). Two (*SU 1986/17* and *1986/21*; *fig. 4.5*: A and C) have a very dark filling which indicates the presence of charcoal. Due to the poor data at our disposal it is impossible to interpret them. The post holes are located on the eastern edge of the burial site, one on the previously recognised origin of the modular plan of the burial site (*SU 1986/21*; *fig. 4.6*: C). The latter was therefore clearly marked at the time of usage (cf. Pleterski 1996, 175–178).

Phase 3 also includes the pit (*SU 1992/31*) at the bottom of which a coin of *Licinius I*, forged in 320 AD (Šemrov 1998, 161, No. 82), was found. Stratigraphically this pit could be post or pre burial site. It is placed into phase 3 on the basis of the analogies for the Early Medieval ritual in which Roman coins were placed into graves (see Kastelic, Škerlj 1950, figure 21), comparisons with similar pits from Early Medieval burial sites (e.g. Pleterski 2004, 122) and the fact that that there are no other structures that would date to the Roman Period at this site.

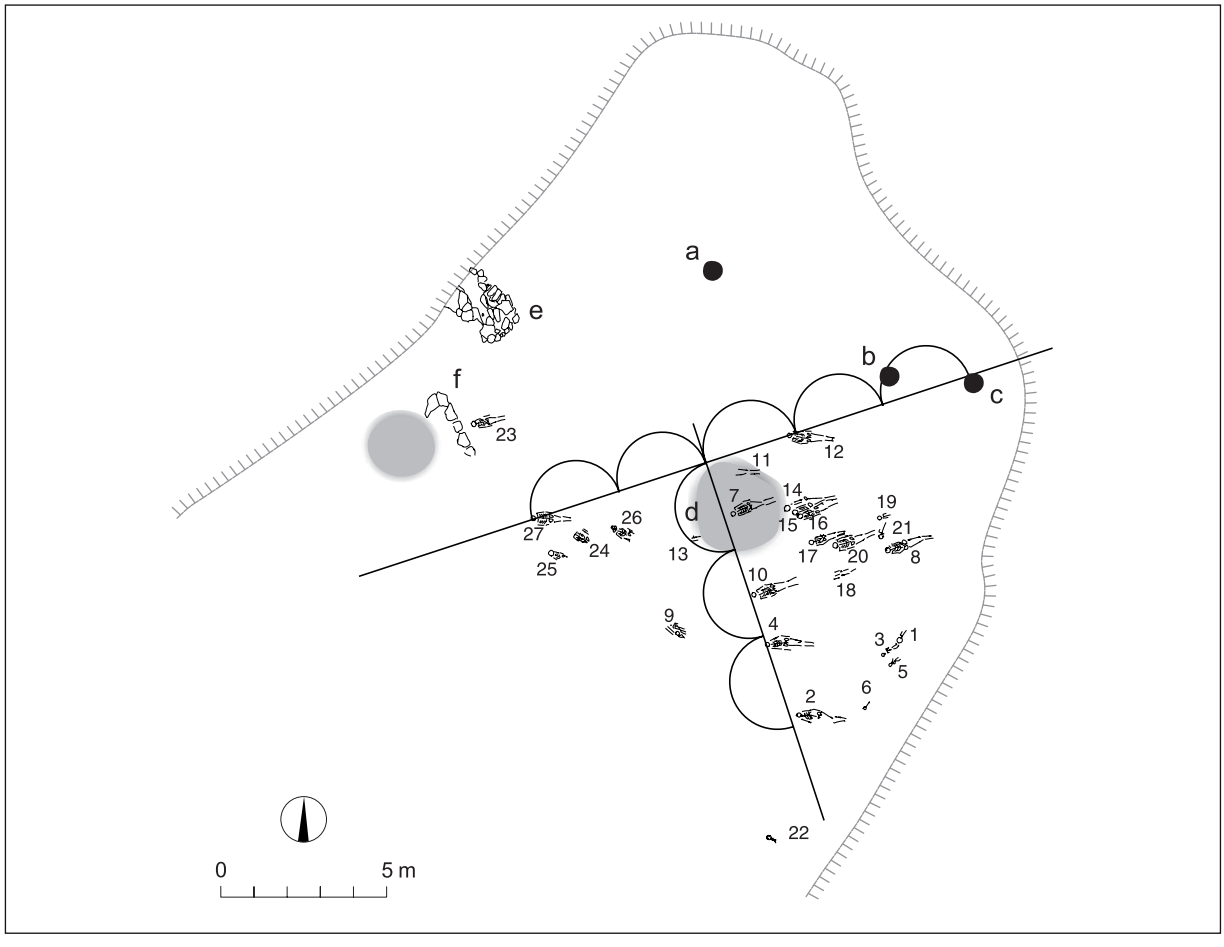
North of this pit lies a pit lined with stones (*SU 1992/10*) in which no small finds were discovered (*fig. 4.6*). On the basis of the shape, location and context it is interpreted as a cenotaph.

Scattered patches of burnt material can also be found at the burial site (*SU 1990/05*). Due to the relatively



Sl. 4.5: Levo. Mali grad, prostor severno od prvega palacija. Puščica kaže vkop (*SE 1986/17*; pogled proti zahodu). Desno. Mali grad, prostor severno od prvega palacija. Puščici kažeta vkopa (*SE 1986/19* in *1986/21*; pogled proti vzhodu; obe fotografiji: dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).

Fig. 4.5: Left. Mali Grad, space north of the first palatium after the excavation of the final layer. The arrow indicates archaeological structures (*SU 1986/17*; view to the west). Right. Mali Grad, space north of the first palatium after the excavation of the final layer. The arrows indicate both archaeological structures (*SU 1986/19* and *1986/21*; view to the north; both photos: documentation of ZVKDS, OE Kranj, photograph by M. Sagadin).



Sl. 4.6: Mali grad, načrt grobišča (po: Sagadin 2001, sl. 5).
Fig. 4.6: Mali grad, cemetery plan (after Sagadin 2001, fig. 5).

dokumentirani v središču grobišča. Skromni podatki dopuščajo možnost, da gre za ponavljajočo se dejavnost.

Sočasen grobišču je tudi suhozidni objekt (*SE 1992/04*; *sl. 4.6: e*). Gre za približno pravokotno jamo širine približno 80 centimetrov in dolžine 200 centimetrov, obdano s suhim zidom, pri čemer izkorišča tudi živo skalo. Suhozid ob robu jame je iz velikega, neobdelanega kamenja, ki kaže, da gre pogosto le za velike odbitke žive skale s tega mesta. Glede na podatke ne moremo sklepati o namembnosti objekta niti ne o tem, ali je v povezavi z grobiščem.

4.2.2. ZIDANI OBJEKTI VISOKOSREDNJEVEŠKE FAZE 4A

Faza 4a je bila določena na podlagi analize stavbnega razvoja (Sagadin 1997a, sl. 15). Ostanki zidov predstavljajo večino podatkov o njej.

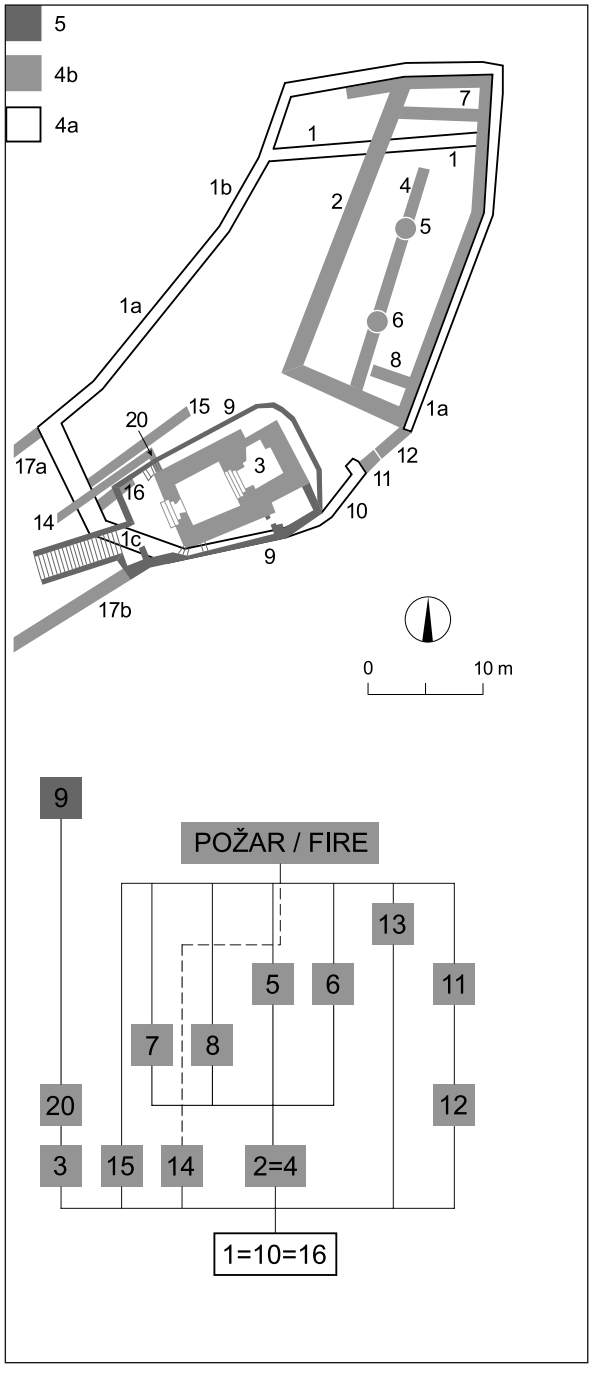
V to fazo lahko izmed zidanih objektov umestimo le *zidove 1, 10* in *16* (*sl. 4.7*), ki so bili grajeni hkrati, kar dokazujejo t. i. vezani stiki med njimi. Gre za enodelne zidove, grajene iz bolje ali slabše obdelanih kvadrov (*sl.*

poor data these can only be interpreted as remains of unknown activities, either as remains of a fireplace or as the remains of the devastating fire. Taking into account the limited volume and the position within the burial site it seems more likely that it was linked to activities at the burial site. The fire remains were documented in the centre of the burial site. The poor data allows for the possibility that this was a reoccurring activity.

The dry wall structure (*SU 1992/04*; *fig. 4.6*: E) can be dated to the same period as the burial site. This is an almost rectangular pit approximately 80 centimetres wide and 200 centimetres long, surrounded by a dry wall based on the bedrock. From the available data it is impossible to make direct inferences as to the purpose of the structure or whether it is linked to the burial site or not.

4.2.2. BUILDINGS FROM THE HIGH MEDIEVAL PHASE 4A

Phase 4a was first determined through the analysis of the building development (Sagadin 1997a, sl. 15). Within this phase most data is represented by the wall remains.



Sl. 4.7: Mali grad, stavbni razvoj grajskega jedra. Načrt gradu in Harrisov diagram zidov.
Fig. 4.7: Mali grad, castle core. The castle plan and Harris' matrix of the castle core walls, the so-called building development.

4.9 in *sl. 4.11*). Pri zidu 16 je bil del temelja zgrajen v tehniki ribja kost, kar pa so zakrila moderna restavratorska dela. Zidovi so debeli približno 1 meter, le *zid 1c* je debel 1,7 metra.

Zid 1 na severni strani omejuje podolgovato stavbo s stranicama 7 metrov in 20 do 22 metrov, usmerjeno vzhod–zahod, ki sledi robu skalne police. To v nadaljevanju imenujemo *prvi palacij*. Zidovi prvega palacija, označeni



Sl.4.8: Mali grad, severovzhodni vogal, *zid 1b*, pogled proti zahodu. Polna svetla črta prikazuje potek naravne skalne osnove, črtkana pa raven hodne površine faze 4a (fotografija avtor).
Fig. 4.8: Mali grad, north-eastern corner, *wall 1b*, view towards the west. Full line shows the live rock base, broken line shows the walking surfaces in phase 4a (photograph by the author).

Walls 1, 10 and *16* (*fig. 4.7*) can be placed into this phase, for it is clear from the joints between them that they were built at the same time. They are single face walls, built from more or less roughly worked stone blocks (*fig. 4.9*. and *fig. 4.11*). Part of *wall 16*'s foundation was built used the fishbone pattern technique; however this was covered by modern restoration work. The walls measure approximately 1 meter in width - with the exception of *wall 1c* which is 1.7 metres wide.

On the northern side *wall 1* delimits a longitudinal building measuring 7 metres by 20 to 22 metres in length. It has an east-west orientation that follows the edge of the rock ledge. For easier understanding this building will be described throughout this book with the term the first palatium. The walls of the first palatium, marked wall *1b*, were made from precisely worked blocks that are almost dressed blocks. The northeast and southwest outer wall of the castle, *wall 1a*, was not built with such valuable material. In this part the blocks are roughly worked. Due to the poor current condition of the southern wall of the first palatium it can no longer be precisely defined.

On the northeast the Mali grad hill does not end with precipice, thus it might have been passable prior to the construction in phase 4a. This is why the wall on this part is higher (*fig. 4.8*). The cliff of the Mali grad hill seems to have been at least partially hewed on this side. The inclination of the bedrock can also be indirectly discerned from the archaeological documentation.

Most of *wall 1* on the eastern side has collapsed during the Middle Ages and was consequently substituted by *wall 2*. The reason and time of destruction are unknown. The most likely explanation is that the statically weak wall was demolished during the construction works in phase 4b and substituted with a new one.

kot *zid 1b*, so izdelani iz natančneje obdelanih kvadrov. Severovzhodni in jugozahodni obodni zid gradu, *zid 1a*, sta grajena slabše. Kvadri so le grobo obdelani in tudi zidava je manj natančna. Južne stene prvega palacija zaradi stanja ohranjenosti ni več mogoče natančneje opredeliti.

Na severovzhodnem delu se naravna skalna osnova dviga nekoliko položneje, tako da je bila prvotno, pred gradbenimi posegi v fazi 4a, morda prehodna. Zato je zid na tem delu višji, saj premošča višinsko razliko (*sl. 4.8*). Skalna osnova ob vznožju malograjskega griča se zdi vsaj deloma obklesana. Padec skalne osnove je razviden tudi iz opisov plasti v notranjosti in risb.

Na večjem delu vzhodne stene se je *zid 1* porušil in je bil nadomeščen z *zidom 2*. Vzrok in čas rušenja nista znana. Najverjetnejša razlaga je, da so ob prezidavah faze 4b statično oslabljen zid porušili in ga nadomestili z novim.

Odsek *zidu 1c* v jugozahodnem vogalu je bil na prvotnem načrtu (Sagadin 1997a, sl. 17) zakrit s stopniščem kapele. Po izkopavanjih leta 1995 se je pokazalo, da se zid na tem mestu zalomi v smeri vogala poznejše kapele. Zidni presledek kaže na pozneje zazidan vhod (*sl. 4.7*).

Zid 16 je bil grajen hkrati z *zidom 1c* in je ohranjen le v dolžini 3,9 metra ter poteka vzporedno z *zidom 1a*. To najverjetneje kaže, da gre za ostanek objekta v jugozahodnem kotu gradu. Ker pa *zid 16* izginja pod temelji kapele (*zid 14*), se je sprva zdelo, da gre za ostanek objekta na mestu kapele (Sagadin 1997a, 107), torej v južnem vogalu.

Zid 10 je del *zidu 1a*, ki je bil v fazi 5 deloma nadomeščen z *zidom 9*. Predvsem je pomemben zaključek *zidu 10*, ki se zalomi navznoter, v smeri grajskega dvorišča. Tako ustvari na zunanji strani obzidja majhno skalno ploščad.

Južno od plaščnega zidu je dostop do gradu varoval približno 5,4 metra širok in 8 metrov globok obrambni jarek (Sagadin 1997a, 107). Območje jarka ni bilo raziskano, položaj in dimenzije so razvidni iz zajede v skalni osnovi, ki jo zapira zid faze 4b (*sl. 4.23*).

Okljuka *zidov 1c* in *10* kažeta grajski vhod v fazi 4a (*sl. 4.14*). Temu seveda ni mesto v najmočnejšem delu obzidja (*1c*), ki brani najlažji dostop do gradu, kot so prvotno domnevali (Sagadin 1997a, 106–107). Le trije odstotki gradov imajo namreč vhod skozi plaščni zid (Krahe 2002a, Abb. 28).

Vhod v skalne gradove bi lahko vodil tudi po stopnicah, vklesanih v skalo (Krahe 2002a, 31 in Abb. 31). Če bi bila na Malem gradu uporabljena ta rešitev, bi pričakovali ohranjene sledi stopnišča. Glede na znane podatke se zdi najverjetnejša rešitev s stranskim vhodom, do katerega vodi pot po robu skalne police. Takšno rešitev Antonow (prim. Krahe 2002a, 30) predstavi celo kot idealiziran grad s plaščnim zidom (*sl. 4.9*). Poleg lege vhoda je pri tej idealizirani rekonstrukciji zanimiv tudi položaj palacija oziroma trdne hiše kvadratnega tlorisa, ki se ujema z možno interpretacijo malograjskega *zidu 16* kot ostanka stavbe.

In the original plan (Sagadin 1997a, sl. 17) the southwest corner of *wall 1c* was covered by the chapel stairway. Following the 1995 excavations it was discovered that from here the wall turned towards the corner of the later chapel. The gap in the wall shows that there used to be an entrance, however it was covered up at some later point in time (*fig. 4.7*).

Wall 16, running parallel to *wall 1a,* was built at the same time as wall 1c and is preserved only in the length of 3.9 metres. The most likely conclusion is that this is a remnant of a structure that stood in the southwestern part of the castle. As *wall 16* disappears under the foundations of the chapel (*wall 14*), it was originally interpreted as a remnant of a structure that stood at the same location as the chapel (Sagadin 1997a, 107), i.e. in the south corner of the phase 4a castle.

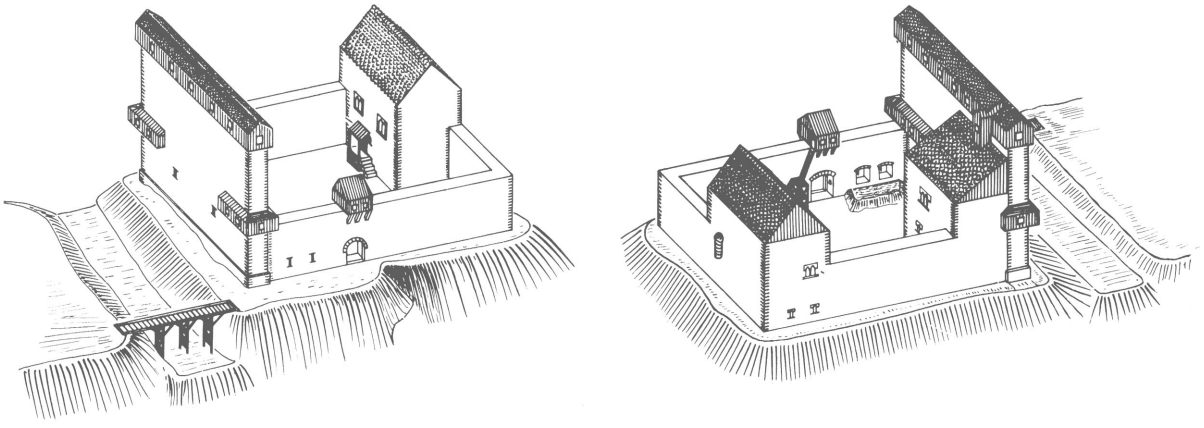
Wall 10 is a part of the wall that was substituted by *wall 9* in phase 5. Especially important is the ending of *wall 10*, which turns towards the interior, in the direction of the inner castle bailey, thus creating a small rock plateau on the outer part of the castle fortification.

South of the outer wall the castle was protected by an approximately 5.4 meters wide and 8 meters deep defensive moat (Sagadin 1997a, 107). The moat has not been excavated; the position and dimensions are visible from the cut into the bedrock that is closed by the wall from phase 4b (*fig. 4.23*).

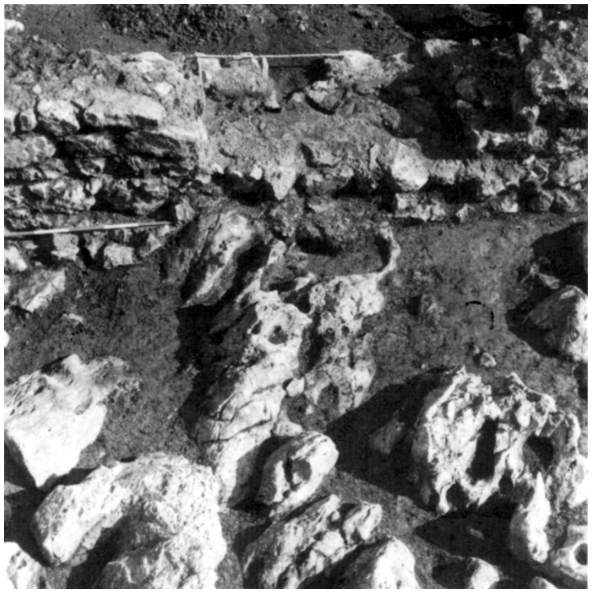
The entrance into the castle was probably not located at the strongest part of the fortification (*wall 1c*), i.e. the curtain wall, which defended the easiest access to the castle - as originally thought (Sagadin 1997a, 106–107). Since only three percent of all castles had an entrance through the curtain wall one could say that such entrances were extremely rare (Krahe 2002a, Abb. 28).

The entrance into rock castles could also lead up the stairs carved into bedrock (Krahe 2002a, 31 and Abb. 31). Should this be the case at Mali grad some stair remains hewed in the cliff should have remained. Taking into account the available data the most likely solution seems to be the one with the side entrance, the path to which lead along the edge of the bedrock plateau. The curves in walls *1c* and *10* support this hypothesis (*fig. 4.14*). Antonow (cf. Krahe 2002a, 30) presents such a solution as an idealised castle with an outer wall (*fig. 4.9*). Apart from the entrance position this idealised reconstruction also includes an interesting position of the building with a square ground plan that is in line with the plausible interpretation in which *wall 16* is a remnant of a building.

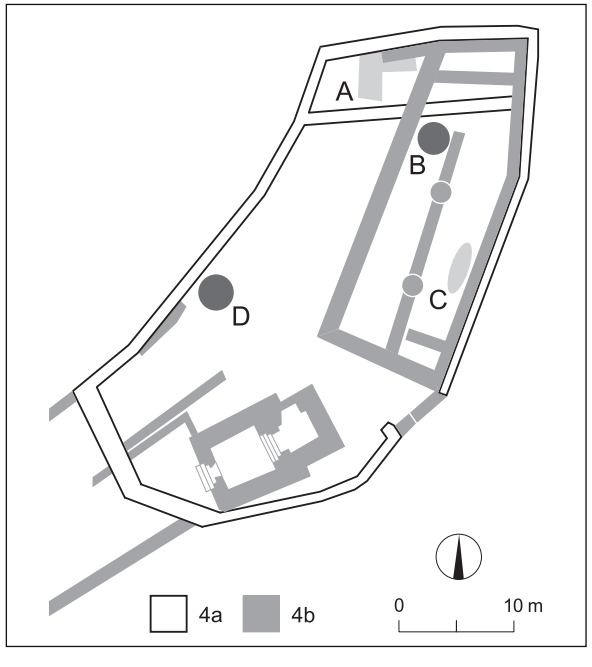
Contemporary remains of burnt clay were documented within the first palatium. In one example (*fig. 4.11*: A; *SU 1986/01*) they can be explained as a timber framed wall that divided the ground floor into two rooms (taking into account their form in the ground plan). Due to insufficient data this interpretation is unreliable; however we do not know of any other possibility that would take the ground plan into account.



Sl. 4.9: Idealiziran grad s plaščnim zidom, palacijem in dodatnim palacijem oziroma trdno hišo kvadratnega tlorisa v južnonemškem prostoru okrog leta 1275 (prirejeno po Antonow 1977, Abb. 31).
Fig. 4.9: Idealised castle with the outer wall, palatium and an additional palatium or a building with a square ground plan in the south German territories, approximately 1275 (adopted after Antonow 1977, Abb. 31).



Sl.4.10: Mali grad, zahodna niša v južni steni palacija, *zid 1*. Pogled z dvorišča proti prvemu palaciju (Sagadin 1997a, sl. 7).
Fig. 4.10: Mali grad, western niche in the south wall of the palatium, *wall 1*. View from the bailey towards the first palatium (Sagadin 1997a, sl. 7).



Sl. 4.11: Mali grad, najdbe ožgane ilovice. A in C faza 4a, B in D faza 4b.
Fig. 4.11: Mali grad, the charred clay finds. A and C phase 4a, B and D phase 4b.

Znotraj prvega palacija so bili dokumentirani sočasni ostanki ožgane ilovice. V enem primeru (*sl. 4.11*: A; *SE 1986/01*) jih lahko glede na obliko v tlorisu razložimo kot predelno steno, ki je delila pritlični prostor prvega palacija. Edini podatek, ki ga imamo, je razprostranjenost ostankov ožgane gline. Interpretacija zato ni zanesljiva, a druge možnosti glede na obliko v tlorisu ne poznamo.

Iz faze 4a so ohranjeni trije arhitekturni členi, ki pa so slabo opredeljivi. Dve pravokotni niši v južni, dvoriščni

Three architectural elements are preserved from phase 4a; however they are all hard to define. The two rectangular niches in the south, inner bailey side of the palatium (*wall 1*) could be remnants of the threshold (*fig. 4.10*). The level of the preserved paved layer (*SU 1986/09*) that matches the level of the niches supports this theory. If these are indeed entrances, their position is in line with the aforementioned division wall (*SU 1986/01*) that lies



Sl. 4.12: Mali grad, svetlobna lina v severni steni prvega palacija, *zid 1b*, pogled s Starega trga proti jugu (fotografija avtor).
Fig. 4.12: Mali grad, light loophole in the northern wall of the first palatium, *wall 1b*. View from town's Stari trg (Old market) towards the south (photograph by the author).

steni palacija (*zid 1*) bi lahko bili ostanek vratnih pragov (*sl. 4.10*). V prid tej razlagi priča nivo ohranjenega estriha (*SE 1986/09*), ki se ujema z nivojem niš. Če gre za vhoda, se položaj ujema z omenjeno predelno steno (*SE 1986/01*), ki leži med njima. Prvi palacij bi potemtakem imel v pritličju dva ločena prostora, vsakega s svojim vhodom.

V severni steni starejšega palacija se je približno 2,5 metra od severovzhodnega vogala na stojni višini v pritličju ohranila pokončna pravokotna odprtina (*sl. 4.12*; prim. Sagadin 1997a, 106). Gre za okno, ki je razsvetljevalo prostor čez vse leto (Krahe 2002a, 39), t. i. svetlobno lino. Okvir odprtine je izdelan iz istega materiala kot zid. Vsaj od sredine 12. stoletja dalje so bili okviri takšnih lin običajno izdelani iz drugega materiala in obdelani, na gradu Podsreda na primer že okoli leta 1150 (I. Sapač, ustna informacija).

4.2.3. PREOSTALE STRATIGRAFSKE ENOTE VISOKOSREDNJEVEŠKE FAZE 4A

V to fazo sodijo glede na stratigrafske odnose vkopi v rumenkastorjavo ilovico (*SE 1990/03*), v katerih je večja količina ožgane ilovice. Hkrati je bila na tem mestu na površini dokumentirana močno povečana koncentracija lončenine in ožgane ilovice (*sl. 4.13*: B). Opisano smo zaradi pomanjkljivih podatkov združili v stratigrafski objekt (*SE 1990/07*).

Tudi o drugi stratigrafski enoti faze 4a (*SE 1990/09*), ki izvira iz istega prostora, imamo zelo skromne podatke (*sl. 4.13*: C). Gre za ožgano zbito ilovico površine 0,3 metra krat 0,4 metra. Izkopavalec jo interpretira bodisi kot ožgan ilovnat omet, bodisi kot ognjišče. Najverjetne-

between the two. The first palatium would therefore have two detached rooms on the ground floor, each with its own entrance.

In the northern wall of the older palatium there is an upright rectangular opening at standing height, approximately 2.5 meters from the north-eastern corner on the ground level (*fig. 4.12*; cf. Sagadin 1997a, 106). This is the opening that gave light to the room throughout the year (Krahe 2002a, 39), the so-called light loophole. The opening has no special framing. Namely, from the beginning of the 12th century onwards the frames of similar openings were usually made from a different material and were elaborately worked - at the Podsreda castle for instance around 1150 (information I. Sapač).

4.2.3. REMAINING STRATIGRAPHIC UNITS FROM THE HIGH MEDIEVAL PHASE 4A

Taking into account the stratigraphic relations the pits with yellowish brown clay belong to this phase (*SU 1990/03*). The fillings of these pits include substantial quantities of burnt clay. A large concentration of pottery and burnt clay from this period was documented in the same area (*fig. 4.13*: B). Due to the lack of data we have merged the described into a single stratigraphic structure (*SU 1990/07*).

Scarce data is available also for the second stratigraphic unit in phase 4a (*SU 1990/09*), which originates from the same location (*fig. 4.13*: C). An area of 0.3 meters times 0.4 meters is covered with a compact burnt clay cover. The excavator's interpretation is that it is either a

je gre za prostor neznanih dejavnosti, ki so zahtevale uporabo kurišča.

Poleg zidov je najoprijemljivejša stratigrafska enota faze 4a estrih (*SE 1986/09*) v prostoru prvega palacija (*sl. 4.13*: A). Tam je bil estrih ohranjen pod ostanki line v *zidu 1*, tako da je stratigrafski odnos do zidu znan. Omenjena lina je vhod, zidove pa je prekrivalo pet centimetrov ilovice, naphane na starejšo ruševinsko plast (*SE 1986/02*). Obstoj estriha v notranjosti stavbe v fazi 4a torej ni sporen.

Izkopavalčev opis "ilovice, naphane na starejšo ruševinsko plast", priča o izravnavi terena za gradnje faze 4b, na podlagi katerih je bila določena stratigrafska ločnica med fazama 4a in 4b.

4.2.4. ZIDANI OBJEKTI VISOKOSREDNJEVEŠKE FAZE 4B

Najpomembnejši objekt te faze je bil pozidan znotraj grajskega jedra. Podolgovato stavbo, široko 10 do 12 metrov in dolgo 28 do 33 metrov, imenujemo mlajši oziroma *drugi palacij*. Vhod v palacij je bil skozi zahodno pročelje, približno na tretjini razdalje od jugozahodnega vogala. *Zid 2* drugega palacija je dvodelen, grajen iz lomljencev in debel približno 1,8 metra, ter prislonjen na starejše obzidje (*zid 1*). Hkrati tudi seka južno steno prvega palacija.

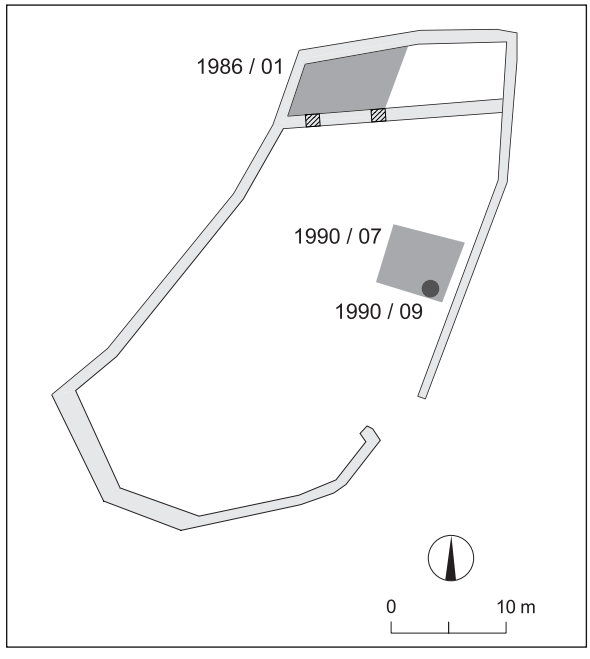
Drugi palacij deli po dolžini na dvoje *zid 4*, ki v severni tretjini stavbe ni ohranjen. Podporno vlogo tega zidu sta pozneje prevzela okrogla zidana podpornika, *zidova 5* in *6*. Zidana sta bila do višine enega metra in predstavljata bazo, najverjetneje za lesena stebra oziroma pokončna tramova. *Zid 4*, ki sta ga nadomestila podpornika, *zid 5* in *zid 6* torej pričajo o dveh gradbenih podfazah v času faze 4b. Ker pa te delitve nismo dokumentirali nikjer drugje, je nismo posebej poudarili. Zdi se, da ta dejavnost kaže le na manjšo preureditev pritličja drugega palacija.

Na severni strani palacij prečno predeljuje *zid 7*, katerega namembnost ni jasna. Od opisanih zidov so bili ohranjeni le temelji, tako da jih ne moremo natančneje opredeliti.

Na južnem delu drugega palacija leži *zid 8* (*sl. 4.14*), grajen v suhozidni tehniki. Tlakovan prostor med *zidovoma 8* in *2* je omejen na polovico širine drugega palacija (*SE 1991/03*; *sl. 4.11*).

Vzporedno z zahodnim obzidjem *1a* poteka kratek in slabo grajen *zid 13* iz neobdelanih kamnov, ki je bil postavljen na estrih (*SE 1986/10* ...). Zidec neznane namembnosti je nastal v zvezi s popravili ob podoru (glej dalje).

Znotraj grajskega jedra je bila urejena tudi grajska kapela, ki jo omejuje *zid 3*. Položaj malograjske kapele v grajskem jedru je pričakovan, saj je takšna umestitev značilna kar za 82 odstotkov grajskih kapel v vzorcu 4.000 gradov v visokosrednjeveškem Svetem cesarstvu. Toda le v 6 odstotkih primerov je grajska kapela zasnovana kot



Sl. 4.13: Mali grad, stratigrafske enote faze 4a.
Fig. 4.13: Mali grad, phase 4a stratigraphic units.

burnt clay roughcast or a fireplace. Due to insufficient data and since the roughcast interpretation was ruled out it can only be said that this is a place of unknown activities that demanded the use of fire.

The best documented stratigraphic unit in phase 4a (apart from the walls) is the mortar-paved layer (*SU 1986/09*) within the first palatium (*fig. 4.13*: A). This layer was preserved under the remains of the opening in wall 1, thus making the stratigraphic relation with the wall clear. The mentioned opening is an entrance, and the walls were covered by five centimetres of clay flattened over the older layer of ruins (*SU 1986/02*). The existence of the paved layer in the interior of the phase 4a building is therefore indisputable.

The excavator's description 'clay, flattened over the older layer of ruins', shows that the terrain was levelled for construction in phase 4b, which enabled us to determine the stratigraphic division between phases 4a and 4b.

4.2.4. BUILDINGS FROM THE HIGH MEDIEVAL PHASE 4B

In this phase the most important structure was built within the castle core. In the continuation of the text we will call the longitudinal building, 10 to 12 metres wide and 28 to 33 metres long, the younger or second palatium. The entrance into the palatium leads through the western front, approximately at one third of the distance from the southwest corner. *Wall 2* that belonged to the second palatium is a one face wall, built from roughly worked stone, approximately 1.8 meters thick, leaning



Sl. 4.14: Mali grad, izkopavanja leta 1991, pogled na vzhodni del obzidja (*zidovi 2, 12, 11, 10*) in objekt faze 4b (*zid 8*) v južnem delu drugega palacija, pogled proti jugovzhodu (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig.4.14: Mali grad, excavations in 1991, view towards the eastern part of the fortification (*walls 2, 12, 11, 10*) and the structure from phase 4b (*wall 8*) in the southern part of the second palatium, view towards the southeast (documentation from ZVKDS OE Kranj, photograph by M. Sagadin).

samostojna stavba (Krahe 2002a, 60–61). Dvonadstropna kapela na Malem gradu ima v spodnjem nadstropju pravokotno apsido, kar je značilno za 10 odstotkov grajskih kapel. V zgornjem nadstropju ima kapela tloris s polkrožno apsido, ki je zastopana pri četrtini raziskanih grajskih kapel (prim. Krahe 2002a, Abb. 101).

Redka je dvonadstropnost kapele. Oter Gorenčičeva (2007, 186) za nadstropnost grajske kapele navaja primerjave iz avstrijskoštajerskega Göstinga, avstrijskokoroškega Liebenfelsa, češkega Egra in bavarskega Nürenberga. Zgornje nadstropje naj bi služilo grajskemu gospodu in njegovi družini, spodnje pa ostalim prebivalcem gradu. V pritličju je kripta. Arhitektura torej poudarja družbene razlike med prebivalci gradu (prim. Krahe 2002a, 62).

Kapela je bila zgrajena iz lomljencev v tehniki plastene zidave s črtnim fugiranjem (*sl. 4.15*; rekonstrukcija na *sl. 4.16*). Nevezan stik *zidu* kapele *3* z obzidjem, *zidom 10*, kaže, da nista bila grajena hkrati (*sl. 4.17*). Ostanki pravilnih kvadratnih odprtin v zidu kažejo na leseni mostovž, speljan v dveh nadstropjih okoli kapele (Sagadin 1997b, 32).

Najstarejša arhitekturna člena v kapeli sta timpanon vhodnega portala in kapitel stebrov slavoloka med ladjo in prezbiterijem spodnje kapele, ki sta romanska. Timpanon je nastal konec 11. ali v prvi polovici 12. stoletja in je

on the older *wall 1*. It also cuts the southern wall *1b* of the first palatium.

In the northern third of the building, the second palatium was longitudinally divided in two by *wall 4*. The supportive role of this wall was later on adopted by the round supports, *walls 5* and *6*. At their highest they measured one metre and they represented a base, most likely for wooden pillars or vertical beams. *Wall 4* that was substituted by *walls 5* and *6* therefore clearly shows two sub-phases within phase 4b. Because this division has not been documented anywhere else, it was not especially emphasised. It seems that this activity points merely to minor rearrangements of the second palatium's ground floor.

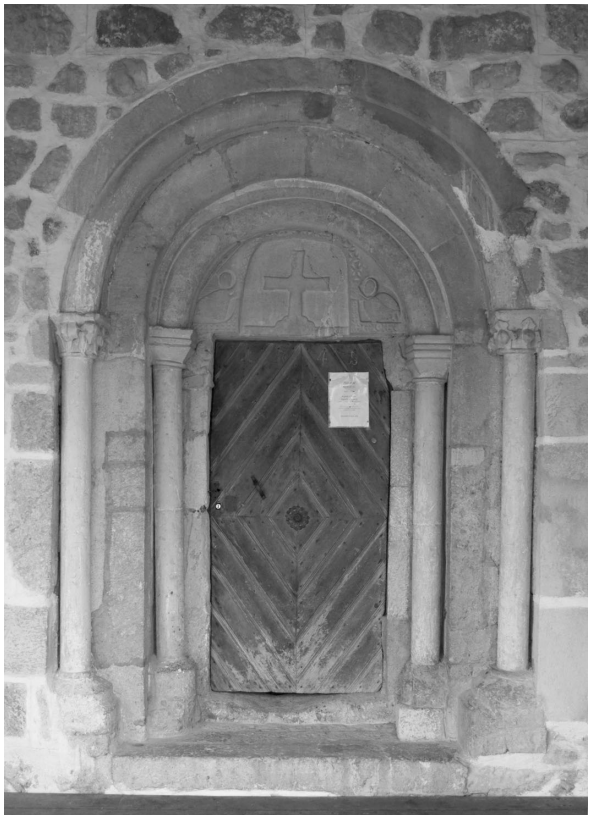
On the northern side the palatium is divided by *wall 7*, the purpose of which is not clear. Only the foundations of these walls remain, thus they can not be defined more precisely.

Wall 8 (*fig. 4.14*), built in the dry wall technique, stands on the southern part of the second palatium. The area between *walls 8* and *2*, paved with mortar, is limited to half the width of the second palatium (*SU 1991/03*; *fig. 4.11*).

Parallel to the western *wall 1a* runs the short and poorly constructed fieldstone *wall 13* that was built on the



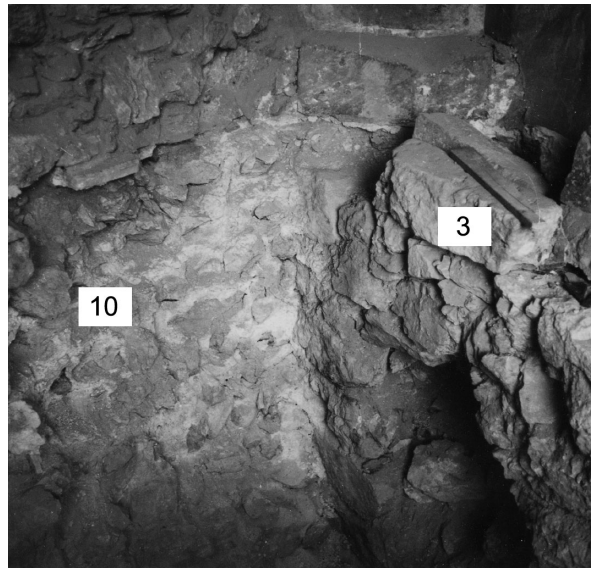
Sl. 4.15: Mali grad, kapela, podrobnost zidave *zidu 3* iz delno obdelanih peščenjakovih lomljencev v tehniki plastene zidave s črtnim fugiranjem (dokumentacija ZVKDS, OE Kranj, fotografija N. Leben).
Fig.4.15: Mali grad, chapel, detail of *wall 3*; constructed in layers of roughly worked sandstone with line fuges (documentation ZVKDS OE Kranj, photograph by N. Leben).



Sl. 4.16: Mali grad, portal malograjske kapele (fotografija M. Oter Gorenčič).
Fig. 4.16: Mali grad, chapel, entrance portal (photograph by M. Oter Gorenčič).

bil bodisi ponovno uporabljen ob gradnji mlajše kapele bodisi je ostal *in situ* ob prezidavi (prim. Oter Gorenčič 2007, 184–186; Cevc 1985, 67; Sagadin 1997b, 32, 33).

Kar nekaj romanskih arhitekturnih členov označuje čas izgradnje kapele. Stavba dvonadstropne kapele je



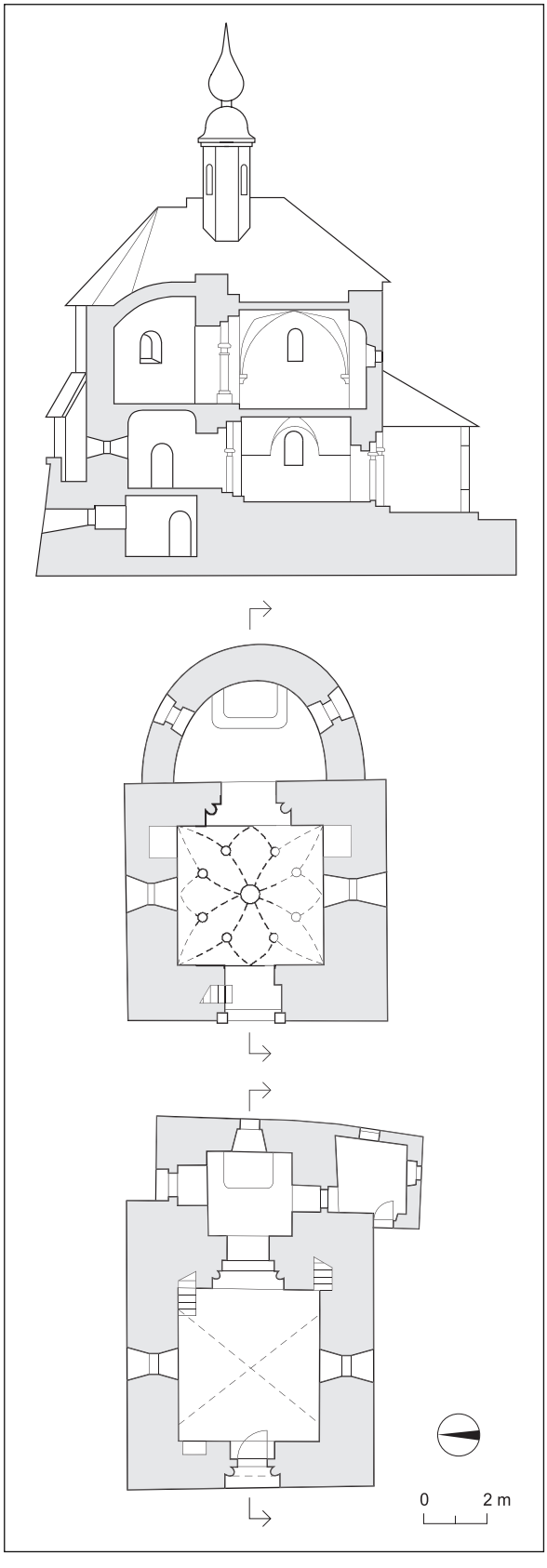
Sl. 4.17: Mali grad, stik zidu kapele (3) in obzidja (10) (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.17: Mali grad, the joint of the chapel wall (3) and the fortification wall (10) (documentation ZVKDS OE Kranj, photograph by M. Sagadin).



Sl. 4.18: Mali grad, kapela, romanski kapitel v zgornjem nadstropju kapele pred restavriranjem (dokumentacija ZVKDS, OE Kranj, fotografija N. Leben).
Fig. 4.18: Mali grad, chapel, Romanesque base in the upper storey of the chapel, prior to restoration (documentation ZVKDS OE Kranj, photograph by N. Leben).

paved level (*SU 1986/10...*). This small wall was probably a part of the repairs carried out when the foundation of the original wall collapsed (see below).

The castle chapel, limited by *wall 3*, also stood within the castle core. The position of the Mali grad chapel within the castle core is expected, for such placement is typical for as many as 82 percent of the castle chapels at the 4.000 observed castles in the High Medieval Holy Empire. However, the castle chapel was built as an independent building in a mere 6 percent of all cases (Krahe 2002a, 60–61). The two storey chapel at Mali grad has a rectangular apse in the lower floor,



Sl. 4.19: Mali grad, kapela. Zgoraj, prerez, rekonstrukcija podobe iz konca 12. ali začetka 13. stoletja po Milanu Sagadinu (1997b, 31). Sredina, tlorisni načrt zgornjega nadstropja. Spodaj, tlorisni načrt spodnjega nadstropja (vir: dokumentacija ZVKDS, OE Kranj).

Fig. 4.19: Mali grad, chapel. Above: the cross sections from the end of the 12th century or beginning of the 13th century as seen by Milan Sagadin (1997b, 31). Centre: ground plan of the upper level. Below: ground plan of the lower level (source: documentation ZVKDS OE Kranj).

bila zgrajena naenkrat. Portal vhoda v spodnjo kapelo je sestavljen iz omenjenega timpanona, ki mu je dodan notranji par stebrov romanskega sloga in zunanji par

which is typical for 10 percent of castle chapels. In the upper floor the chapel has a semi-circular apse, which is representative for three quarters of the researched chapels (cf. Krahe 2002a, Abb. 101).

Two storey chapels are rare. Oter Gorenčič (2007, 186) mentions the following examples of two storey chapels: Gösting in Austrian Styria, Liebenfels in Austrian Carinthia, Eger in the Czech Republic and Nürenberg in Bavaria. The upper storey was supposedly used by the Lord of the castle and his family, while the lower was for the remaining castle residents. The ground floor also includes a crypt. The architecture therefore emphasises the social differences between the castle inhabitants (cf. Krahe 2002a, 62).

The chapel was built with roughly worked stone, onto which roughcast was applied and line fugues were used (*fig. 4.15*; reconstruction on *fig. 4.16*) in order to obtain the appearance of dressed blocks. The chapel's *wall 3* is not joined with *wall 10* of the fortification (*fig. 4.17*). This points towards the fact that the chapel was built later than the oldest castle wall. The remains of the regular square holes in the wall point towards a wooden gallery that led around the chapel on both levels (Sagadin 1997b, 32).

The oldest architectural elements in the chapel are the tympanum at the entrance portal and the column base of the arch that separates the nave and the presbytery in the lower chapel, both of which belong to the Romanesque period. The tympanum was made at the end of the 11th or in the first half of the 12th century and was either reused during the construction of the later chapel or remained *in situ* when the chapel was rebuilt (cf. Oter Gorenčič 2007, 184–186; Cevc 1985, 67; Sagadin 1997b, 32–33).

Numerous architectural elements of the Romanesque style denote the period in which the chapel was erected. The two stories of the chapel were built at the same time. The entrance portal into the lower chapel includes the aforementioned tympanum and an inner pair of columns in the Romanesque style as well as an outer pair in the Early Gothic style. The windows in the lower chapel are not preserved in their original form; only one side of the original Romanesque style windows is preserved. In the upper chapel two original windows are preserved, both in the Romanesque style. The ceiling was originally made from wood. The Romanesque style portal

stebrov zgodnjegotskega sloga. Okni v spodnji kapeli nista ohranjeni v prvotni obliki; od prvotnih romanskih oken je ohranjeno le po eno ostenje. V zgornji kapeli sta ohranjeni prvotni okni, izdelani v romanskem slogu. Strop je bil prvotno lesen. Romanski portal (*sl. 4.18*) v zahodni steni zgornje kapele dokazuje prvotno neposredno povezavo z grajskimi prostori. Našteta stavbna plastika kaže na konec 12. ali začetek 13. stoletja (Sagadin 1997b, 29–38; prim. Stele 1928, 70–72; Cevc 1972; Cevc 1985; Oter Gorenčič 2007, 185).

Podatki, ki so jih razkrila restavratorska dela v 90. letih prejšnjega stoletja, so ovrgli prvotno teorijo Cevca (1972), po kateri naj bi bila v 11. stoletju postavljena kripta in prostor prezbiterija nad njo, dokončno podobo pa naj bi kapela dobila v začetku 13. stoletja. Analiza zidu je pokazala, da je bila kapela zgrajena v celoti hkrati z drugimi gradbenimi dejavnostmi faze 4b (*sl. 4.19*; Sagadin 1997b, 31). Kljub temu ostaja raznorodnost romansko-zgodnjegotske stavbne plastike v obeh kapelah in kripti neizpodbitno dejstvo (Oter Gorenčič 2007, 179–190). Še najmanj prepričljiva se zdi teza o skoraj stoletni prekinitvi gradnje zaradi neurejenega lastništva gradu (Oter Gorenčič 2007, 185). Morda je bil timpanon vhodnega portala vgrajen kot *spolija*, podobno kot številni rimskodobni spomeniki od poznega srednjega veka dalje. Datiranje zadnjih predelav v zgodnji novi vek, nekako v 16. stoletje,



(*fig. 4.18*) in the western wall of the upper chapel might indicate a direct link with the castle premises. The aforementioned decorative masonry indicates that it was built towards the end of the 12th or the beginning of the 13th century (Sagadin 1997b, 29–38; cf. Stele 1928, 70–72; Cevc 1972; Cevc 1985; Oter Gorenčič 2007, 185).

The data revealed by the restoration works in the 1990s refuted Cevc's (1972) original theory, according to which the crypt and the presbytery above it were built in the 11th century, while the 2nd floor was added at the beginning of the 13th century. The analysis of the wall has shown that the chapel was built at the same time as the other buildings in phase 4b (Sagadin 1997b, 31). Regardless of this the various Romanesque and Early Gothic decorative ornaments in both chapels and the crypt remain an undeniable fact (Oter Gorenčič 2007, 179–190). The least convincing thesis is the one of the one hundred year pause in the construction due to the disputed ownership of the castle (Oter Gorenčič 2007, 185). Maybe the entrance portal tympanum was included as a *spolia*, similar to numerous Roman era monuments that were placed into churches from the late medieval era onwards.

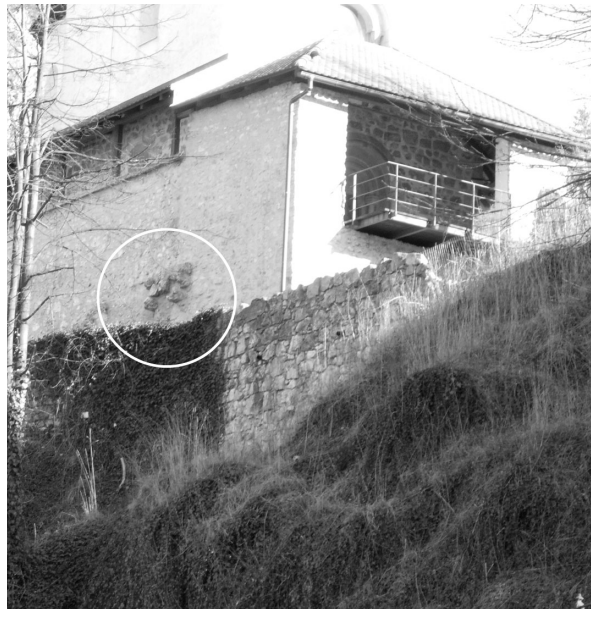
At first glance the position of the two entrances - to the upper and lower chapel floors - appear to be unusual. If the outer wall would have stood at its full height during phase 4b, both entrances (and the portals) would be squeezed into the corner between the fortification walls and the chapel. Such positioning would not represent a unique exception (cf. Krahe 2002a, Abb. 102), however it would be unusual as neither of the portals would be seen in their full splendour. Before we try finding a solution to this the remaining building elements should be presented (*fig. 4.22*).

Wall 14 runs parallel to *wall 17,* which is the south wall of the outer castle fortification wall. A stump of *wall 20* is still visible as it protrudes at a right angle to *wall 14* on the north-western wall of the chapel (*fig. 4.21*).

The fortification of the outer castle walls (*fig. 4.22*: 17) was built from roughly worked stones (*fig. 4.23*) and runs along the edge of the Mali grad hill. This wall leans against the fortification wall of the phase 4a castle (*wall 1c)* and is approximately 1 meter thick. A direct contact between walls *17a, 17b* and *17c* has so far not been revealed, however - judging by the identical building technique and material - it seems to be a unified fortification wall. This is especially important because *wall 17c* is linked to *wall 18* via the original tower at the western part of the castle hill. This was constructed from dressed stone blocks, and the bottom 5 rows managed to survive until today (*fig. 4.24*).

Sl. 4.20: Mali grad, kapela, poslikava na zakristiji (dokumentacija ZVKDS, OE Kranj, fotografija N. Leben).
Fig. 4.20: Mali grad, chapel, frescoes on the sacristy (documentation ZVKDS OE Kranj, photograph by N. Leben).

Sl. 4.21: Mali grad, pogled na kapelo s severozahoda. Označen je štrcelj *zidu 20* (fotografija avtor).
Fig. 4.21: Mali grad, view of the chapel from the northwest. The circle marks the small remains of *wall 20* (photograph by the author).



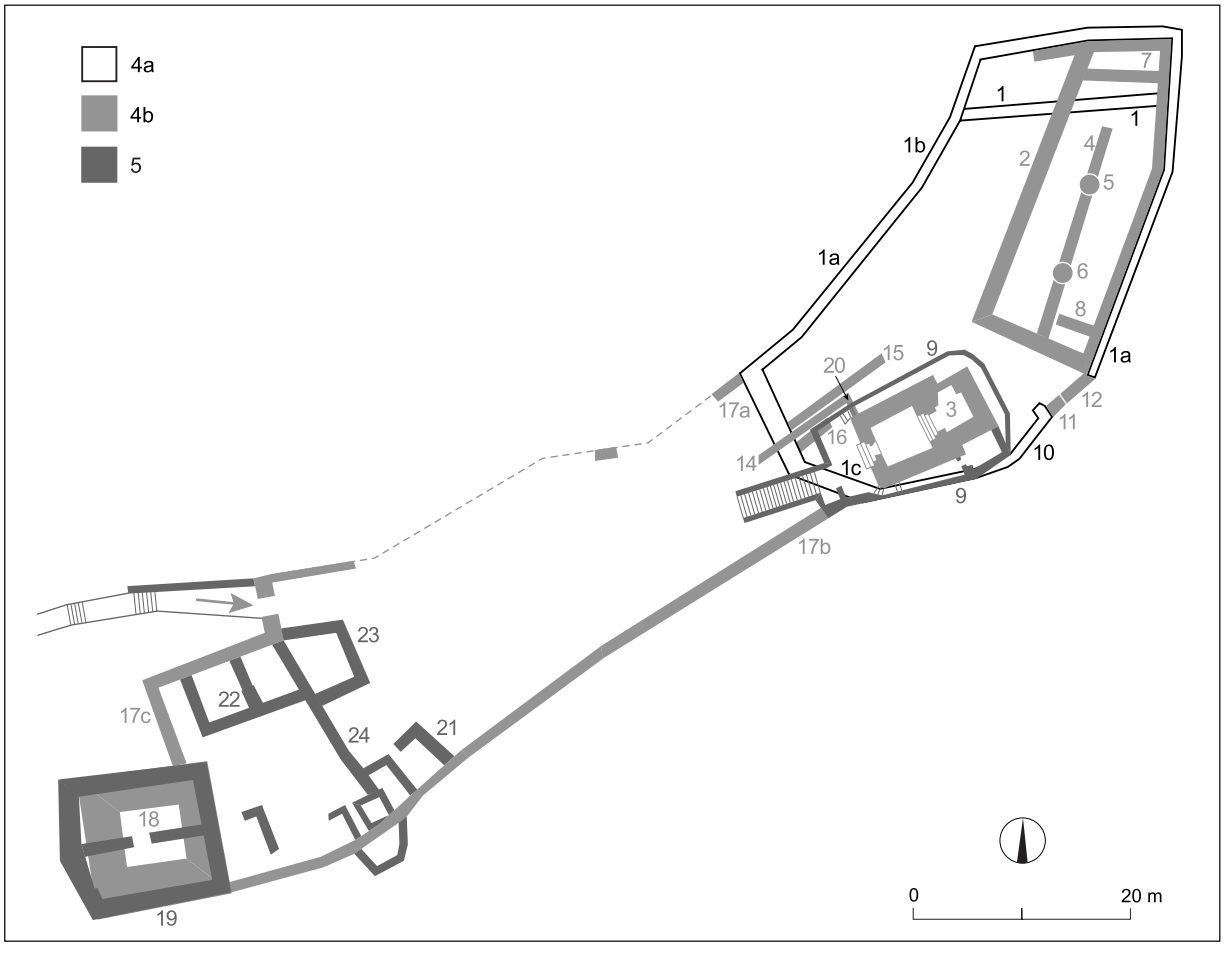
razkriva poslikava na zakristiji (*sl. 4.20*), ki je zgrajena na plaščnem zidu kapele.

Na prvi pogled se zdi nenavaden položaj obeh vhodov v zgornje in spodnje nadstropje kapele. Če predvidevamo, da je v fazi 4b plaščni zid stal v svoji celotni višini, potem sta oba vhoda s portaloma stisnjena v kot med obzidje in kapelo. Takšen položaj bi sicer ne bil popolna izjema (prim. Krahe 2002a, Abb. 102), kljub temu pa bi bil nenavaden, saj bi oba portala ne bila prišla do izraza. Preden poskusimo najti mogoče razlago, je treba predstaviti preostale stavbne elemente (*sl. 4.22*).

Zid 14 poteka vzporedno z južnim zidom obzidja predgradja, *zidom 17*. Na severozahodni steni kapele je opaziti štrcelj *zidu 20* (*sl. 4.21*), ki je pravokoten na *zid 14*.

Obzidje predgradja (*sl. 4.22*: 17) je zidano plasteno iz lomljencev (*sl. 4.23*) in poteka po robu skalne podlage grajskega hriba. Ta zid je prislonjen na obzidje prvotnega

During this phase the entrance into the castle led through the so-called Veronika's portal, where it remains until this day. The entrance, made into the original



Sl. 4.22: Mali grad, načrt gradu z oštevilčenimi zidovi in prikazom stavbnega razvoja (prirejeno po Sagadin 1997a, sl.15).
Fig. 4.22: Mali grad, castle plan with enumerated walls and building phases (adopted from Sagadin 1997a, sl.15).

gradu, na *zid 1c*, in je širok približno 1 meter. Neposreden stik med *zidovi 17a, 17b* in *17c* še ni razkrit, vendar gre, sodeč po načinu zidave, za enotno obzidje. To je pomembno predvsem zato, ker ima *zid 17c* vezan stik z *zidom 18* prvotnega bivalnega stolpa na zahodnem delu grajskega griča. Ta je bil grajen iz kvadrov, od katerih je ohranjenih spodnjih 5 vrst (*sl. 4.24*).

Vhod v grad je bil v tej fazi na mestu t. i. Veronikinega portala, kjer je še danes. Vhod, prebit skozi prvotno

curtain wall, links the inner bailey with the newly added outer bailey (*fig. 4.22*)

Based on the presented data the location of the entrances into the two floor chapel can be discussed. *Walls 20, 14* and *17b* surround a longitudinal space next to the southern fortification wall from three sides. The inner width of the area measures 7.75 meters. Due to the non existing research it is impossible to determine its length. However, it did not exceed 35 metres.



Sl. 4.23: Mali grad, južni del obzidja predgradja (*zid 17*) na mestu, kjer zapira starejši obrambni jarek (fotografija avtor).
Fig. 4.23: Mali grad, south part of the outer fortification walls (*17*), at the point at which it closes the older defence ditch (photograph by the author).



Sl. 4.24: Mali grad, severni zid bivalnega stolpa. Zid poznejšega stolpa mestne utrdbe temelji na zidu romanskega bivalnega stolpa, grajenega iz kvadrov (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.24: Mali grad, north wall of the living tower. The wall of the later tower belonging to the town fortification was based on the wall of a Romanesque living tower, constructed from dressed blocks (documentation ZVKDS OE Kranj, photograph by M. Sagadin).

ščitno steno, predstavlja prehod med dvema grajskima dvoriščema (*sl. 4.22*).

Sedaj se lahko vrnemo k mestu reprezentančnega vhoda v dvonadstropno kapelo. *Zidovi 20, 14* in *17b* s treh strani oklepajo podolgovat prostor, postavljen ob južno obzidje. Prostor ima notranjo širino 7,75 metra. O dolžini zaradi neraziskanosti ni mogoče reči ničesar, ni pa mogla presegati 30 do 35 metrov.

Če bi takšen prostor predstavljal stavbo, bi šlo lahko zgolj za še en grajski palacij. Takšen položaj in velikost bi predstavljala razmeroma velik palacij, a ne večji od drugega palacija, ki ga omejuje *zid 2*. Dvorišče je na tem delu gradu za razliko od dvorišča v grajskem jedru izravnano. Na prestižen položaj tega palacija v primerjavi z obstoječim bi kazala tudi neposredna povezava s kapelo, saj bi ta stala kot njegov zaključek .

In ravno kapela ponuja razlago, zakaj naj bi grad imel dva palacija. Dvojna kapela je bila namenjena poudarjanju družbenih razlik med prebivalci gradu. Morda ravno **med** prebivalci obeh palacijev. To tezo bodo dokončno potrdile ali ovrgle le dodatne raziskave na še neizkopanem osrednjem delu Malega gradu. O dodatnih argumentih za takšno interpretacijo bo govor v sklepu (glej poglavje 9.3).

4.2.5. PREOSTALE STRATIGRAFSKE ENOTE VISOKOSREDNJEVEŠKE FAZE 4B

Med najpomembnejše elemente te faze prištevamo estrih (*SE 1986/10, 1989/01, 1990/15, 1991/03, 1992/10, 1994/01*), ki smo ga že opisali (glej poglavje 4.1.4), saj je ključni stratigrafski element, ki je omogočil faziranje Harrisovega diagrama. Pojavljal se je na celotni površini dvorišča grajskega jedra. Zdi se, da je bil na nekaterih mestih večkrat preplasten, vendar več o teh dejavnostih iz dokumentacije ni razvidno.

V neposredni povezavi z estrihom sta tudi že omenjeni plast (*SE 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*), ki je nastala v času uporabe hodne površine, in žganinska plast (*SE 1986/05, 1991/07, 1992/0*), nastala v času za grad uničujočega požara.

Največ vkopov izvira z grajskega dvorišča faze 4b. Deset smo jih prepoznali ob zahodnem obzidju in štiri ob sočasnem drugem palaciju.

Vkope ob zahodnem obzidju (*sl. 4.25* in *sl. 4.26*) lahko razdelimo na dve velikostni skupini. Največja (*SE 1992/19*) pravzaprav ni vkop, saj gre za podor. Ta je bil še v času faze 4b tudi popravljen, zaradi česar so tudi zgradili bližnji *zidec 13*. Takšni podori so na visokosrednjeveških skalnih gradovih običajni. Zid so namreč graditelji postavili čim bliže robu skalne police in skušali stik med zidom in skalno osnovo čim bolj zgladiti. S tem je obzidje pridobilo odpornost proti oblegovalnim napravam, negativna posledica pa so bili omenjeni podori (prim. Stopar 2006, 57).

If this would be the area of a building this could only be another palatium. Its position and size indicate that it was a relatively large palatium, but it did not exceed the second palatium (limited by *wall 2)* in size. On the contrary to the inner castle bailey, the outer bailey is flat. The prestigious status of this palatium would also be shown by its direct link with the chapel that would have stood at its end.

The chapel also offers a possible explanation as to why the castle would have two palatiums. The two floors chapel with the different styled decorative architectural elements was intended to emphasise the social differences **between** the castle inhabitants, maybe between the inhabitants of the two palatiums. This thesis can be confirmed or rejected only through additional research of the so far unexcavated central part of Mali grad. Additional arguments for such an interpretation will be discussed in the conclusion (see chapter 9.3).

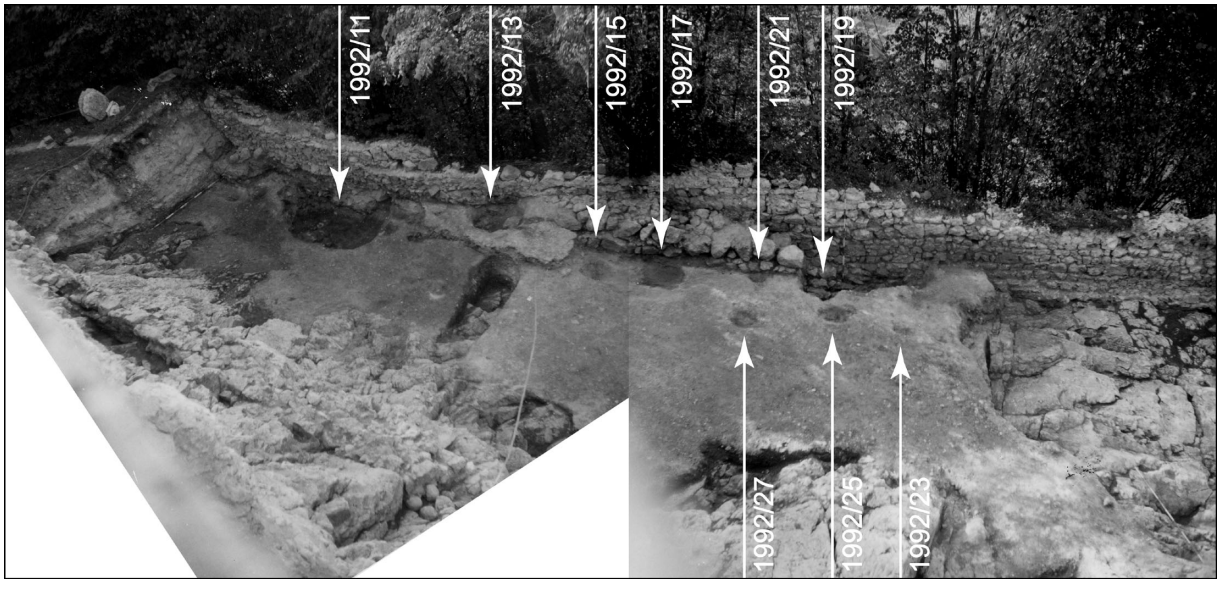
4.2.5. REMAINING STRATIGRAPHIC UNITS OF THE HIGH MEDIEVAL PHASE 4B

Amongst the most important features of this phase is the previously described (see above, 4.1.4) pavement (*SU 1986/10, 1989/01, 1990/15, 1991/03, 1992/10, 1994/01*), for it is the key stratigraphic element that enabled the phasing of Harris' matrix. This walking surface paved with mortar appeared across the entire inner castle bailey. In some places it appears to have been re-paved on a number of occasions, however not much more can be discerned from the documentation.

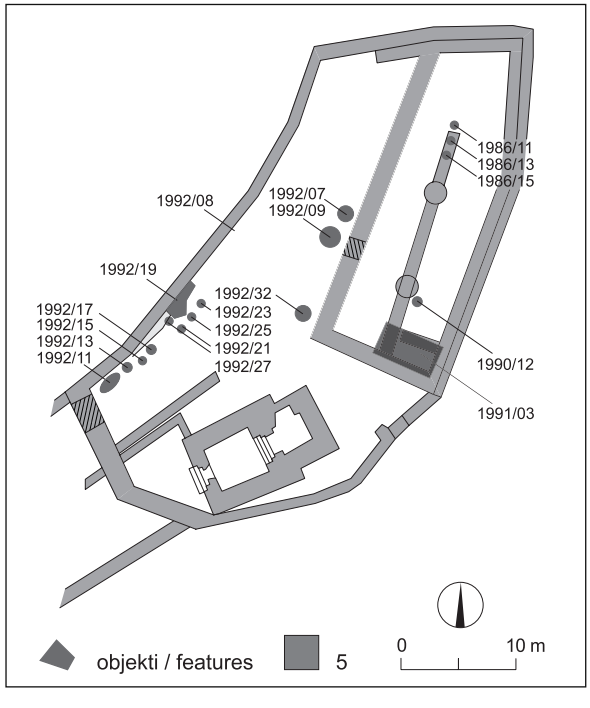
In a direct correlation to the paved level was the previously mentioned thin layer of dark brown soil (*SU 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*) that was formed by the settling of mud and dirt gathered on the pavement. The thick burnt layer (*SU 1986/05, 1991/07, 1992/0*), which is the remnant of the fire that destroyed the castle is also correlated.

Most of the pits in the inner bailey belong to phase 4b. Ten were discovered along the western fortification walls and four along the second palatium, all of which date to the same period.

The pits along the western fortification walls (*fig. 4.25* and *fig.4.26*) can be divided into two groups as regards their size. The largest (*SU 1992/19*) is not truly a dug out hole, for at that spot the earth caved in. During phase 4b this was fixed, which is why the nearby small *wall 13* was built. Such cave-ins were quite common in High Medieval castles built on cliffs. The builders placed the wall as close as possible to the edge of the rock ledge and did their best to smoothen the joint between the wall and the bedrock. With this the wall gained in strength when resisting attacks, however the negative consequence were these cave-ins (cf. Stopar 2006, 57).



Sl. 4.25: Mali grad, grajsko jedro. Prostor med grajsko kapelo in zahodnim obzidjem, pogled proti zahodu. Puščice kažejo vkope faze 4b (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.25: Mali grad, castle core. The area between the castle chapel and the western fortification wall, view towards the west. The arrows show the cuts from phase 4b (documentation ZVKDS OE Kranj, photograph by M. Sagadin).



Sl. 4.26: Mali grad, grajsko jedro. Položaj vkopov faze 4b.
Fig. 4.26: Mali grad, castle core. The position of the cuts in phase 4b.

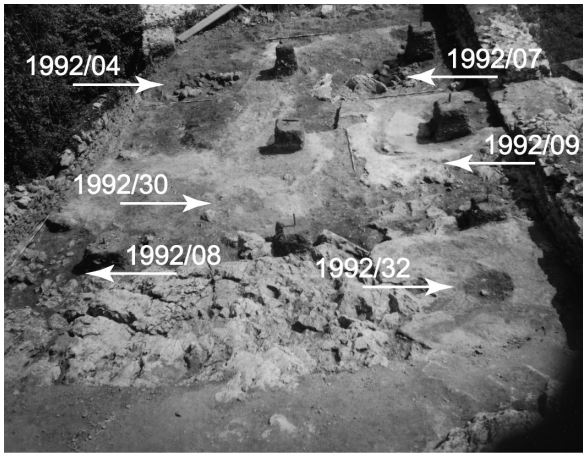
Drugi veliki vkopi so dokumentirani le na fotografiji. Ovalna jama velikosti približno 2 krat 1 meter (*SE 1992/11*) in okrogli jami premera približno 0,8 metra (*SE 1992/13* in *1992/17*) so bile vkopane tik ob zidu. Prva okrogla jama je bila vkopana skozi estrih (*SE 1986/10 ...*), druga ob *zidu 13*. Vkopa sta torej nastala ob koncu faze 4b.

The other larger pits are documented only on photographs. The oval pit measuring approximately 2 metres by 1 metre (*SU 1992/11*) and the circular pits with a diameter of approximately 0.8 meters (*SU 1992/13 in 1992/17*) were made right next to the wall. The first circular pit was dug through the pavement (*SU 1986/10...*), the other alongside *wall 13*. The pits were therefore clearly dug at the end of phase 4b.

Taking into account the shape, size and dispersion of the circular pits with a diameter of less than 0.5 metres (*SU 1992/15 and 1992/21 to 28*), we have concluded that they were postholes (cf. Barker 1977, 83–87). The group close to the cave-in (*SU 1992/21 to 28*) forms two sides of a rectangle, while the third side is represented by the wall. One of the postholes (*SU 1992/21*) is partially covered by *wall 13* (*fig. 4.25*), which clearly indicates that the pole stopped serving its original purpose during phase 4b.

Taking everything into account this was an elongated building that ran parallel to the fortification wall. However, it is impossible to determine how far north and south did it stretch (left and right on *fig. 4.25*). The nearby pit (*SU 1992/15*) which is the same in size and shape and has the same colour filling is a part of the same structure. It is possible that the structure continued towards the south. It is most likely that this was a wooden longitudinal building that ran along the wall; this is confirmed by the spread of the charred clay remains that surround the holes (*SU 1992/21 to 28*).

The second group of pits within the castle courtyard consists of the ones found in front of the second palatium (*fig. 4.26* and *fig. 4.27*).



Sl. 4.27: Mali grad, grajsko jedro. Prostor med drugim palacijem in zahodnim obzidjem, pogled proti severu. Puščice kažejo vkope faze 4b in objekt ter vkop faze 3 (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.27: Mali grad, castle core. The space between the second palatium and the western fortification wall, view towards the north. The arrows point towards the pits from phase 4b and the structure and the hole from phase 3 (documentation ZVKDS OE Kranj, photograph by M. Sagadin).

Okrogle vkope s premerom, manjšim od 0,5 metra (*SE 1992/15* in *1992/21* do *28*), glede na obliko, velikost in razporeditev interpretiramo kot jame za kole (prim. Barker 1977, 83–87). Skupina ob podoru (*SE 1992/21* do *28*) tvori dve stranici pravokotnika, pri čemer predstavlja tretjo stranico obzidje. Jamo za kol (*SE 1992/21*) delno prekriva *zid 13* (*sl. 4.26*). To pomeni, da kol že v času faze 4b ni več služil prvotnemu namenu.

Po vsem sodeč gre za podolgovat objekt, ki je vzporeden z obzidjem. Ne vemo pa, kako daleč ob zidu je segal proti severu in jugu (levo in desno na *sl. 4.25*). Prav lahko je tudi osamljeni vkop (*SE 1992/15*), enake





Sl. 4.29: Mali grad, grajsko jedro. Vkop (*SE 1992/12*) faze 4b znotraj sočasnega drugega palacija, pogled proti severu. Puščica kaže na streme (*t. 3:* 5; dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.29: Mali grad, castle core. Pit (*SU 1992/12*) from phase 4b within the second palatium, view towards the north. The arrow points at the stirrup (*t. 3:* 5; documentation ZVKDS OE Kranj, photograph by M. Sagadin).

The round pit with a diameter of approximately 1 metre (*SU 1992/32*; *fig. 4.28*) was dug through the pavement (*SU 1986/10...*) and therefore originates from phase 4b. There is no other documentation of this pit except for the photographs, which makes it impossible to offer an interpretation.

The position of the shallow pit lined with mortar and filled with shingle (*SU 1992/09*; *fig. 4.28*) is unusual, for it is placed just in front of the contemporary entrance into the second palatium. As it can be seen from the photograph and a number of descriptions, the top of the hollow was also paved with mortar (*SU 1986/10...*), which underwent repairs on a number of occasions. Taking into account the filling, the position and the relief of the courtyard it can be concluded that the structure served as a drain for rainwater. The position immediately in front of the entrance leads us to believe that the inhabitants had problems with rainwater flooding the ground floor of the second palatium.

North of this hollow lies a ditch with loose black filling that included larger quantities of bones, charcoal

Sl. 4.28: Mali grad, jama (*SE 1992/08*) faze 4b ob zahodnem obzidju, pogled proti severu (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.28: Mali grad, pit (*SU 1992/08*) from phase 4b along the western fortification wall, view towards the north (documentation ZVKDS OE Kranj, photograph by M. Sagadin).



Sl. 4.30: Mali grad, izkopavanje 1990. Ostanki zoglenelega stropa v južnem delu drugega palacija, pogled proti severu (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.30: Mali grad, 1990 excavation. The remains of the charred ceiling in the southern part of the second palatium, view towards the north (documentation ZVKDS OE Kranj, photograph by M. Sagadin).

velikosti, oblike in barve polnila kot ostali, del istega objekta. Tudi nadaljevanja proti jugu ne moremo izključiti. Najverjetnejši interpretaciji sta, da gre za manjšo leseno stavbo ali podolgovat objekt, ki se razteza ob zidu, kar potrjuje razprostranjenost ostankov ožgane gline na prostoru vkopov (*SE 1992/21* do *28*).

Drugi sklop vkopov na grajskem dvorišču predstavljajo jame na prostoru pred drugim palacijem (*sl. 4.26* in *sl. 4.27*).

Okrogla jama s premerom približno 1 meter (*SE 1992/32*; *sl. 4.27*) je bila vkopana skozi estrih (*SE 1986/10* ...) in je torej nastala v času faze 4b. V preostali dokumentaciji jama ni omenjena, zato je ni moč interpretirati.

Položaj kotanje, obložene z estrihom in napolnjene s prodom (*SE 1992/09*; *sl. 4.27*), je nenavaden, saj je postavljena tik pred sočasni vhod v palacij. Kot je razvidno iz fotografije in več opisov, je vrh jame pokrival estrih (*SE 1986/10* ...), ki je bil tudi večkrat popravljan. Glede na polnilo, položaj in relief dvorišča sklepamo, da je objekt služil odvajanju padavinske vode. Položaj tik pred vhodom nas navede na misel, da so imeli prebivalci probleme z vdiranjem padavinske vode skozi vhod v pritličje palacija.

Severno od te kotanje leži jama, katere prhko polnilo črne barve je vsebovalo veliko kosti in koščkov oglja ter večje kamne (*SE 1992/07*; *sl. 4.27*). Po velikosti in opisu polnila sodeč gre za t. i. odpadno jamo.

Tik ob obzidju je bil dokumentiran večji vkop z močno ožganimi robovi (*SE 1992/08*; *sl. 4.28*). Iz opisa je razvidno, da jama v času uporabe grajskega dvorišča ni bila zapolnjena. Gre torej za vkop, v katerem so se odvijale dejavnosti, povezane z ognjem.

pieces and larger stones (*SU 1992/07*). Taking its size and description into account this was most likely a refuse pit.

A large pit with strongly burnt edges (*SU 1992/08*; *fig. 4.28*) was documented next to the western fortification wall. From the description it can be noticed that the pit was not filled-in during the period in which the castle bailey was used. The only thing that we can safely conclude is that this was a structure in which activities connected to fire took place.

The last group is represented by stratigraphic units from phase 4b that were discovered within the second palatium. The pit (*SU 1992/12*) that was filled with shingle is interesting. The filling includes multiple pottery fragments and an iron stirrup (*fig. 4.29*).

In the photographic documentation three pits were recognised (*SU 1986/11-16*) in the extension of *wall 4* (the wall that divided the second palatium lengthwise). Taking into account the shape and positioning these are clearly postholes that cut through *wall 4*. The remains of this can be recognised on photographs as well as on the ground plan (*fig. 4.26*). The dark filling discovered in these postholes seems to include charcoal. If this is the case we could conclude that the wooden poles burnt in the fire. Because they are the youngest stratigraphic units from phase 4b, such an assumption is extremely likely. The burnt clay documented to the west of these holes shows that this was a timber framed wall that substituted *wall 4*. During the fire the wall collapsed towards the western wall of the second palatium.

Almost the entire area of the second palatium was covered by a layer of charred remains - up to 0.3 metres

Zadnjo skupino predstavljajo stratigrafske enote faze 4b znotraj sočasnega drugega palacija. Zanimiva je jama (*SE 1992/12*), ki je bila zasuta s kamenjem. V polnilu je bilo tudi mnogo lončenine in železno streme (*sl. 4.29*).

V podaljšku *zidu 4*, ki je razdelil drugi palacij po dolžini, smo v fotografski dokumentaciji prepoznali tri vkope (*SE 1986/11* do *16*). Po obliki in legi v prostoru sodeč gre za jame za kole, ki so prebile *zid 4*. Ostanke tega je moč prepoznati tako na fotografijah kot tudi na načrtu (*sl. 4.26*). Povsem temno polnilo teh jam po videzu sodeč vsebuje tudi oglje. V tem primeru bi lahko sklepali, da so leseni koli zgoreli v požaru. Ker gre za najmlajše stratigrafske enote faze 4b, je takšna domneva zelo verjetna. Ožgana ilovica, dokumentirana zahodno od teh jam, priča, da gre za steno, zgrajeno v tehniki predalčenja, ki je nadomestila *zid 4*. Stena se je podrla v požaru proti zahodni steni drugega palacija.

Skoraj celoten prostor drugega palacija je prekrivala do 0,3 metra debela plast žganine (*SE 1986/05, 1991/07*). Na nekaterih mestih je bilo moč prepoznati posamezne tramove v prvotni legi (*sl. 4.30*) in ostanke lesene konstrukcije, ki sta jo nosila *zidova 5 in 6*, kamnita podstavka na sredini drugega palacija.

Na podstavka sta bila postavljena lesena stebra, ki sta nosila vzdolžen hrastov tram približno kvadratnega preseka s stranicami 0,3 metra. Nanj so bili prečno položeni hrastovi stropniki tretjino manjšega kvadratnega preseka. Čez to konstrukcijo so bile položene jelove deske (Sagadin 1997a, 107). Gre za strop pritličja oziroma pod prvega nadstropja.

4.2.6. POZNOSREDNJEVEŠKA FAZA 4C

Faza 4c je v obstoječi dokumentaciji zelo slabo predstavljena. Gre za ruševinske plasti (*SE 1991/08*), ki so nastajale po požaru, uničujočem za grad, in pred zgodnjenovoveškimi gradbenimi dejavnostmi. Ruševine so bile med izkopavanji odstranjene enotno, tako da razen na ozkem pasu pred vhodom v malograjsko kapelo ni mogoče ločevati srednjeveških (*SE 1994/04–05*) od novoveških (*SE 1994/06*). Slednje seveda sodijo v fazo 5.

4.2.7. NOVOVEŠKA FAZA 5

Gradbene dejavnosti na prostoru Malega gradu po ruševinski fazi 4c so omejene na grajsko kapelo in zahodni del grajskega hriba.

Malograjsko kapelo obdaja *zid 9*, grajen iz lomljencev. Glede na stike z ostalimi zidovi ni mogoče opredeliti njegove starosti, toda na tem zidu temelji zakristija z značilnim gotskim, torej poznosrednjeveškim portalom (Sagadin 1997b, 31). Najstarejša odkrita zunanja oblika, na kateri temelji trenutna podoba, je poslikava v obliki

thick in some places (*SU 1986/05, 1991/07*). In some places individual beams could be recognised in their original position (*fig. 4.30*) as could the remains of the wooden construction that was supported by the stone bases in the centre of the second palatium (walls *5 and 6*). The stone bases supported the two wooden columns which in turn carried the longitudinal oak beam with a roughly square cross section measuring 0.3 metres. On top of this oak beam smaller square cross-section beams (measuring one third of the oak beam) were placed transversally across. Adler tree planks were placed on top of this entire construction (Sagadin 1997, 107). This was the ceiling of the ground floor and the floor of the first floor.

4.2.6. LATE MEDIEVAL PHASE 4C

Phase 4c is poorly represented in the existing documentation. This phase consists of ruins (*SU 1991/08*) that formed after the fire destroyed the castle and prior to the early post-medieval building activities. During the excavations the ruins were removed at once, thus the medieval ruins (*SU 1994/04–05*) can not be separated from the post-medieval ruins (*SU 1994/06*) - except in a narrow belt in front of the chapel. The latter of course belongs to phase 5.

4.2.7. THE POST-MEDIEVAL PHASE 5

Following the devastating fire at the end of phase 4b the building activities on the Mali grad hill were limited to the castle chapel and the western side of the hill.

The chapel is surrounded by the roughly worked stone *wall 9*. The age of the wall can not be determined by looking at the joints with other walls, however the sacristy with the typical Gothic, i.e. late Medieval portal (Sagadin 1997b, 31) lies on top of it. The oldest discovered exterior form upon which the current reconstruction is based, is one upon which quoins were painted (*fig. 4.20*). Such ornamentation of the building exterior is typical for the early Post-medieval period (see above). The oldest discovered painting within the chapel belongs to the mid 15th century (Sagadin 1997b, 33–39).

Wall 19, a part of the town fortification tower, built in the quoins technique, was erected on top of *wall 18* - the Romanesque tower (*fig. 4.31*; Sagadin 1997a, 106 and sl. 1). A part of the original fortification *wall 17c* also seems to have remained in use. The transversal *wall 24* and a number of other structures - the remains of which are represented by *walls 22, 23* and *24* - lean upon it. Another smaller structure, *wall 21*, also leans upon the transversal wall. These walls are remains of buildings that were depicted by the sketcher of Valvazor's veduta (*fig. 3.1*). This is also the image that was most probably described by the place name Mali grad (Small castle). *Walls 21–24* were built



Sl. 4.31: Mali grad, zahodni stolp mestne utrdbe, severozahodni vogal pred rekonstrukcijo (dokumentacija ZVKDS, OE Kranj, fotografija M. Sagadin).
Fig. 4.31: Mali grad, western tower of the town fortification; northwest corner prior to the reconstruction (documentation ZVKDS OE Kranj, photograph by M. Sagadin).

vogalnih kvadrov (*sl. 4.20*). Takšno krašenje zunanje podobe stavb je značilno za zgodnji novi vek (glej zgoraj). Najstarejša odkrita notranja poslikava kapele sodi v sredino 15. stoletja (Sagadin 1997b, 33–39).

Na temeljih romanskega bivalnega stolpa, *zid 18*, je bil postavljen stolp mestne utrdbe, *zid 19*, zidan v tehniki vogalnih kvadrov (*sl. 4.31*; Sagadin 1997a, 106 in sl. 1). Tudi del prvotnega obzidja, *zid 17c*, je, kot kaže, ostal v uporabi. Nanj se naslanjajo prečni *zid 24* in več objektov, katerih ostanke predstavljajo *zidovi 22, 23* in *24*. Na prečni zid se naslanja še en manjši objekt, *zid 21*. Našteti zidovi so ostanki stavb, ki jih je upodobil risar na Valvazorjevi veduti (*sl. 3.1*). To je tudi stanje, ki ga najverjetneje opisuje ledinsko ime Mali grad. *Zidovi 21–24* so zidani iz enakih lomljencev kot plašč grajske kapele, *zid 9*, ki je nastal verjetno še v 15. stoletju (glej zgoraj). Tudi na podlagi pisnih virov (glej poglavje 2.5) lahko gradnjo objektov faze 5 umestimo v zadnjo četrtino 15. stoletja.

from the same roughly worked stone as the outer coat of the castle chapel (*wall 9*, which most probably originates from the 15th century, see above). Using written sources (see chapter 2.5) the buildings from phase 5 can be placed into the last quarter of the 15th century.

4.2.8. RAZPRAVA

Na podlagi zidov faze 4a in lege na skalni polici lahko Mali grad opišemo kot skalni grad (nem. *Felsenburg*), ki stoji na skalni steni (nem. *Felswand*). Pojem najlažje opredelimo s skico (*sl. 4.32*). Na območju visokosrednjeveškega Svetega cesarstva, v katerega je sodil Mali grad, so takšni gradovi v goratih pokrajinah običajni (Krahe 2002a, 88).

Mali grad kaže vse temeljne značilnosti skalnih gradov: razmeroma šibko obzidje poteka po robu skalne police, posledica tega je nepravilen tloris. Vendar med skalnimi gradovi kamniški izstopa po nadpovprečni velikosti. Skalni gradovi so najpogosteje t. i. mali oziroma nepopolni gradovi ali samostojni stolpi. Kot primer skalnega gradu s podobno stavbno razporeditvijo kot jo ima Mali grad v fazi 4a, lahko navedemo grad Stein v Labotski dolini (*Stein im Lavanttal*; *sl. 4.32*; Krahe 2002a, 24 in 87–90). Podobni so tudi Stari grad v Celju in gradovi Podsreda, Žovnek in Lindek v začetni fazi svojega razvoja (Sagadin 1997a, 108; glej tam navedeno literaturo), ki pa niso izraziti skalni gradovi.

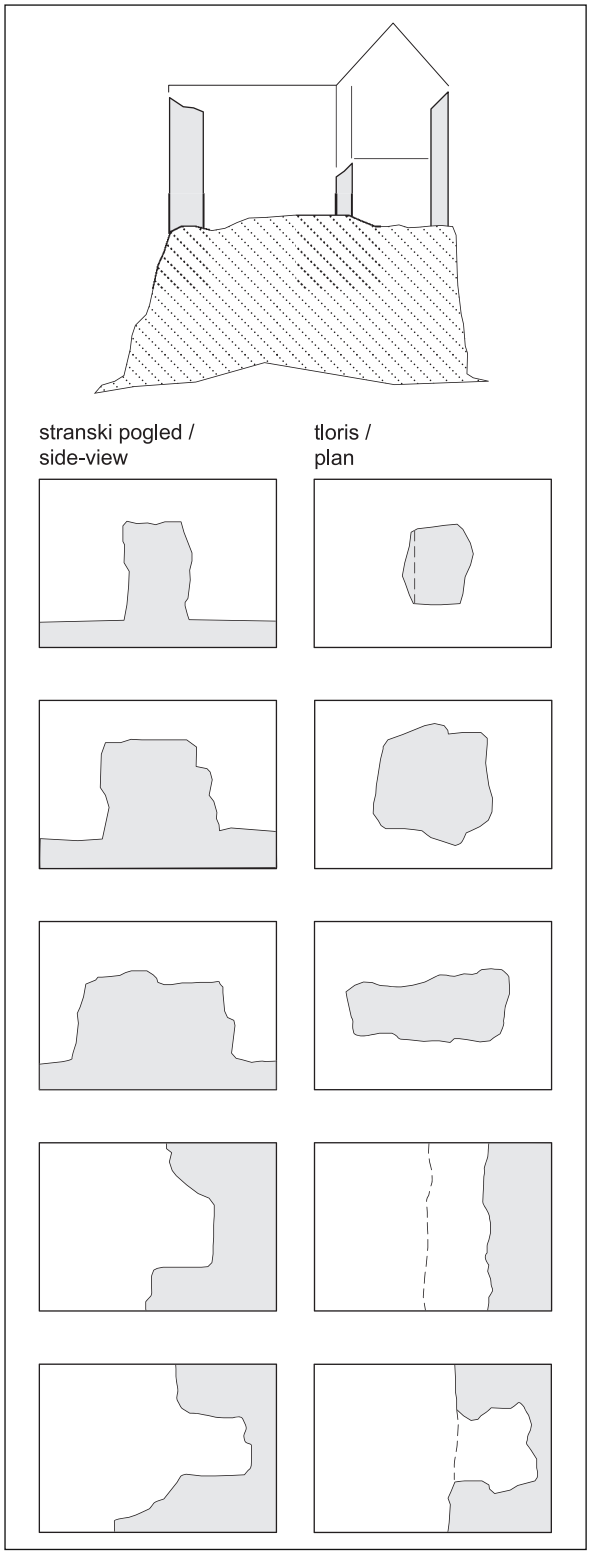
Skalni gradovi so v visokosrednjeveškem Svetem cesarstvu pogosteje nastajali v 11. in 12. stoletju. Kar polovica gradov tega časa je skalnih, od konca 13. stoletja pa so jih gradili le izjemoma. Priljubljenost dokazuje tudi podatek, da je bil le majhen delež skalnih gradov uničen ali opuščen že v srednjem veku (Krahe 2002a, 89).

4.2.8. DISCUSSION

On the basis of the walls from phase 4a and the castle position we can describe Mali grad as a rock-castle (German *Felsenburg*) that stands on a rock ledge (German *Felswand*). This classification is easiest shown in a picture (*fig. 4.32*). In the area of the High Medieval Holy Roman Empire (to which Mali grad belonged) such castles were common in mountainous regions (Krahe 2002a, 88).

Mali grad shows all of the basic characteristics of rock-castles: a relatively weak fortification wall runs along the rock ledge which results in an irregular ground plan. However, the Kamnik castle is above average size for a rock-castle. Most rock castles are small or incomplete castles or solitary towers. The castle Stein in *Lavanttal* (*fig. 4.32*; Krahe 2002a, 24 and 87–90) had a similar layout to Mali grad in phase 4a. Similar were also Stari grad in Celje and the castles Podsreda, Žovnek and Lindek in the first phases of their development (Sagadin 1997a, 108; see cited literature), however, none of them was an explicit rock-castle.

In the High Medieval Holy Roman Empire rock-castles were most common by built in the 11th and 12th century. Over half of the castles from this period were rock-castles, while from the end of the 13th century onwards such castles were extremely rare. Their popularity can also be deducted from the fact that only a small percentage of rock-castles were destroyed or abandoned already during the Middle Ages (Krahe 2002a, 89).



Sl. 4.32: Zgoraj prerez skalnega gradu Stein v Labotski dolini (*Stein im Lavanttal*), ki ima podobno stavbno razporeditev kot Mali grad (prirejeno po Krahe 2002a, Abb. 158). Spodaj prerezi (levo) in tlorisi (desno) tipične geomorfološke podlage skalnih gradov (po Krahe 2002a, Abb. 157; tipi skalne osnove od zgoraj navzdol: stolp, blok, stena, previs, jama).
Fig. 4.32: Above: a cross section of the rock castle Stein in *Lavanttal*, which has a similar ground plan to Mali grad (adopted from Krahe 2002a, Abb. 158). Bellow: cross sections (left) and ground plans (right) of a typical geomorphic base of rock castles (according to Krahe 2002a, Abb. 157; types of rock base: tower, block, wall, ledge, cave).

Mali grad faze 4a, torej grajsko jedro v fazi 4b, sodi s površino nekaj nad 500 kvadratnih metrov med srednje velike gradove. Enako bi lahko rekli za površino palacija, ki znaša 150 kvadratnih metrov (Krahe 2002a, 77). Toda naj spomnimo, da je le 16 odstotkov skalnih gradov t. i. popolnih, z vsemi ključnimi rezidenčnimi in utrdbenimi elementi (Krahe 2002a, 89), kakršen je bil Mali grad

With its size slightly exceeding 500 square metres, phase 4a Mali grad (i.e. the castle core from phase 4b) belongs amongst medium size castles. The same could be said for the palatium which measured 150 square metres (Krahe 2002a, 77). However, one should keep in mind that only 16 percent of all rock castles were so-called full castles, with all key residential and fortification elements (Krahe 2002a, 89). As this could be said for Mali grad already in phase 4a it seems that its size and layout emphasised its importance already in this period.

Mali grad was an exceptional castle already in phase 4a. Castles were rare in the 11th century, for at the time only 2 percent of all known stone castles were built (Krahe 2002a, 15). Even in the 12th century only the highest nobility could afford to build castles. In south Germany all castles built prior to 1120, and 97 percent of the castles built prior to 1200 belonged to the highest gentry (Antonow 1993, Abb. 6).

As regards the area the castle from phase 4b (in this phase it was enlarged with the outer bailey and tower) is classified as a large castle. In the Holy Roman Empire less than one third of large castles covered an area between 1000 and 2500 square metres (Krahe 2002, 77). Mali grad is most certainly one of the largest rock-castles. The area covered by the second palatium (over 300 square metres) was also above average. Palatiums could cover areas from anywhere between less than 50 metres to over 300 square metres (Krahe 2002a, 37–38).

Based on the architectural remains the number of floors that the two palatiums at Mali grad had can be estimated. In most cases the castle palatiums were two or three floors high (Krahe 2002a, 37–38). The thickness of the wall on the ground floor can provide an answer. The wall on the ground floor of the first palatium measures approximately 1 metre while the one in the second palatium is approximately 1.8 metres thick. The thickness of the second palatium wall is sufficient to support a three floor building, which is not the case with the first palatium (if we suppose that the entire construction was made of stone). However, it is possible that the top floor was not built in stone (see Krahe 2002a, 63–64).

The understanding of the building and architectural elements enables the reconstruction of the building

že v fazi 4a. Zdi se, da velikost in ureditev že v fazi 4a poudarjata pomembnost tega gradu.

Mali grad je bil v fazi 4a izjemen objekt že sam po sebi. Gradovi so bili v 11. stoletju nasploh zelo redki, saj sta bila takrat zgrajena le 2 odstotka danes znanih kamnitih gradov na območju visokosrednjeveškega Svetega cesarstva (Krahe 2002a, 15). Še v 12. stoletju je gradove gradilo predvsem visoko plemstvo. V južni Nemčiji so tako vsi gradovi, nastali pred letom 1120, in kar 97 odstotkov gradov, nastalih pred letom 1200, pripadali visokemu plemstvu (Antonow 1993, Abb. 6).

Grad faze 4b sodi glede na površino, v tej fazi povečano s predgradjem in stolpom, med velike gradove. Velikih gradov s površino 1.000–2.500 kvadratnih metrov, kot jih je opredelil Krahe (2002a, 77), je bilo v Svetem cesarstvu manj kot tretjina. Vsekakor sodi Mali grad med največje skalne gradove. Nadpovprečna je tudi površina drugega palacija, več kot 300 kvadratnih metrov. Površine palacijev se sicer gibljejo od manj kot 50 do krepko čez 300 kvadratnih metrov (Krahe 2002a, 37–38).

O nadstropjih obeh palacijev na Malem gradu lahko na podlagi arhitekturnih ostankov le ugibamo. Grajski palaciji so bili najpogosteje dvo- ali trinadstropni (Krahe 2002a, 37–38). Morda ponuja odgovor debelina zidov v pritličju, ki znaša približno 1 meter pri prvem palaciju in približno 1,8 metra pri drugem. Debelina zidu drugega palacija povsem zadošča za gradnjo trinadstropnega, debelina prvega palacija pa ob gradnji izključno iz kamna komajda. Možna pa bi bila nekamnita nadgradnja (prim. Krahe 2002a, 63–64).

Razumevanje stavbnih elementov in arhitekturnih členov omogoča rekonstrukcijo stavbnega razvoja Malega gradu (prim. Sagadin 1997a, sl. 15; Stopar 2006, 52). Osnovni elementi tega niso sporni, podrobnosti in natančne umestitve v čas pa morda ne bomo nikoli mogli v celoti razumeti. Grad sta v fazi 4a, s palacijem ob severni steni, varovala predvsem obrambni jarek in odebeljen plaščni *zid 1c*. Morda je imel grad tedaj v jugozahodnem delu še trdno hišo, na kar kaže *zid 14*. Kapela, o kateri priča timpanon s konca 11. ali začetka 12. stoletja, bi bila lahko bodisi v tej trdni hiši bodisi v manjši samostojni zgradbi. V slednjem primeru bi ta lahko stala le na istem mestu kot poznejša dvojna malograjska kapela, katere izgradnja bi prekrila vse sledove.

Vhod v grad je bil v fazi 4a speljan čez obrambni jarek po skalnem robu ob južni steni. V naslednji fazi 4b je bil grajski kompleks razširjen na celoten grič. Glavno težo obrambnih nalog je prevzel novozgrajeni stolp na zahodnem robu grajskega griča, sveten in posveten reprezentančni prostor je postala dvojna grajska kapela. Prvotni obrambni jarek in vhod so zasuli oziroma zazidali.

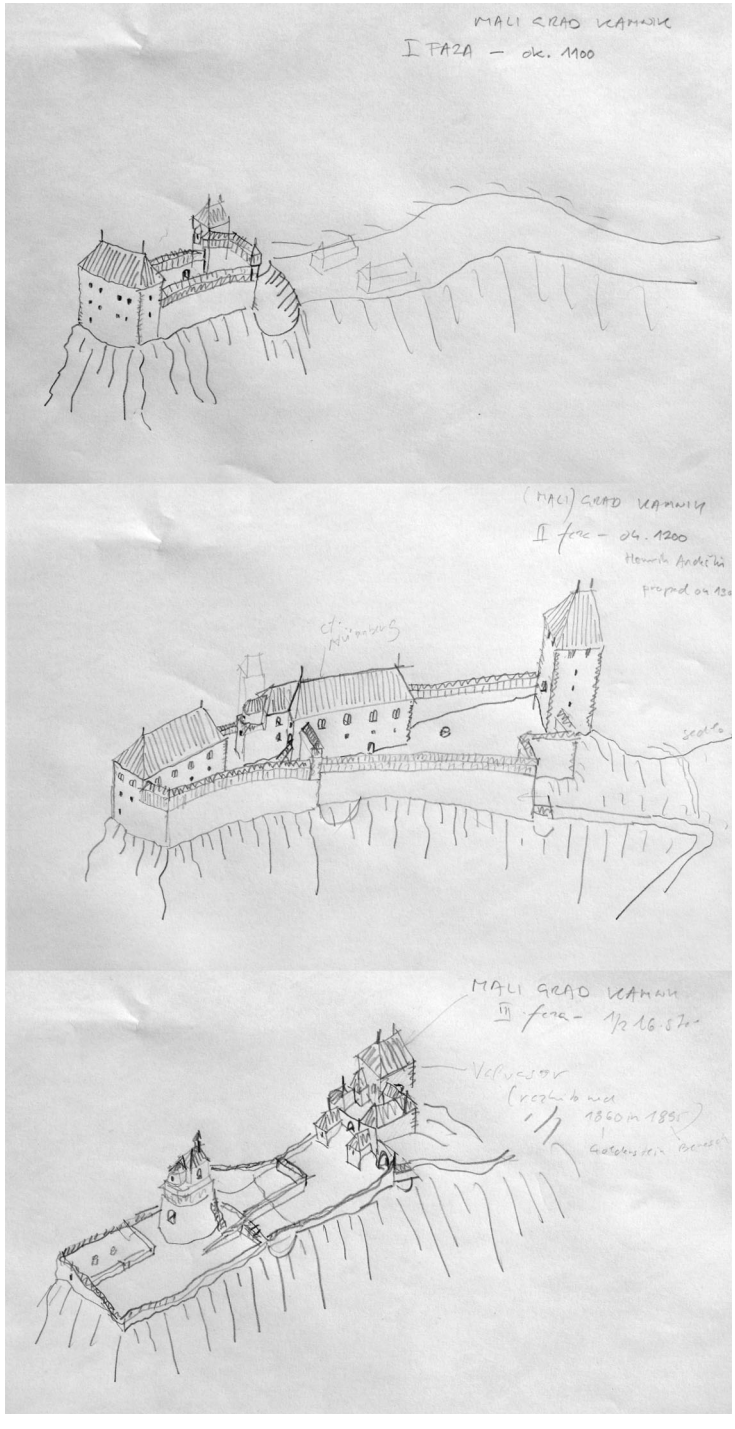
Znanim interpretacijam (*sl. 4.22*) ob bok lahko na podlagi nekaterih elementov postavimo razlago, ki v fazi 4b predvideva dva palacija (*sl. 4.33*). Obstoju dodatnega palacija v fazi 4b v prid pričajo doslej nepojasnjena *zidova 14* in *20* (*sl. 4.22*) ter lega in oblika predvsem zgornjega

development at Mali grad (see Sagadin 1997a, sl. 15; Stopar 2006, 52). The main elements are undisputable. However, the details and the precise dating may never be completely understood. The castle in phase **4a**, with the palatium along the northern wall, was protected by the moat and the curtain *wall 1c*. *Wall 14* indicates that the castle might have had a stone building in the southwestern part. It is possible that the chapel - that included the late 11th or early 12th century tympanum – was located in this stone building or in a smaller independent building. If the latter was the case, it had to be located in the same area as the later chapel, the construction of which would have covered all of its traces. In phase 4a the entrance to the castle led across the moat and along the rock ledge that ran along the south wall.

During the following phase **4b** the castle buildings spread across the entire hill. The main burden of the defensive tasks was taken over by the newly erected tower on the western edge of the castle hill, while the double castle chapel became the worldly and secular representative building. The original moat and entrance were filled in and built up.

On the basis of the above data we can place an additional interpretation alongside the existing ones (*fig. 4.22*). The Mali grad castle could have had two palatiums in phase 4b (*fig. 4.33*). This hypothesis is supported by the so far unexplained *walls 14* and *20* (*fig. 4.22*) and the position and shape of the upper entrance into the chapel. The Nürnberg castle, for example, is similar. The eventual additional palatium would therefore be hidden from modern researchers under the ruins of the central part of the castle which has so far not been excavated.

The situation on the Mali grad hill in phase **5** is not disputable. The best data on this phase remains the previously mentioned veduta in Valvazor's book (*fig. 3.1*). Even after our analysis we know nothing as regards the building development between phase 4b and the totally new appearance in phase 5.



Sl. 4.33: Mali grad, stavbni razvoj. Interpretacija z dvema palacijema, delovna skica (interpretacija in risba Igor Sapač).
Fig. 4.33: Mali grad, building development. Interpretation with two palatiums, sketch (interpretation and drawing by Igor Sapač).

vhoda v kapelo. Podoben je grad v Nürnbergu. Morebitni dodatni palacij bi se potemtakem skrival pod ruševinami osrednjega dela gradu, ki še ni bil arheološko izkopan.

Stanje na malograjskem griču v fazi 5 prav tako ni sporno. Še vedno najboljši podatek o tej fazi predstavlja večkrat omenjena Valvazorjeva veduta (*sl. 3.1*). O stavbnem razvoju med "razcvetom" v fazi 4b in povsem drugačno sliko v fazi 5 pa tudi v zgornji analizi ne izvemo ničesar.

5. KOVINSKI PREDMETI

5.1. KUHINJSKA OPREMA, KRESILO, NOŽI IN BRITEV

Med malograjskimi drobnimi najdbami jih nekaj lahko pripišemo kuhinjski opremi. Zelo pomemben je *mehanizem za obešanje kotla*. Ti so bili v srednjem veku običajno tridelni, sestavljeni iz zgornjega (enojni ali dvojni kavelj), srednjega (veriga) in spodnjega dela (enojni kavelj s ploščato kovanim ukrivljenim delom). Zgornji del je bil pritrjen na napo, običajno obešen na drog. Na Malem gradu sta ohranjena zgornji in srednji del, kavelj in veriga. Kavelj zgornjega dela mehanizma (*t. 1: 2*) je dvojni, a je bil en zavihek odlomljen. Očitno je ostal v uporabi, saj je bil najden na mestu uporabe. Šlo je torej za enostaven mehanizem, kakršnega poznamo s srednjeveških upodobitev (*sl. 5.1*). Ohranjeni kavelj je bil z ukrivljenim delom obešen na drog nape, na za to prilagojeno ušesce pa je bila pritrjena veriga (glej spodaj). Uporabe prvotnega dvojnega kavlja ne znamo razložiti. Tudi tega bi bilo sicer mogoče uporabiti na enak način, a drugi ukrivljeni del ne bi bil uporaben. Glede na obliko ušesca, prilagojeno verižnim členkom, bi bilo mogoče, da je bil zgornji del mehanizma dvodelen, kakršne poznamo iz antike (npr. Božič 2005, Abb. 58: 3). V tem primeru bi oba kavlja zgornjega dela spajala veriga, enaka ohranjeni, dvojni kavelj pa bi bil spodnji kavelj zgornjega dela mehanizma. Drugi ukrivljen del bi tako služil za krajšanje verige. Vendar takšnih mehanizmov iz srednjega veka v Sloveniji ne poznamo (prim. Horvat et al. 1995, 3.1.37).

Srednji del mehanizma predstavlja železna veriga z okroglimi členki, s premerom okoli 9 centimetrov (*t. 1: 1*). Ti na eni strani zagotavljajo stabilnost, na drugi pa je njihova velikost prilagojena natančnosti nameščanja kotla. S pretikanjem vmesnega kavlja, kakršnega prikazuje tudi slika (*sl. 5.2*), je bilo mogoče spuščati ali dvigovati kotel po posameznih členkih in s tem uravnavati temperaturo. Podoben je mehanizem za obešanje kotla s Kranclja pri Škofji Loki, katerega členki so nekoliko manjši in kvadratnega prereza (Horvat et al. 1995, 3.1.37).

Kot kažejo nekatere slovenske zakladne najdbe, so bili zelo podobni mehanizmi sestavni del opreme

5. METAL OBJECTS

5.1. KITCHEN UTENSILS, TINDER, KNIVES AND RAZOR

Two small finds from Mali grad could be categorised as kitchen utensils, both a part of the *mechanism for hanging the cauldron*. In the Middle Ages these mechanisms usually consisted of three parts: the upper (single or double hook), central (chain) and lower part (single flat forged hook). The upper part was attached to the hood of the fireplace, which usually hung from a rod. At Mali grad the upper and central part (the hook and the chain) are preserved. The upper hook (*t. 1: 2*) used to be a double, but one hook has broken off. Regardless of this it is obvious that the mechanism remained in use, for it was found at the place of use. It was a simple mechanism, such as depicted in medieval times (*fig. 5.1*). The preserved hook hung from the pole that was located under the hood, and the chain was attached to the perforation in the hook that was made especially for this purpose (see below). The use of the original double hook can not be explained. It could have been used in the same way, but in this case the second hook did not add to the functionality. Taking into account the perforation in the hook it could be possible that the upper part of the mechanism was double, as seen in examples from Antiquity (e.g. Božič 2005, Abb. 58: 3). In this case both upper hooks would be joined by a chain (similar to the preserved one), and the double hook would represent the lower hook of the upper part of the mechanism. The second hook could therefore serve as a length regulator on the chain. However, there are no similar examples of such mechanisms in Medieval Slovenia (cf. Horvat et al. 1995, 3.1.37).

The central part of the mechanism consists of an iron chain with circular loops, each of which measures approximately 9 centimetres in diameter (*t. 1: 1*). Apart from providing stability the size and shape of the loops is designed so that the cauldron can be placed at a desired height. By switching the hook in the middle (as shown in *fig. 5.2*), it was possible to lower or rise the cauldron by individual loops, which in turn regulated the temperature. A similar mechanism was found on Krancelj



Sl. 5.1: Zahodni portal trogirske katedrale (Hrvaška), Radovanov portal (ok. l. 1240): alegorična upodobitev meseca februarja (foto E. Lozić).
Fig. 5.1: Western portal of the Trogir cathedral (Croatia), Radovan's portal (approx. 1240): allegorical depiction of the month of February (Photograph by E. Lozić).



Sl. 5.2: Železen lonec, obešen na verigo z okroglimi členki, ki je bil v uporabi do sredine 20. stoletja (Etnografski muzej Tonina hiša, Sv. Peter, Slovenija; foto A. Pleterski, risarska rekonstrukcija T. Korošec).
Fig. 5.2: Metal cauldron, hanging from a chain with circular loops, in use until the mid 20th century (Ethnographic museum Tonina hiša, Sv. Peter, Slovenia; Photograph by A. Pleterski, reconstruction sketch by T. Korošec).

ognjišča že v poznorimskem obdobju (Božič 2005, 356 in Abb. 58: 1). Po drugi strani takšno verigo najdemo v uporabi še sredi 20. stoletja (*sl. 5.2*). Najdbe podobnih mehanizmov iz visokega in poznega srednjega veka so sicer razmeroma redke (npr. Friedrich et al. 1993, Abb. 26; Horvat et al. 1995, 3.1.37; Wild 1997, 102, nr. 77). Krauskopf (2005, 69–70, in Taf. 14: 4) v svoji študiji švicarskih, avstrijskih in nemških gradov ugotavlja, da so bile s takšnimi mehanizmi v 13. stoletju opremljene le kuhinje t. i. grofovskih gradov, v 14. stoletju pa so postali običajna oprema vseh grajskih kuhinj.

Poznosrednjeveške in zgodnjenovoveške upodobitve kuhinj navadno prikazujejo bolj zapletene mehanizme obešanja kotlov nad ognjiščem. Upodobitev tridelnega mehanizma z verigo z okroglimi členki najdemo na primer na Radovanovem portalu trogirske katedrale, izklesanem okoli leta 1240. Pri tem velja poudariti, da je

close to Škofja Loka. However, this one had somewhat smaller loops with a square cross-section. (Horvat et al. 1995, 3.1.37).

On one hand certain finds in Slovenia show that similar mechanisms could be found in fireplaces already during the late Roman period (Božič 2005, 356 and Abb. 58: 1). On the other hand such a chain was found in use as late as the mid 20th century (*fig. 5.2*). Similar mechanisms from the High and Late Medieval period are relatively rare archaeological finds (e.g. Friedrich et al. 1993, Abb. 26; Horvat et al. 1995, 3.1.37; Wild 1997, 102, No. 77). In his study of Swiss, Austrian and German castles, Krauskopf (2005, 69–70, and Taf. 14: 4) concluded that only kitchens in castles owned by counts were equipped with such mechanisms in the 13th century, while in the

za kiparja Radovana značilno realistično upodabljanje, nastalo na podlagi skrbne študije predmetov v naravi (*sl. 5.1*; Stošić 1994, 68–69 in 71).

Oba kovinska predmeta malograjske kuhinje sta torej po namembnosti tipična za srednjeveško kaminsko kuhinjo. Časovno pa gre za predmeta, kakršni so bili v uporabi več stoletij.

Na Malem gradu sta predmeta stratigrafsko opredeljena v fazo 4b.

Naslednji predmet je *lečasto kresilo* na verigi (*t. 1: 3; sl. 5.3*: a). Gre za pogosto srednjeveško obliko kresila, ki je lahko bolj ali manj izbočena. Kresila imajo poleg praktičnega tudi simbolni pomen. Pri južnih Slovanih, na primer, kresilnik simbolizira nebo, kresilo zemljo, ogenj, ki nastane kot rezultat, pa je simbol posrednika med nebom in zemljo (Čausidis 1994, 218–228). Zato ne preseneča, da tovrstna kresila najdemo kot pridatek v grobovih. Domnevno najstarejšo primerjavo smo našli na zgodnjesrednjeveškem gobišču Knin-Plavno (Jelovina 1976, t. 72: 8), vendar kresilo nima zanesljivega konteksta. Prostorsko je najbližja primerjava iz groba mlajšega pokojnika, pokopanega v srednjeveški cerkvi v Fijerogi pri Pomjanu (*sl. 5.3*: c; Knific 1986, sl. 5: 17). Kresilo s srbskega grobišča Trnjane, ki je datirano v 11. in 12. stoletje, ima kot malograjsko ohranjen tudi povezovalen členek. Lečasta kresila občasno najdemo v visokosrednjeveških grobovih na območju Rusije, Bolgarije, Madžarske, Romunije in Poljske (Marjanović-Vujović 1984, 101–102, Tab. 27: 6; glej tam navedeno literaturo) ter na severovzhodnonemških slovanskih grobiščih (Pol-

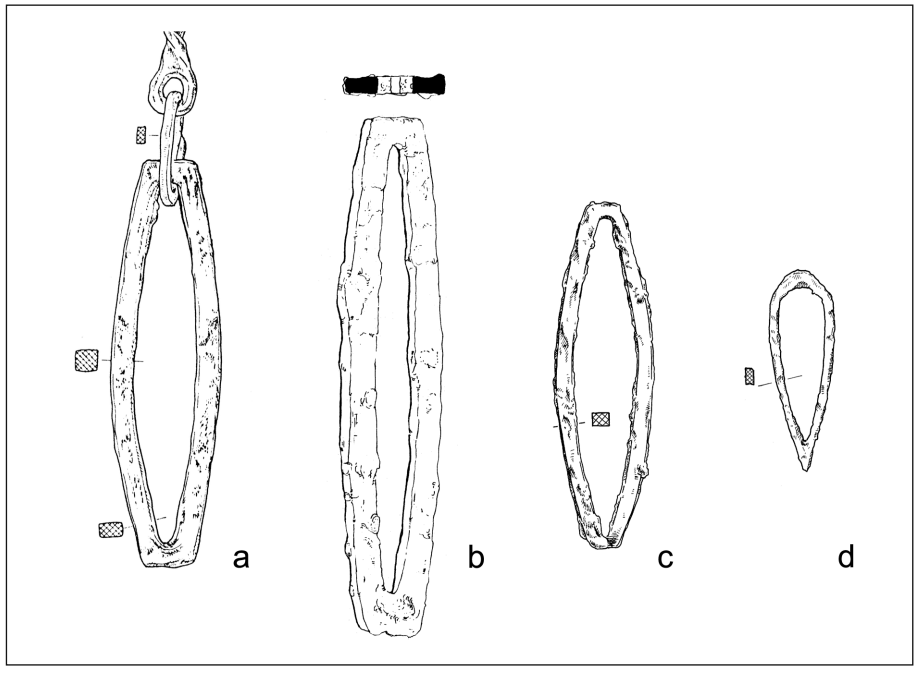
14th century they became the standard equipment in all castle kitchens.

The Late Medieval and Early Post-medieval depictions of kitchens usually show complex mechanisms for hanging cauldrons over fireplaces. A depiction of a three-part mechanism with a chain consisting of circular loops can be found on Radovan's portal (around 1240) in the cathedral of Trogir. At this it should be emphasised that the sculptor Radovan was known for his realistic depiction based on his careful study of objects in nature (*fig. 5.1*; Stošić 1994, 68–69 and 71).

Both metal objects from the Mali grad kitchen are - in their function - typical of a Medieval open fireplace kitchen. However, such objects were used in kitchens over centuries.

The described objects found at Mali grad were stratigraphically placed into phase 4b.

The next object is the biconcave or *lenticular tinder* on a chain (*t. 1: 3; fig. 5.3*: a). This is a common medieval form of tinder that can be of a more or less convex shape. Apart from its practical use tinder also has a symbolic meaning. For instance the South Slavs believed that the flint stone symbolised the sky, the tinder symbolised the Earth and the fire that emerged as a result of the two was the mediator between the sky and the Earth (Čausidis 1994, 218–228). Thus it does not come as a surprise that such tinder is often found in graves. Presumably the oldest analogy for the Mali grad tinder was discovered at the Early Medieval burial site Knin-Plavno (Jelovina 1976, t. 72: 8), however the tinder can not be placed into



Sl. 5.3: Lečasta kresila z (**a**) Malega gradu, (**b**) Otoka pri Dobravi (Šribar 1979, 7: 1) in (**c**) Fijeroge pri Pomjanu (Knific 1986, sl. 5: 17) ter (**d**) kapljičasto kresilo s Kremplnovega hriba nad Hosto pri Škofji Loki.
Sl. 5.3: Lenticular tinder from (**a**) Mali grad, (**b**) Otok near Dobrava (Šribar 1979, 7: 1) and (**c**) Fijeroga near Pomjan (Knific 1986, fig. 5: 17) and (**d**) teardrop tinder from Kremplnov hrib above Hosta near Škofja Loka.

lex 2006, 199–200; glej tam navedeno literaturo). Med naselbinskimi najdbami je prostorsko najbližja Kamniku primerjava z Otoka pri Dobravi, za katerega velja *terminus ante quem* leto 1473 (*sl. 5.3*: b; Šribar 1979, 7: 1).

Najstarejša časovno zanesljivo opredeljena lečasta kresila so bila najdena na vzhodnonemškem grobišču Penkun, ki je umeščeno v čas med 1180 in ok. 1200 (Pollex 2006, Abb. 7: 9, Abb. 8: 18, Abb. 14: 1). Lečasto kresilo z naselbine Düppel blizu Berlina je bilo izgubljeno v prvih dveh desetletjih 13. stoletja (Todtenhaupt 2000, Abb. 7). Zanesljiva je tudi datacija štajerske protiturške utrdbe Bajcsavár na Madžarskem v čas med 1578 in 1605/1609. Tudi to kresilo ima kot malograjsko luknjico za pritrjevanje (Gyöngyi 2002, 132, št. 80). Nekoliko drugačno je kapljičasto – le na eni strani končno – kresilo, ki je površinska najdba s Kremplnovega hriba pri Škofji Loki (*sl. 5.3*: d). Ta ima primerjavo na avstrijskem najdišču Sieding (Neukirchen), datiranem od 12. do 14. stoletja (Kühtreiber, Lang 2003, Abb. 703).

Malograjsko kresilo je z ovalnim členkom spojeno z verigo z ohranjenimi štirimi tordiranimi členki. Skovani so iz palice kvadratnega prereza s premerom približno 0,6 centimetra. S to verigo je bilo kresilo verjetno obešeno v neposredni bližini ognjišča.

Na Malem gradu lečasto kresilo stratigrafsko sodi v fazo 4b.

Noži so bili na Malem gradu razmeroma pogosta najdba, saj je dokumentiranih šest nožev in ena britev. Noži so prastaro orodje in orožje, znano vsaj od mlajše kamene dobe. Prištevamo jih k predmetom široke uporabe, ki so jih uporabljali na primer v kuhinji, pri rokodelskih opravilih in lovu, v boju itd. Namenjeni so v prvi vrsti rezanju, a tudi prebadanju in nabadanju. Sodijo med najpogostejše najdbe v srednjeveških kontekstih.

V visokem srednjem veku so imeli ljudje svoj nož vedno pri sebi in so ga uporabljali po potrebi (Neergaard 2000, 51). Morda je lahko koristna primerjava z grobišči iz zgodnjega srednjega veka, kjer so noži pogoste najdbe. Tako na slovanskih kot tudi na germanskih grobiščih so nože pridajali v grobove vseh pokojnikov, vendar se glede na prostor in čas pojavljajo razlike. Na primer na bajuvarskem grobišču Altenerding so v določenem obdobju nože v grobove pridajali najverjetneje le hišnim gospodaricam (Pleterski 2002a, 54). Pri Anglih in Sasih pa je v zgodnjem obdobju opazna povezava med družbenim statusom in dolžino noža. Noži, pridani otrokom in ženskam, namreč niso presegali določene dolžine, moškim pa so v grobove lahko prilagali tudi daljše nože (Härke 1990).

V visokem srednjem veku so nože verjetno izdelovali vaški kovači (Slivka 1981, 229) in šele v poznem srednjem veku je nožarstvo postalo specializirana dejavnost. Kovači so izdelovali rezila, ki so jih nožarji opremili z držaji in nožnicami (Predovnik 2003, 84). Takšna delitev dela je smotrna le pri izdelovanju nožev s trakastim pritrdiščem držaja, ki se pojavljajo od 14. stoletja dalje (prim. Cowgill

a reliable context. As regards location the closest analogy was discovered in a grave of a young male, buried in the medieval church in Fijeroga close to Pomjan (*fig. 5.3*: c; Knific 1986, fig. *5:* 17). The tinder from the Serbian burial site Trnjane, dated to the 11th or 12th century has a preserved chain link, just as the one in Mali grad. Lenticular tinder can occasionally be found also in High Medieval burial sites in Russia, Bulgaria, Hungary, Romania and Poland (Marjanović-Vujović 1984, 101–102, Tab. 27: 6; see cited literature) as well as at Slav burial sites in north-eastern Germany (Pollex 2006, 199–200; see cited literature). As regards finds from settlements the find from Otok near Dobrava (with a *terminus ante quem* of 1473) is the closest to Kamnik as regards its location (*fig. 5.3*: b; Šribar 1979, 7: 1).

The oldest precisely dated (between 1180 and 1200) lenticular tinder was found at the burial site Penkun in East Germany (Pollex 2006, Abb. 7: 9, Abb. 8: 18, Abb. 14: 1). The lenticular tinder from the settlement of Düppel in the vicinity of Berlin was lost by its owner in the first two decades of the 13th century (Todtenhaupt 2000, Abb. 7). The Styrian anti-Turk fortification Bajcsavár in today's Hungary is also reliably dated to the period between 1578 and 1605/1609. Similar to the tinder from Mali grad this one also has a small hole for attaching (Gyöngyi 2002, 132, No. 80). Somewhat different is the tear shaped – with one pointed and one rounded end – tinder, a chance find from Kremplnov hrib near Škofja Loka (*fig. 5.3*: d). A similar find dating to between the 12th and 14th century was discovered at the Austrian site of Sieding (Neukirchen) (Kühtreiber, Lang 2003, Abb. 703).

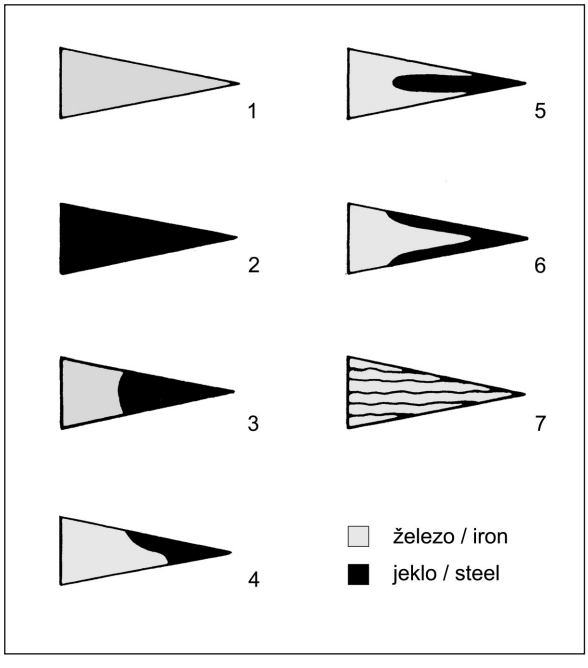
The Mali grad tinder was attached to the chain (of which four torque links are preserved) with an oval shaped link. The links were forged from a rod that had a rectangular cross-section with roughly a 0.6 centimetre diameter. It was most likely that the tinder was suspended from this chain somewhere in the vicinity of the fireplace.

Stratigraphically the lenticular tinder from Mali grad belongs to phase 4b.

Knives are a relatively common find in Mali grad, for six knives and one razor have been documented. The knife is a tool and weapon that has been in use at least from the Neolithic. Knives have a wide scope of use, and can be used in the kitchen, for various types of manual labour or during a hunt, in a battle, etc. Primarily they were used for cutting, but they were also used for piercing and impaling. Knives are one of the most common medieval finds.

In the Early Medieval Slav and German burial sites knives were placed into all graves; however there were differences as regards the location and period. For instance, during a certain period it was typical for the Bavarian burial site of Altenerding for knives to be placed merely in the graves of the female heads of households (Pleterski 2002a, 54). In the early Saxon burials a clear link was

2000, 26). Ker običajno železo ni dovolj trdno za kakovostno rezilo, jeklo pa je bilo v srednjem veku dragoceno, je bila večina nožev izdelana s spajanjem železa in jekla. V srednjem veku je obstajalo več načinov varjenja železa in jekla za različna rezila (*sl. 5.4*).



Sl. 5.4: Različni načini varjenja železa in jekla za izdelovanje rezil v srednjem veku (prirejeno po Cowgill 2000, fig. 5).
Fig. 5.4: Various medieval ways of forging iron and steel for blades (adapted from Cowgill 2000, *fig*. 5).

Najosnovnejša je tipološka delitev nožev glede na pritrdišče držaja, torej na nože s trnom za nasaditev držaja in nože s trakastim oziroma jezičastim pritrdiščem za držaj. Na prve je bil nasajen najpogosteje lesen ali koščen enodelen cilindričen držaj razmeroma velikega premera. Trakasti nastavek za ročaj je bil obložen z lesenimi, koščenimi, roženimi ali kovinskimi platnicami. Te so bile spojene z eno ali več zakovicami, na zgornjem delu držaja pa še z dodatno objemko ali peto držaja, ki je bila pogosto okrašena. Tudi rame, torej prehod rezila v držaj, je bilo pogosto poudarjeno in okrašeno (*sl. 5.5;* prim. Slivka 1981, 229; Cowgill 2000, 25; Predovnik 2003, 84).

V visokem in poznem srednjem veku je bil razpon oblik in velikosti nožev širok, kar je razvidno tudi iz malograjskih najdb. Nekaterim nožem lahko glede na obliko določimo uporabo. To so predvsem bojni noži, sekači in jedilni noži. Prve odlikuje dolžina nad 20 centimetrov, kanal za kri in predvsem kakovost izdelave ter uporabljenih materialov. Podobne nože z nekoliko širšim rezilom in enostransko ostrino imenujemo sekači. Oblika je znana od starejše železne dobe dalje, v srednjem veku pa so jih uporabljali predvsem za kuhinjska in rokodelska opravila. Od konca 14. stoletja naprej se pojavljajo tudi jedilni noži,

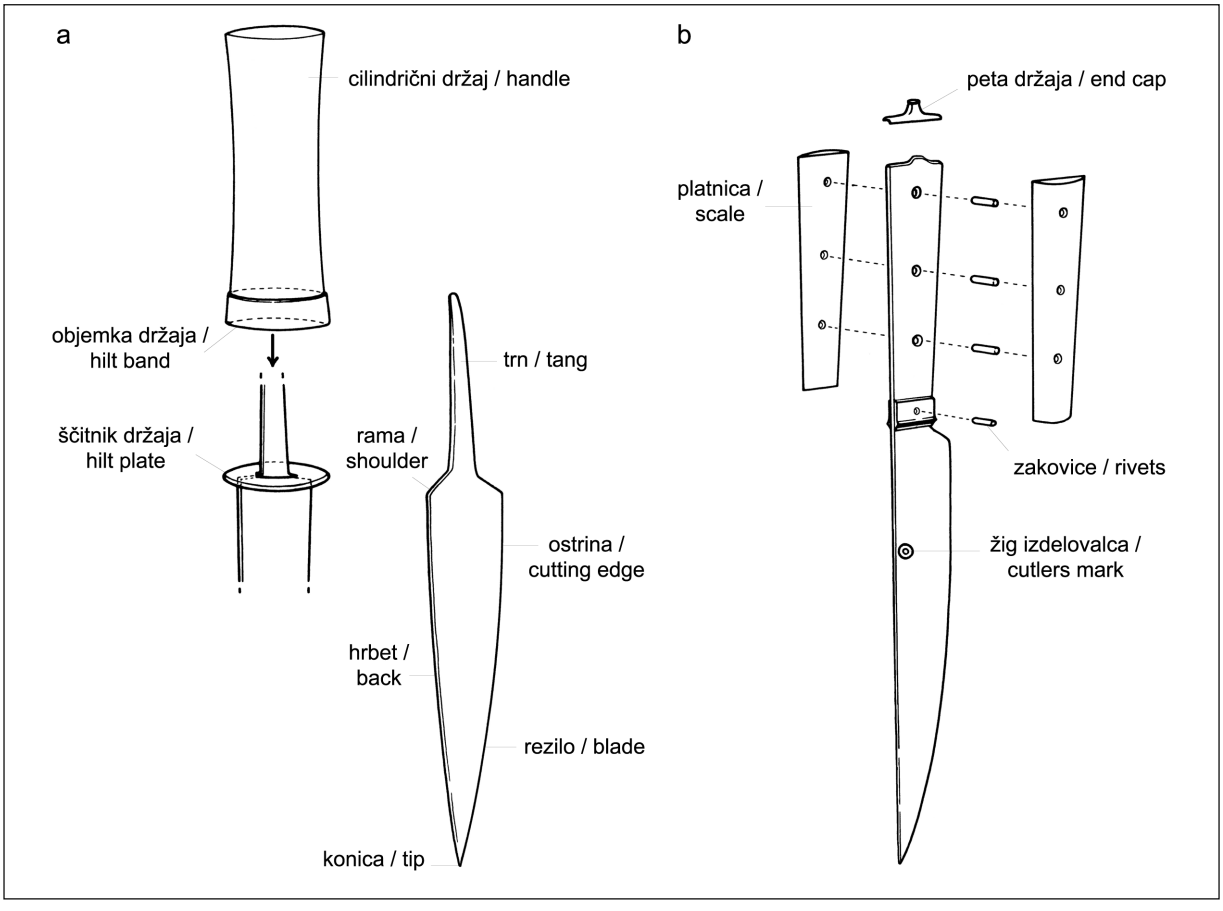
shown between the social status and the length of the knife. Knives placed into children's and women's graves never exceeded a certain length, while men could be buried with longer knives by their side (Härke 1990).

In the High Medieval times people used to carry their knives with them at all times for they used them for a variety of purposes (Neergaard 2000, 51). By then knives were most likely forged by village blacksmiths (Slivka 1981, 229) and it was only in the Late Medieval Period that manufacturing knives became a specialised activity. At this stage blacksmiths forged blades that cutlers equipped with handles and sheaths (Predovnik 2003, 84). Such division of labour made sense only for the production of knives with a scale-tang, something that appeared only in the 14th century (cf. Cowgill 2000, 26). Because pure iron was too soft to manufacture high quality blades and steel was precious, most knives were made from a combination of the two. In the Middle Ages they forged iron and steel in different ways, depending on the intended function of the blade (*fig. 5.4*).

The most basic typological division of knives takes into account handle attachments; they can either be knives with a whittle-tang attachment or knives with a band attachment or a scale-tang. The first was most commonly used for wooden or cylindrical bone handles with a relatively large diameter. The scale-tang was laden with wooden, bone, horn or metal scales. These were attached with one or more rivets and on the upper part of the handle with an additional, often ornamented end cap. The shoulder, i.e. the transition between the blade and the handle was often emphasised and decorated (*fig. 5.5;* cf. Slivka 1981, 229; Cowgill 2000, 25; Predovnik 2003, 84).

In the High and Late Medieval Periods there was a great diversity of knives of various sizes and shapes, which is clear already from the Mali grad finds. In some cases the use of a knife can be deduced from its shape, which is especially the case with fighting knives, choppers and eating knives. The first exceed 20 centimetres in length, had a blood canal and were usually of high quality craftsmanship and materials. Similar knives with a slightly wider blade and a single cutting edge are called choppers. This form is known from the Latter Iron Age onwards, and in Medieval times they were mainly used in kitchens and for various manual tasks. From the end of the 14th century onwards the upper social classes started using knives with highly decorated bone or metal handles as a part of their dinner service. It seems that the use of various knives became clearly separated only in the Late Medieval Period (cf. Slivka 1981, 229; Predovnik 2003, 84). Some authors also place razors into the knife group (e.g. Brmbolić 2000, 124–128).

Typologically knives can also be divided into three groups according to the shape of their backs: knives with a straight, protruding or sickle-shaped back (Stare 2004, 45).



Sl. 5.5: Shema in poimenovanje najpomembnejših sestavnih delov nožev s trnom za nasaditev držaja in nožev s trakastim nastavkom za držaj (prirejeno po Cowgill 2000, fig. 2).
Fig. 5.5: A sketch depicting the most important parts of a knife with a whittle-tang and a knife with a scale-tang (adapted from Cowgill 2000, fig. 2).

za katere so značilni okrašeni koščeni ali kovinski držaji in so jih v srednjem veku uporabljali le najvišji družbeni sloji. Tudi sicer se zdi, da je namembnost posameznih nožev jasno ločena šele v poznem srednjem veku (prim. Slivka 1981, 229; Predovnik 2003, 84). Nekateri avtorji tudi britve uvrščajo v eno izmed uporabnih skupin nožev (npr. Brmbolić 2000, 124–128).

Nože lahko tipološko delimo tudi glede na obliko hrbta v nože z ravnim, izbočenim ali srpastim hrbtom (Stare 2004, 45).

Tipološko so noži s trnastim nasadilom starejši. Trni londonskih nožev 12. in 13. stoletja, na primer, so kratki in se pri nekaterih poznih oblikah podaljšajo do dolžine držaja. Običajno je trn pravokotnega prereza nameščen v osi rezila (Cowgill 2000, 25). Vendar se noži omenjenih starejših oblik v nespremenjeni paleti oblik in velikosti pojavljajo ves čas zgodnjega in visokega srednjega veka. Njihove oblike časovno niso opredeljive (npr. Brmbolić 2000, 124; Donat 1999, 169). Noži s trakastim nastavkom za ročaj se v srednjeveških kontekstih pojavljajo od začetka 14. stoletja dalje. Vendar se ta oblika dokončno uveljavi šele v 15. stoletju (Predovnik 2003, 84).

Knives with a whittle-tang are typologically older. Also, the tangs on the 12th and 13th century London knives are short, while in some late forms they are lengthened to fit the length of the entire handle. Usually the tang has a rectangular cross-section and is located on the axis of the blade (Cowgill 2000, 25). However, knives with the previously mentioned shapes can be found in an unchanged pallet of shapes and sizes throughout the entire Early and High Medieval Period, thus they can not be typologically dated with any precision (e.g. Brmbolić 2000, 124; Donat 1999, 169). Knives with a scale-tang start appearing in the 14th century, however it takes until the 15th century for them to become truly established (Predovnik 2003, 84).

Four knives from Mali grad have a whittle-tang. Due to its wide single sided blade the largest amongst them (*t. 5: 2*) was categorised as a chopper. The long tang with a square cross-section is adjusted to fit the use of the knife. It is positioned so that the shoulder transcends into the back of the blade in a straight line. Poorer quality materials were often used in kitchen knives (Neergaard 2000, 52), which is sometimes indicated by the corrosion

Štiri nože z Malega gradu lahko umestimo med nože s trnastim nasadilom. Največjega med njimi (*t. 5: 2*) glede na široko rezilo z eno ostrino uvrščamo med sekače. Namenu je prilagojen tudi trn kvadratnega prereza, t. i. trnast trn. Ta je nameščen tako, da ravno prehaja v hrbet rezila. Ena od značilnosti kuhinjskih nožev je tudi uporaba manj kakovostnih materialov (Neergaard 2000, 52), na kar v nekaterih primerih lahko kaže korodiranost rezila, kakršna je na obravnavanem nožu (prim. Cowgill 2000, 11). V našem primeru gre verjetno za kuhinjski sekač. Dobrih primerjav za ta nož nismo našli. Glede na specializirano obliko sklepamo, da je poznosrednjeveške starosti ali mlajši.

Le nekoliko manjša je britev (*t. 5: 3*). Da gre za britev, kaže prerez širokega rezila, ki je prilagojen neprestanemu brušenju. Zakovica blizu prehoda trna v držaj pa izdaja, da je bila opremljena tudi z zaklepom. Gre torej za preklopno britev. Za te je značilna tudi srpasta oblika spodnje tretjine rezila, ki posredno prav tako kaže na prisotnost zaklepa. Tudi za ta predmet med visokosrednjeveškim gradivom nismo našli primerjave. Podobne britve oziroma žepne nože sicer najdemo na zgodnjesrednjeveških grobiščih srednje Češke (Sláma 1977, Abb. 35: 19), Moravske (Dostál 1966, Tab. 22: 5; 32: 7; 53: 8) in Hrvaške (Belošević 1980, Tab. 33: 12; 40: 22, 23, 28, 29;). Vendar so ti od malograjske britve najmanj za tretjino manjši in se razlikujejo tudi po nekaterih tipoloških značilnostih. Morda posredno na visokosrednjeveško starost kaže kratek trakast trn pravokotnega prereza.

Dva malograjska noža imata trakast trn, ki je od osi rezila odklonjen v smeri ostrine (*t. 5: 4, 5*). Os rezila noža je bila med uporabo torej nagnjena navzdol, kar kaže na specializirano obliko nožev. Pri prvem se hrbet usločeno lomi v konico, ki je odlomljena. Podoben nož je bil najden v zemljanki najdišča Gebese, ki je datirano v 10. do 12. stoletje (Donat 1999, Abb. 96: 18). Morda poškodba tega noža nakazuje način uporabe. Noži so namreč najpogosteje odlomljeni na sredini rezila (Neergaard 2000, 52), naš pa ima odlomljeno le konico. Skupaj s srpasto oblikovanim hrbtom imamo torej dve znamenji, da sta bila noža uporabljana podobno kot šilo, za dolbenje lukenj ali prebadanje.

Zadnji malograjski nož s trnastim nasadilom je tipološko najstarejši (*t. 5: 8*). Gre za tipičen večnamenski nož s kratkim trakastim trnom, nameščenim na sredini rezila. Odlični primerjavi za ta nož smo našli na poljskem grobišču Nowy Dworz, kjer so pokopavali od sredine 9. do sredine 12. stoletja (Kurasiński 2002, Ryc. 6: 7), in na nemškem najdišču Ulm-Eggingen, kjer je konkreten nož umeščen v visoki srednji vek (Kind 1989, Taf. 120: 4). Kljub temu, da je tak nož težko časovno opredeliti, gre vsaj tipološko za najstarejši nož z Malega gradu.

Tipološko mlajši so trije noži s trakastim nastavkom. Dva (*t. 5: 7, 9*) imata bronaste platnice in ju lahko umestimo med jedilne nože. Med seboj se razlikujeta po

of the blade (e.g. Cowgill 2000, 11). In our case we are most likely dealing with a corroded kitchen chopper. We have not found any good analogies for this knife. Taking its specialised shape into account we can conclude that it dates to the Late Medieval Period or later.

The razor (*t. 5: 3*) is only slightly smaller. The cross-section of the wide blade - which is made so that it can be repeatedly sharpened - indicates that we are dealing with a razor. The rivet close to the shoulder indicates that it had a lock, which clearly indicates it was a folding razor. Such razors were typical for their sickle-shaped lower third of the blade, which also points towards the presence of a lock. We have not found analogies for this object amongst the High Medieval finds. Similar razors or pocket knives were found in Early Medieval burial sites in the Czech Republic (Sláma 1977, Abb. 35: 19), Moravia region (Dostál 1966, Tab. 22: 5; 32: 7; 53: 8) as well as in Croatia (Belošević 1980, Tab. 33: 12; 40: 22, 23, 28, 29). However, these are at least one third smaller than the razor from Mali grad and they also differ in certain typological characteristics. The short whittle-tang with a rectangular cross-section points towards its origins in the High Medieval Period.

Two of the Mali grad knives have a flat whittle-tang that deflects from the blade axis towards the cutting edge of the blade (*t. 5: 4, 5*). When used the blade is therefore turned slightly downwards, which points towards a specialised shape and use of the knife. With the first knife the back slowly turns towards the tip which was broken off. A similar knife was found in a sunken-floor-hut at the Gebese site that dates between the 10th and 12th century (Donat 1999, Abb. 96: 18). It is possible that the damage on this knife indicates its use. It is usual for knives to brake in the middle of the blade (Neergaard 2000, 52), however ours has only a broken tip. Together with the sickle-shaped back this could indicate that the knife was used in a similar way as an awl, i.e. for making holes or piercing.

The last of the Mali grad whittle-tang knives is typologically the oldest (*t. 5: 8*). It is a typical multi-purpose knife with a short and flat whittle-tang placed at the centre of the blade. An excellent analogy to this knife was found at the Polish burial site Nowy Dworz, where burials took place between the mid 9th and the mid 12th century (Kurasiński 2002, Ryc. 6: 7), and at the German site Ulm-Eggingen, where a knife was dated into the High Medieval Period (Kind 1989, Taf. 120: 4). Even though it is hard to date such a knife it is typologically the oldest knife from Mali grad.

Typologically younger are the three knives with the scale-tang handles. Two (*t. 5: 7, 9*) have bronze scales and were used as table knives. They differ in their size and their state of preservation. Both have emphasised shoulder plates, while other details could not be found. As we have already written such knives appear from the 14th century onwards. Similarly dated are the analogies

velikosti in ohranjenosti. Pri obeh je opazna poudarjena ramenska ploščica, drugih podrobnosti pa zaradi stanja ohranjenosti z makroskopskim pregledom nismo odkrili. Takšni noži se pojavljajo, kot smo že zapisali, od konca 14. stoletja dalje. Podobno so datirane tudi primerjave s Slovaške in Nemčije (Slivka 1981, Obr. 17: 8, 9; Tomášová 1999, tab. 5: 7; Gerdsmeier 1995: Abb. 61). Toda glede na okovano rame noža verjetno sodita v 15. ali začetek 16. stoletja (Holl, Parádi 1982, 71–75). Zadnji malograjski nož (*t. 5: 10*) lahko umestimo le splošno med nože s trakastim nasadilom.

Nožev na Malem gradu ni bilo mogoče stratigrafsko opredeliti, britev pa sodi v fazo 4b.

5.2. KLJUČI, KLJUČAVNICI IN ZAPAH

Ključi v obliki, kakršno poznamo še danes, so se pojavili v srednjem veku. Gre za t. i. vrtljive ključe z brado (nem. *bartschlüssel* ali *drehschlüssel*; ang. *keys for mounted locks*), katerih sestavni deli so glava, noga in brada (*sl. 5.9*). Vsi ključi z Malega gradu so kovani iz železa, razlikujejo se po obliki glave, noge in brade.

Oblika glave (*sl. 5.6*: 1–9) je okrogla do ovalna ali rombična. Prve navadno imenujemo romanski, druge pa gotski. Vendar oblika glave ni zanesljiv kronološki kazalnik (Slivka 1981, 237–238; Lungershausen 2004, 83), dandanes se uporablja le kot strokovni izraz. Kronološko izpovedna tipološka lastnost je okrašena glava. Sprva gre za okras v obliki križa ali znaka X v notranjosti ovalne ali rombične glave, pozneje je okrašena cela glava, izdelana v predrti tehniki (*sl. 5.6*: 4, 7). Takšni ključi so datirani v 14. in 15. stoletje (*sl. 5.12;* Slivka 1981, 239; Tomášová 1999, 185). V 15. stoletju se pojavijo ključi z ledvičasto glavo (*sl. 5.6*: 9), ki ostanejo priljubljeni tudi v začetku novega veka (Slivka 1981, 239; Ottaway, Rogers 2002, 2876).

Za opredelitev posameznega ključa je pomembna tudi noga. Dolžina noge nam pomaga pri umestitvi v eno izmed dveh najpogostejših namembnostnih skupin srednjeveških ključev, ključi za pohištvo ali za vrata. Ključi s krajšo nogo so bili namenjeni zaklepanju pohištva, večinoma skrinj, tisti z daljšo zaklepanju vrat (Lungershausen 2004, 82). Vendar je pri tem težko potegniti jasno ločnico. Noge ključev iz Yorka sicer kažejo tri velikostne skupine (*sl. 5.7*). V tem primeru bi kot ključe za zaklepanje skrinj interpretirali prvo skupino, z dolžino noge do 5, 2 centimetra. Druga in tretja skupina, ključi z dolžino noge nad 7,2 centimetra, pa bi bili namenjeni zaklepanju vrat. Razlike med drugo in tretjo skupino še ne znamo interpretirati. Glede na to, da so bile ključavnice tovrstnih ključev vgrajene v vrata (*sl. 5.10*), morda lahko sklepamo na neposredno povezavo med velikostjo oziroma debelino vrat in dolžino noge ključa. Velika vrata bi bila lahko na primer cerkvena ali vhodna grajska vrata, manjša vrata meščanskih hiš ipd.

from Slovakia and Germany (Slivka 1981, Obr. 17: 8, 9; Tomášová 1999, tab. 5: 7; Gerdsmeier 1995: Abb. 61). However, taking into account the forged shoulder blades they most likely belong to the 15th or the beginning of the 16th century (Holl, Parádi 1982, 71–75). The last Mali grad knife (*t. 5: 10*) can only generally be placed amongst knives with scale-tang handles.

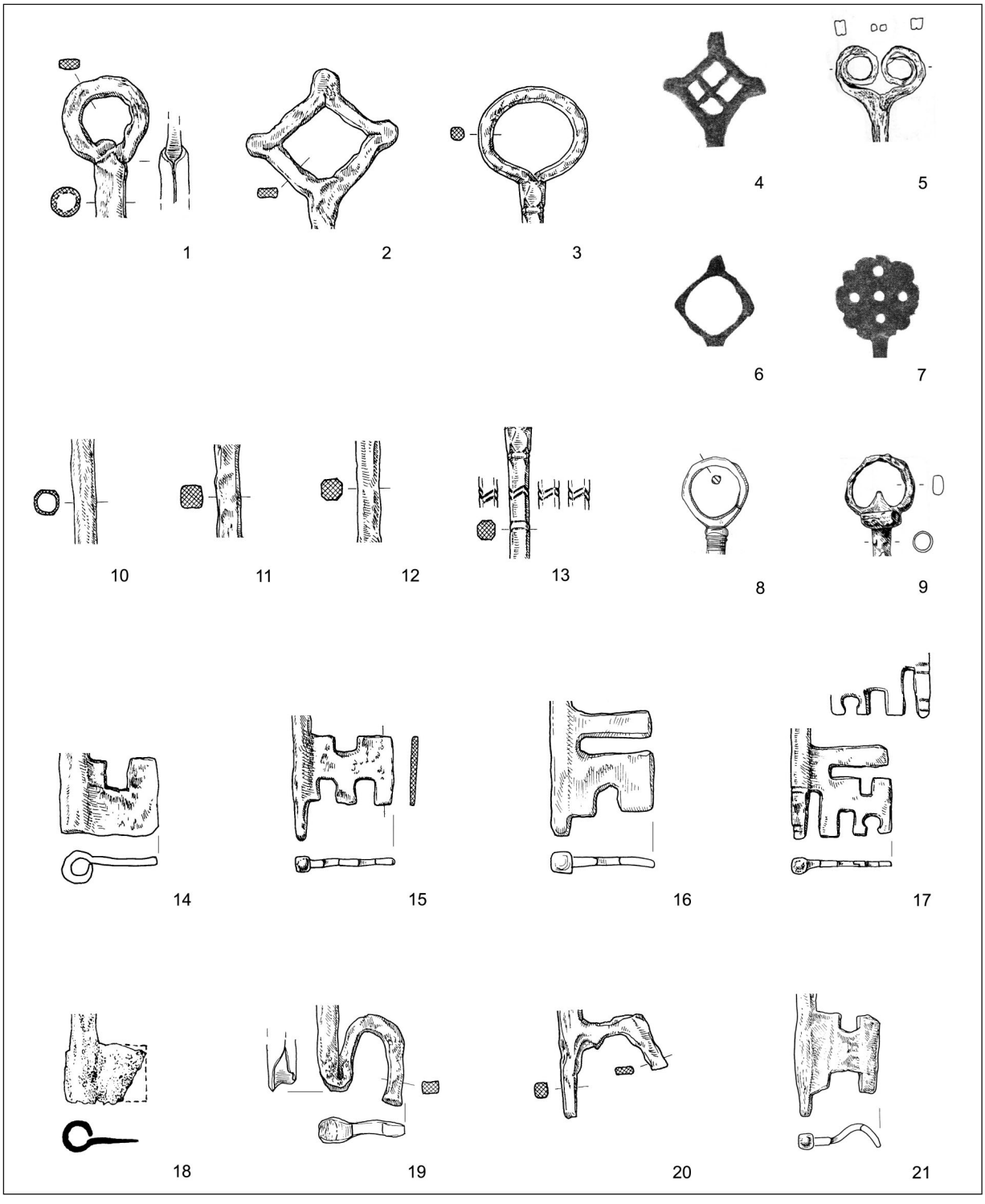
Knives from Mali grad could not be stratigraphically dated, but the razor belongs to phase 4b.

5.2. KEYS, LOCKS AND BOLT

Keys obtained a form similar to the one they have today already in the Middle Ages. These are so-called *rotary keys* (German *bartschlüssel* or *drehschlüssel*), which consist of a bow, shank and a bit (*fig. 5.9*). All keys from Mali grad are forged from iron but they differ in the shape of the bow, shank and bit.

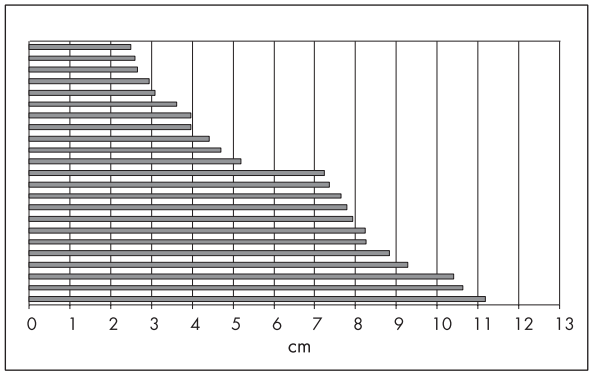
The bow (*fig. 5.6*: 1–8) can be round, oval or of a rhombus shape. The first and second forms are usually specified as Romanesque, while the latter shape is usually known as Gothic. However, the shape of the bow is not a reliable indicator for dating (Slivka 1981, 237–238; Lungershausen 2004, 83), and is today used merely as a descriptive term. On the other hand an ornamented bow is a chronologically determining typological characteristic. At first only an ornament in the shape of a cross or the sign X was pierced on the inside of the oval or rhombus shaped bow, later the entire bow became ornamented, usually in the piercing technique (*fig. 5.6*: 4, 7). The highly ornate keys date to the 14th and 15th century (*fig. 5.12;* Slivka 1981, 239; Tomášová 1999, 185). In the 15th century keys with a kidney shaped bow appeared (*fig. 5.6*: 9), and they remained popular also at the beginning of the Post-medieval Period (Slivka 1981, 239; Ottaway, Rogers 2002, 2876).

The shank is of great importance when defining an individual key. The length of the shank helps us place the key within one of the two most common groups of Medieval rotary keys, i.e. furniture or door keys. Keys with a shorter shank were used for locking furniture, mainly chests, while those with a longer shank were used for locking doors (Lungershausen 2004, 82). However this division is not always as straightforward. The keys from York can be placed in three groups as regards their size (*fig. 5.7*). The first group consists of keys with a shank up to 5.2 centimetres in length that was used for locking chests. The second and third groups include keys with a shank exceeding 7.2 centimetres in length and supposedly used for locking doors. We are still not sure as to how should we interpret the differences between the second and third group. Taking into account the fact that the locks used with such keys were mounted onto doors (*fig. 5.10*), one might conclude that there is a direct link between the size (or rather thickness) of the door and



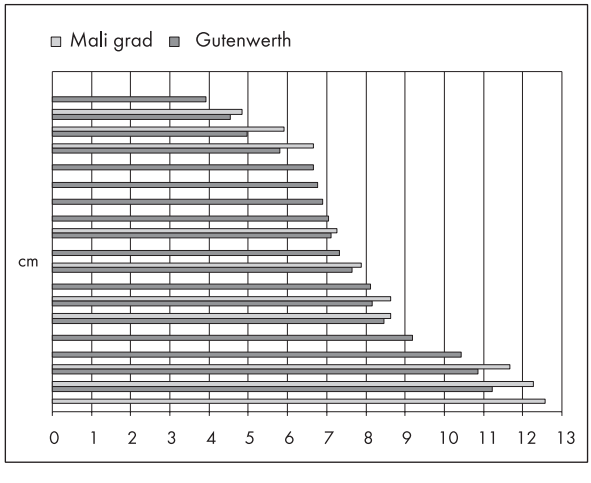
Sl. 5.6: Shema tipološkega razvoja srednjeveških ključev na primeru ključev z Malega gradu (št. 1–3, 10–17, 19–21; prim. *t. 2*) in Slovaške (št. 4 ter 6 in 7 – Slivka 1981, Obr. 13: 8 in 9 ter Obr. 11: 4), Češke (št. 18 – Dostál 1988, Obr. 2: 14), Švice (št. 8 – Grünenfelder, Hofmann, Lehman 2003, Taf. 22: 427), Nemčije (št. 5 – Kaufmann 1999, Taf. 43: 9) ter Anglije (št. 9 – Ottaway, Rogers 2002, Fig. 1449: 12599). Tipološki elementi so kronološko razvrščeni od leve proti desni, vendar pri končnih izdelkih lahko opazujemo skoraj vse mogoče kombinacije. Risbe so v merilu približno 1:2, razen št. 4-9, 1:3.

Fig. 5.6: A depiction of the typological development of Medieval keys on the examples on the keys from Mali grad (Nos. 1–3, 10–17, 19–21; cf. *t. 2*), Slovakia (Nos. 4, 6 and 7 – Slivka 1981, Obr. 13: 8 and 9 and Obr. 11: 4), Czech Republic (No. 18 – Dostál 1988, Obr. 2: 14), Switzerland (No. 8 – Grünenfelder, Hofmann, Lehman 2003, Taf. 22: 427), Germany (No. 5 – Kaufmann 1999, Taf. 43: 9) and England (No. 9 – Ottaway, Rogers 2002, Fig. 1449: 12599). Typological elements are arranged chronologically from left to right; however there could be almost any possible combination of the final products. Drawings are at a scale of 1:2, except Nos. 4-9, which are at a scale of 1:3.



Sl. 5.7: Preglednica dolžine noge srednjeveških vrtljivih ključev z brado z najdišča York v Veliki Britaniji (mere po Ottaway, Rogers 2002, Fig. 1449 in Fig. 1451).
Fig. 5.7: A chart of the shank lengths of the Medieval rotary keys from York, Great Britain (measurements taken from Ottaway, Rogers 2002, Fig. 1449 and Fig. 1451).

Enako izmero smo naredili tudi za malograjske ključe skupaj s ključi z najdišča Otok pri Dobravi, za katerega velja kot *terminus ante quem* leto 1473. Ključi s tega najdišča tvorijo tipološko homogeno skupino, v kateri ni takih z dolžino noge, manjšo od štirih centimetrov. Bolj skrivnosten pa je podatek, da skorajda ne moremo ločiti med prvo in drugo skupino (*sl. 5.8*). Kljub temu rezultat utemeljuje smiselnost primerjave tako oddaljenih najdiščnih skupkov, kot sta York na eni in Mali grad ter Otok pri Dobravi na drugi strani. Pri obeh skupinah se namreč ponovi strukturiranost, delitev med dolgimi in najdaljšimi ključi ter največja dolžina noge ključev.



Sl. 5.8: Preglednica dolžine noge srednjeveških vrtljivih ključev z brado s slovenskih najdišč Otok pri Dobravi in Mali grad (Otok pri Dobravi, mere po Šribar, Stare 1981b, 43–53, in preglednica na strani 30).
Fig. 5.8: The chart shows the shank lengths of Medieval rotary keys from the Slovene sites Otok pri Dobravi and Mali grad (Otok pri Dobravi, measurements from Šribar, Stare 1981b, 43–53, and chart on page 30).

the length of the shank. For instance large doors could be the main church or castle entrance, while smaller doors could belong to a town house, etc.

Similar measurements were conducted for the keys from Mali grad and Otok pri Dobravi. The *terminus ante quem* for the latter - typologically homogenous group - is 1473. It is more surprising that no difference between the first and second group can be observed (*fig. 5.8*). Regardless of this the results justify the comparison between sites as far away as York on one side and Mali grad and Otok pri Dobravi on the other. We can notice certain similarities in both groups: the division between the longer and the longest keys and the longest shank.

The rotary key shank (*fig. 5.6*: 10, 13, 17) can be hollow or full. In most cases the keys with hollow shanks have a circular cross-section, while the full usually have a square or octagonal one. Large keys with a full shank appear in England from the 12th century onwards (Ottaway, Rogers 2002, 2869). Somewhat later is the decoration of the shank with grooves, an ornamentation that usually appears in combination with a multiple cleft bit from the 15th century onwards.

The shape of the lower end of the shank and the bit reveals the type of lock that the key unlocked. This typological division describes the way in which the key fitted the lock mechanism. Keys with a hollow shank were the 'female' pendant to the tang in the lock (Italian: *chiave femmina*). The 'male' keys (Italian *chiave maschio*; cf. Vignola 2003, 71) have a full shank and can be divided into three sub-groups: with a narrowed pin (*fig. 5.6*: 15, 20, 21), with a tang or a parallel (as regards the shank) cleft in the bit (*fig. 5.6*: 17) or with a right angled (as regards the shank) cleft in the bit (*fig. 5.6*: 16). With the first the position of the key in the lock was defined by the tang, while with the latter this position was defined by the right-angled groove. Such a division can also be made for later keys, for the bits from the 15th century onwards had so many clefts (*fig. 5.6*: 17) that the division between the last two types can no longer be determined.

The difference in the number of clefts provides the desired uniqueness of an individual key. In ideal conditions this typological element is therefore useful for defining a key and lock pair. It seems that the clefts could also be an important chronological element. The rotary keys with a hollow shank from the Moravia region (Czech Republic) dating to the 9th and 10th century have a square or rectangular bit without clefts, i.e. a simple bit (*fig. 5.6*: 18 and *fig. 5.10*: 21; for instance Profantová, Kavánová 2003, Obr. 54: 1, 4; Dostál 1988, 148 and Obr. 2: 10–20; for dating the Pohansko-Břeclav site see Macháček 2001, 263–265). In the wooden palatium in the Czech site of Žatec (dated to the first half of the 11th century) four rotary keys were found, three with a simple bit and one with a bit with one cleft (Wieczorek, Hinz 2000, 272, 10. 06. 11 a–d).

Noga ključa (*sl. 5.6*: 10, 13, 17) je lahko votla ali polna. Votle noge so praviloma okroglega prereza, polne pa kvadratnega ali osemkotnega. Veliki ključi s polno nogo se na primer v Angliji pojavljajo od 12. stoletja dalje (Ottaway, Rogers 2002, 2869). Nekoliko mlajši element je okraševanje noge z vrezi, ki se pojavlja navadno v kombinaciji z večkrat razčlenjeno brado od 15. stoletja dalje.

Oblika spodnjega zaključka noge in brada kažeta na vrsto ključavnice, ki jo je odklepal posamezen ključ. Ta tipološka delitev pravzaprav opisuje način prileganja ključa v kretnično ključavnico. Ključi z votlo nogo so bili "ženski" pendant trnu v ključavnici (it. *chiave femmina*). "Moški" so ključi s polno nogo (it. *chiave maschio*; prim. Vignola 2003, 71), ki jih dodatno ločujemo na tri podskupine: s presegajočim trnom (*sl. 5.6*: 15, 20, 21), s trnom oziroma z vzporedno (glede na nogo) zarezo brade (*sl. 5.6*: 17) ali s pravokotno (glede na nogo) zarezo brade (*sl. 5.6*: 16). Pri prvih je lego ključa v ključavnici pogojeval trn, pri zadnjih pa pravokotna zareza. Opisana delitev je možna pri starejših ključih, saj so brade od 15. stoletja dalje lahko tako močno razčlenjene (*sl. 5.6*: 17), da se meja med zadnjima tipoma zabriše.

Razlike v razčlenjenosti brade ključev povzročajo želeno unikatnost posameznega izdelka. Ta tipološki element je torej v idealnih razmerah uporaben za določitev para ključa in ključavnice. Hkrati se zdi, da je razčlenjenost brade lahko pomemben kronološki element. Velikomoravski bradati vrtljivi ključi z votlo nogo, datirani v 9. in 10. stoletje, imajo namreč nerazčlenjeno kvadratno ali pravokotno brado (*sl. 5.6*: 18 in *sl. 5.10*: 21; npr. Profantová, Kavánová 2003, Obr. 54: 1, 4; Dostál 1988, 148 in Obr. 2: 10–20; za datiranje najdišča Pohansko-Břeclav glej npr. Macháček 2001, 263–265). V lesenem palaciju na češkem najdišču Žatec, datiranem v prvo polovico 11. stoletja, so našli štiri takšne ključe, tri z nerazčlenjeno in enega z razčlenjeno brado (Wieczorek, Hinz 2000, 272, 10. 06. 11 a–d).

Ključa z razčlenjeno brado najdemo na zgornjeavstrijski utrdbi Burgstall Pfaffstätt, katere opredelitev v 9. in 10. stoletje pa ni zanesljiva (Pollak 2005, Tafel 6: 56, 57; glej poglavje 5.7). Na zahodu Švice so ključi z razčlenjeno brado datirani od 10. do 11. stoletja (Hofmann Rognon 2005, planche 37: 15–19). Ključi z razčlenjeno brado, a običajno nekoliko natančnejšo dodelavo, so datirani od 11. do 14. stoletja, kar kažejo številne primerjave (na primer: Slovaška, različna najdišča, dat. 13., 14. st. – Slivka 1981, 236; Češka, najdba izrabljenih predmetov za predelavo v kovačiji, dat. pred l. 1420 – Krajíc 1993, Obr. 10: 86 in Obr. 12: 172; Poljska, grobišče Giecz, dat. 11., 12. st. – Kurasiński 2004, Rys. 2: 1 in Tabela 1; Švica, dat. 11. do 13. st. – Bader 1998, Taf. 12: 463; Nemčija, pozno 12. st. z nemškimi primerjavami od zgodnjega 11. do sredine 12. stoletja – Gros 1991, Abb. 115: 7; Italija, Furlanija, grad Attimis, dat. tipološko v 13. ali 14. st. – Vignola 2003, 71 in Tav. 6: 3).

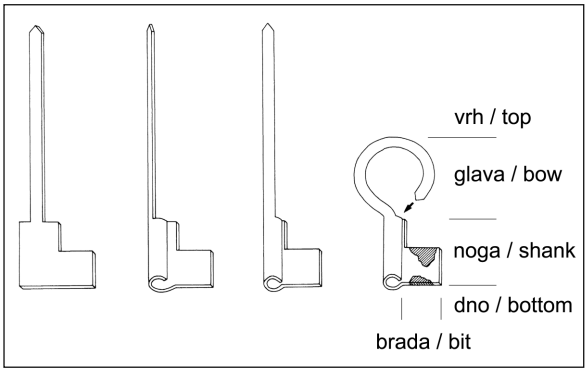
The keys with a bit with multiple clefts, i.e. a developed bit, can be found in the Upper Austrian fort Burgstall Pfaffstätt, which is provisionally dated into the 9th and 10th century (Pollak 2005, Tafel 6: 56, 57; see chapter 5.7). In western Switzerland the oldest keys with a developed bit are dated into the 10th and 11th century (Hofmann Rognon 2005, Planche 37: 15–19). Keys with a developed bit and more precise workmanship are dated between the 11th and 14th centuries, which is proven through numerous analogies (for instance: Slovakia, various sites, 13th and 14th century – Slivka 1981, 236; Czech Republic, the discovered blacksmith's objects, pre 1420 – Krajíc 1993, Obr. 10: 86 and Obr. 12: 172; Poland, burial site Giecz, 11th and 12th century – Kurasiński 2004, Rys. 2: 1 and Tabel 1; Switzerland, 11th and 13th century – Bader 1998, Taf. 12: 463; Germany, late 12th century with German comparisons from early 11th to mid 12th century – Gros 1991, Abb. 115: 7; Italy, Furlania, castle Attimis, typologically dated to 13th or 14th century – Vignola 2003, 71 and Tav. 6: 3).

Keys with a hollow shank were forged from a single sheet of metal, as shown in *fig. 5.9*. This manufacturing technique is known from the Early Medieval Period onwards and remained popular also during the High Medieval period (Ottaway, Rogers 2002, 2867).

The technique of forging keys with a full shank by forging a single piece of metal or by joining the main parts together (the bow, shank and bit) appears later on. In Britain this technique has been known as early as at the end of the 11th century (Ottaway, Rogers 2002, 2867), while in Slovakia it appeared only in the 13th century and became common practice as late as the 15th century (Slivka 1981, 237). Using merely macroscopic studies it can sometimes be hard to define the difference between the two techniques of manufacturing keys with a full shank. The technique that uses welding can sometimes be recognised by the stronger joint between the bow and the shank, i.e. shoulders, reinforced with a ring (*fig. 5.6*: 8).

On the basis of the above analysis the typological development of all three parts of the rotary key can be followed (*fig. 5.6*). However, the typological versions of the individual compounds appear in all possible combinations. At keys with a hollow shank the typological development of certain elements can be observed. In the 9th and 10th century they have a simple bit, while in the second half of the 10th century, or in the 11th century at the latest, keys with developed bits come into use. Such keys remained in use until the end of the 13th century, and towards the end they obtained increasingly diversified bits. The bows from between the 9th and 11th century had a flat cross-section, however as times progressed the cross-section became increasingly square.

The most unusual key from Mali grad is the one with a hollow shank and the bit shaped as the letter U (*t. 2: 1*). The manufacturing technique was similar to that



Sl. 5.9: Shematični prikaz postopka izdelave ključa z votlo nogo iz enega kosa pločevine in osnovni deli ključa (shema po Lungershausen 2004, Abb. 32).
Fig. 5.9: A drawing showing the stages in the forging of a rotary key with a hollow shank from a single sheet of metal and the elementary parts of the key (drawing after Lungershausen 2004, Abb. 32).

Ključi z votlo nogo so bili skovani iz enega kosa pločevine, kot prikazuje shema (*sl. 5.9*). Ta tehnika izdelave je znana od zgodnjega srednjega veka in je ostala priljubljena tudi v visokem srednjem veku (Ottaway, Rogers 2002, 2867).

Mlajša je tehnika izdelovanja ključev s polno nogo s kovanjem iz enega kosa železa ali s spajanjem glavnih sestavnih delov, glave, noge in brade. Slednjo tehniko poznajo v Britaniji že od konca 11. stoletja (Ottaway, Rogers 2002, 2867). Na Slovaškem se pojavi v 13. stoletju, običajna pa postane šele v 15. stoletju (Slivka 1981, 237). Razliko med tehnikama izdelave ključev s polno nogo je zgolj z makroskopskim opazovanjem težko določiti. Tehniko spajanja sestavnih delov včasih prepoznamo po utrditvi spoja glave in polne noge z obročkom (*sl. 5.6*: 8).

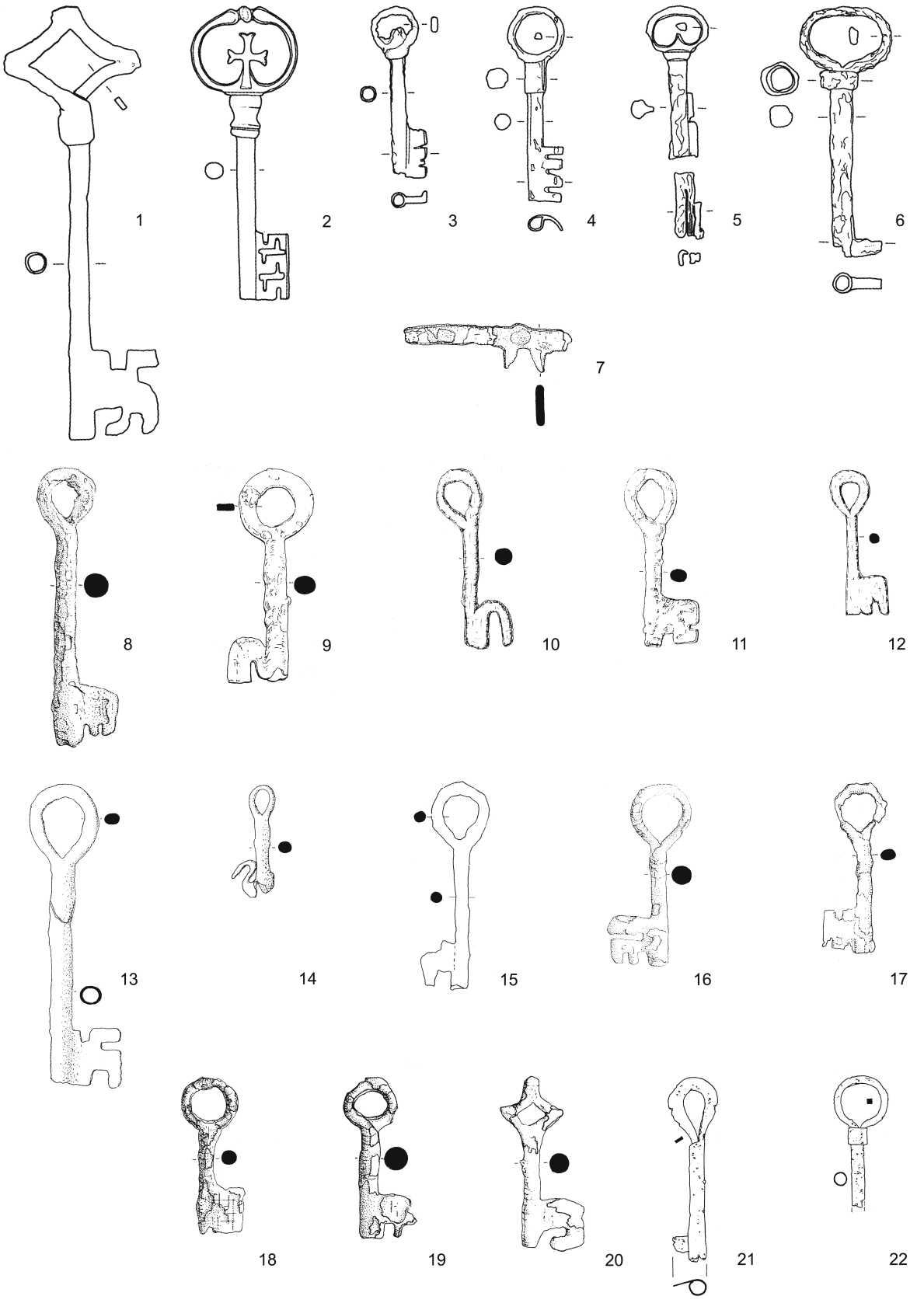
Na podlagi zgornje analize lahko sledimo tipološkemu razvoju vseh treh sestavnih delov vrtljivih ključev z brado (*sl. 5.6*). Vendar se tipološke različice posameznih sestavin pojavljajo dobesedno v vseh možnih kombinacijah. Pri ključih z votlo nogo lahko slutimo tipološki razvoj nekaterih elementov. Brada je v 9. in 10. stoletju nerazčlenjena, morda v drugi polovici 10. stoletja, zagotovo pa v 11. stoletju pridejo v uporabo ključi z razčlenjeno brado. Takšni ostanejo v uporabi nekako do konca 13. stoletja, pri čemer je brada vedno bolj razčlenjena. Glave

used for forging other keys with a hollow shank; the only difference was that the bit had a different design. It was not cut from a sheet of metal (example *fig. 5.9*), instead it was forged by bending the shank. First it was bent back towards the top and then towards the bottom of the key. Regardless of the unusual shape the hole at the end of the shank shows that such a key most likely unlocked a similar lock as keys with developed bits. So far a single similar key has been found outside of Slovenia. A similar key, only with an S shaped bit was found together with 11th and 12th century pottery at the Slovakian site Trebišov - Kovaľky (Slivka 1981, Obr. 7: 2), while two similar keys were found at the already mentioned site Otok pri Dobravi (*fig. 5.10*: 9, 10; Šribar 1979, t. 20: 10; 34: 10). Taking into account the shape of the bit (that determines the type of lock) we can conclude that the key was not made before the 11th century.

The next group of keys from Mali grad is represented by rotary keys with developed bits and a hollow shank. The first is especially interesting (*t. 2: 2*) because it - with a shank length of 6.2 centimetres - belongs exactly in the middle between the keys for chests and keys for doors (*fig. 5.7*). Taking into account the bit with multiple clefts it belongs amongst the younger or higher developed keys with a hollow shank. As regards its function the second key (*t. 2: 3*) can be described as a key for chests, and the bit with a singular cleft clearly determines it as an older and less developed key with a hollow shank.

It is believed that the oldest rotary keys with a bit and a hollow shank in Slovenia were found at the Early Medieval site of Brdo near Bled (*fig. 5.10*: 21, 22; Müllner 1894, sl. 17 and 18; NM inv. No. S 2142 and S 2142). The graves at this site are a part of the Žale burial site that has been dated into the 7th and 8th century (Bajde 2007, 58–64). Taking into account the poorly preserved simple bit, the first key can be compared to the aforementioned Great Moravian keys (Dostál 1988, Obr. 2: 10–20). The second Bled key lacks a bit, but has a ring on the shoulder. Such keys appear in Switzerland from the 14th or 15th century onwards (Lehman 2003, 383; Grünenfelder et al. 2003, Tafel 22: 428). Also, as a rule keys do not appear on Slav burial sites prior to the end of the 10th century (Kurasiński 2004, Tab. 1; Biermann 2004, 440–441). If this is not an exception it might be explained with the unreliability of the burial site context. It is possible that the keys do not originate from the

Sl. 5.10: Izbor najdb vrtljivih ključev z brado z votlo nogo in ključavniške kretnice iz Slovenije, vse železo, merilo 1:3. Stari grad nad Celjem (št. 1–6: Guštin 2001, 276, kat. št. 281, 285–289), Otok pri Dobravi (št. 8–18, 20: Šribar 1979, t. 9: 13, t. 20: 10, t. 34: 10, t. 38: 4, t. 42: 1, t. 48: 7, t. 49: 3, t. 55: 4, t. 42: 1, t. 71: 3, t. 70: 4, t. 9: 13; št. 19: Šribar, Stare 1981a, t. 46: 2), Brdo pri Bledu (št. 21, 22; Knific 1983, t. 29: 6, 7) in Stari grad nad Podbočjem (št. 23: Guštin 1993, *sl.* 25: 9).
Fig. 5.10: A selection of discovered rotary keys with a hollow shank and bolts from Slovenia, all iron, scale 1:3. Stari grad above Celje (Nos. 1–6: Guštin 2001, 276, Cat. No. 281, 285–289), Otok pri Dobravi (Nos. 8–18, 20: Šribar 1979, t. 9: 13, t. 20: 10, t. 34: 10, t. 38: 4, t. 42: 1, t. 48: 7, t. 49: 3, t. 55: 4, t. 42: 1, t. 71: 3, t. 70: 4, t. 9: 13; No. 19: Šribar, Stare 1981a, t. 46: 2), Brdo near Bled (Nos. 21, 22; Knific 1983, t. 29: 6, 7) and Stari grad above Podbočje (No. 23: Guštin 1993, *fig.* 25: 9).


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ključev 9. do 11. stoletja imajo ploščat prerez, pozneje je ta vedno bolj kvadraten.

Med malograjskimi ključi je najbolj nenavaden ključ z votlo nogo z brado v obliki črke U (*t. 2: 1*). Tehnika izdelave je podobna kot pri ostalih ključih z votlo nogo, le brada je oblikovana drugače. Ni izrezana iz za to predvidenega dela pločevine (prim. *sl. 5.9*), temveč je izdelana z ukrivljanjem noge. Ta je zakrivljena najprej nazaj v smeri glave in nato naprej v smeri konca noge. Kljub nenavadni obliki luknja na koncu noge kaže, da je tak ključ verjetno odklepal podobno ključavnico kot ključi z razčlenjeno brado. Zanj poznamo zunaj Slovenije le eno primerjavo. Podoben ključ, le z esasto ukrivljeno brado, je bil najden skupaj z lončenino iz 11. do 12. stoletja na slovaškem najdišču Trebišov - Kovaľky (Slivka 1981, Obr. 7: 2). Še dve primerjavi pa poznamo z že omenjenega najdišča Otok pri Dobravi (*sl. 5.10*: 9, 10; Šribar 1979, t. 20: 10; 34: 10). Glede na obliko brade, ki pogojuje vrsto ključavnice, sklepamo, da ključ ni bil izdelan pred 11. stoletjem.

Naslednjo skupino ključev z Malega gradu predstavljata vrtljiva ključa z razčlenjeno brado in votlo nogo. Prvi (*t. 2: 2*) je zanimiv zato, ker s svojo dolžino noge 6,2 centimetra sodi natančno na sredino med ključe za skrinje in ključe za vrata (*sl. 5.7*). Glede na večkrat razčlenjeno brado sodi med mlajše oziroma bolj razvite ključe z votlo nogo. Drugega (*t. 2: 3*) lahko funkcionalno umestimo med ključe za skrinje, glede na enkrat razčlenjeno brado pa sodi med starejše oziroma manj razvite ključe z votlo nogo.

Domnevno najstarejša vrtljiva ključa z brado in votlo nogo v Sloveniji poznamo z zgodnjesrednjeveškega najdišča na gomili Brdo na Bledu (*sl. 5.10*: 21, 22; Müllner 1894, fig. 17 in 18; NM inv. št. S 2142 in S 2142). Tukajšnji grobovi so del grobišča Žale, ki ga opredeljive najdbe postavljajo v 7. in 8. stoletje (Bajde 2007, 58–64). Prvega glede na slabo ohranjeno nerazčlenjeno brado verjetno lahko primerjamo z omenjenimi velikomoravskimi ključi (Dostál 1988, Obr. 2: 10–20). Drugi nima ohranjene brade in ima na stiku glave in noge obroček. Takšni ključi se v Švici pojavljajo od 14. ali 15. stoletja dalje (Lehman 2003, 383; Grünenfelder et al. 2003, Tafel 22: 428). Vsekakor se ključi na slovanskih grobiščih pred koncem 10. stoletja praviloma ne pojavljajo (Kurasiński 2004, Tab. 1; Biermann 2004, 440–441). Če ne gre za izjemo, to morda lahko pojasnimo z nezanesljivostjo grobiščnega konteksta. Povsem mogoče je, da ključa ne izvirata iz grobov, na kar kaže tudi sestava najdb. Skupaj z omenjenima ključema sta bila inventarizirana še dva zgodnjesrednjeveška lonca in otka, ki se sicer v zgodnjesrednjeveških grobovih ne pojavlja. V tem primeru grobiščna celota ne bi datirala ključev. Z najdišča Otok pri Dobravi poznamo več vrtljivih ključev z razčlenjeno brado in votlo nogo (*sl. 5.10*: 8, 11-20; Šribar 1983, t. II), enega pa z najdišča Stari grad nad Podbočjem (*sl. 5.10*: 23; Guštin et al. 1993, sl. 25: 9). Vsaj en tak ključ je znan

graves, which is also indicated by the composition of the finds. Together with the two keys two Early Medieval pots and a plough-staff were catalogued, and they do not appear in Early Medieval graves. In this case the keys can not be dated by the burial site and are therefore not Early Medieval. Numerous rotary keys with bits and a hollow shank were found at Otok pri Dobravi (*fig. 5.10*: 8, 11-20; Šribar 1983, t. II), and one was found at Stari grad above Podbočje (*fig. 5.10*: 23; Guštin et al. 1993, sl. 25: 9). At least one key is also known from the tower on Krancelj in Škofja Loka (Kalan 1999, 2). In Central Europe numerous analogies are dated between the 11th and 14th century (e.g. Poland, burial site, 2nd half of the 12th century – Kurasiński 2004, Ryc. 3, 5; Czech Republic, castle, end of 13th and first decades of 14th century – Huml 1967, Tab. VI: 3; Czech Republic, depository of used objects, pre 1420 – Krajíc 1993, Obr. 10: 86; 12: 172; Slovakia, multiple sites, 13th century – Slivka 1981, Germany, town, late 12th century – Gross 1991, Abb. 115: 7; Germany, church, 11th, beginning of 12th century - Lungershausen 2003, 81). Most finds come from towns or castles (Lungershausen 2004, 81) and sometimes they were placed in graves (Kurasiński 2004).

The remaining keys from Mali grad have a full shank. Most of them belong into the group of keys with a full shank and a narrowed pin. Three of them have a bit with only a few clefts and various bows: round with a flat cross-section (*t. 2: 7*), rhombic with a flat cross-section (*t. 2: 6*) and rhombic with an octagonal cross-section and rounded edges or a square cross-section with riveted edges (*t. 2: 8*). One example (*t. 2: 5*) has a bit with multiple clefts and a rhombic bow with a flat cross-section. The last from this group has a round flat bow and a damaged bit (*t. 2: 4*). Similar are the keys from Otok pri Dobravi (Šribar 1979, t. 71: 1) and from the castle Šariš in Slovakia (Slivka 1981, Obr. 15: 1).

One of the Mali grad keys can be placed within the group with a tang or a parallel cleft (*t. 2: 11*). It has a round bow with an almost circular cross-section. The shoulder is strengthened and artfully worked, which leads us to believe that the key was made by welding different parts. It has multiple clefts and a shank decorated with grooves, both of which are typologically younger elements.

The last of the Mali grad keys are the two keys with the rectangular cleft in the bit. The first (*t. 2: 9*) is no different from the remaining keys with a rhombic bow and a flat cross-section, while the second is poorly preserved (*t. 2: 10*). The bow is either rhombic or circular and has an extension on the upper part, similar to the one on the key from the museum in Košice, Slovakia (*fig. 5.6*: 6). The shank has a square cross-section, while the bottom of the shank and the bit show that this is a key with a right-angled cleft.

Three keys from Mali grad (*t. 2: 1, 2, 9*) belong to phase 4b, while the others can be placed into phase 5.

tudi s stolpa na Kranclju v Škofji Loki (Kalan 1999, 2). Iz srednjeevropskega prostora poznamo številne primerjave, datirane v čas od 11. stoletja do začetka 14. stoletja (npr. Poljska, grobišče, dat. 2. pol. 12. stoletje – Kurasiński 2004, Ryc. 3, 5; Češka, grad, dat. konec 13. in prva desetletja 14. st. – Huml 1967, Tab. VI: 3; Češka, depo izrabljenih predmetov, dat. pred 1420 – Krajíc 1993, Obr. 10: 86; 12: 172; Slovaška, več najdišč, dat. 13. stoletje – Slivka 1981, Nemčija, mesto, dat. pozno 12. stoletje – Gross 1991, Abb. 115: 7; Nemčija, cerkev, 11., začetek 12. stoletja - Lungershausen 2003, 81). Najpogosteje so najdeni v mestih in na gradovih (Lungershausen 2004, 81) ter kot grobni pridatki (Kurasiński 2004).

Preostali malograjski ključi imajo polno nogo. Večina jih sodi v skupino ključev s polno nogo s presegajočim trnom. Trije imajo manj razčlenjeno brado, ločijo pa se po obliki glave: okrogla s ploščatim prerezom (*t. 2: 7*), rombična s ploščatim prerezom (*t. 2: 6*) in rombična z osemkotnim prerezom z zaobljenimi robovi oziroma kvadratnim prerezom z zakovanimi robovi (*t. 2: 8*). En primerek (*t. 2: 5*) ima večkrat razčlenjeno brado in rombično glavo s ploščatim prerezom. Zadnji iz te skupine ima okroglo ploščato glavo in poškodovano brado (*t. 2: 4*). Slabo ohranjena brada je bila verjetno izdelana s prekovanjem noge. Taka je na primer brada enega izmed ključev z Otoka pri Dobravi (Šribar 1979, t. 71: 1) in ključa z gradu Šariš na Slovaškem (Slivka 1981, Obr. 15: 1).

Enega od malograjskih ključev lahko umestimo v skupino s trnom oziroma vzporedno zarezo (*t. 2: 11*). Ima okroglo glavo s skoraj okroglim prerezom. Stik glave z nogo je utrjen in umetelno izdelan, kar nakazuje, da je bil ključ izdelan s spajanjem sestavnih delov. Ima večkrat razčlenjeno brado in z vrezi okrašeno nogo, kar sta tipološko mlajša elementa.

Zadnja malograjskih ključev sta ključa s pravokotno zarezo brade. Prvi (*t. 2: 9*) se ne razlikuje od ostalih ključev z rombično glavo s ploščatim prerezom. Drugi je slabo ohranjen (*t. 2: 10*). Glava je bodisi rombična ali okrogla z izrastkom na zgornji strani, kakršnega ima na primer ključ iz muzeja v Košicah na Slovaškem (*sl. 5.6*: 6). Noga je kvadratnega prereza, dno noge in brada pa nakazujeta, da gre za ključ s pravokotno zarezo.

Trije ključi (*t. 2: 1, 2, 9*) z Malega gradu sodijo v fazo 4b, preostale je mogoče posredno glede na lego v prostoru umestiti v fazo 5.

Ključi z votlo nogo so odklepali *kretnične ključavnice*, kakršno prikazuje shematična upodobitev (*sl. 5.11*), narejena na podlagi ohranjene ključavnice iz 15. stoletja z najdišča York v Angliji. Tovrstne ključavnice imenujemo tudi kombinirane, ker so izdelane iz lesa in železa. Železni deli so ščitna plošča z utorom za ključ, kretnica in vzmet. Ključavnice lahko razdelimo na več tipov glede na obliko utora in pritrditve ščitne plošče. Leseno ohišje ključavnice je bilo sestavni del vrat. Srednjeveške kretnične ključavnice so bile običajno dostopne le z

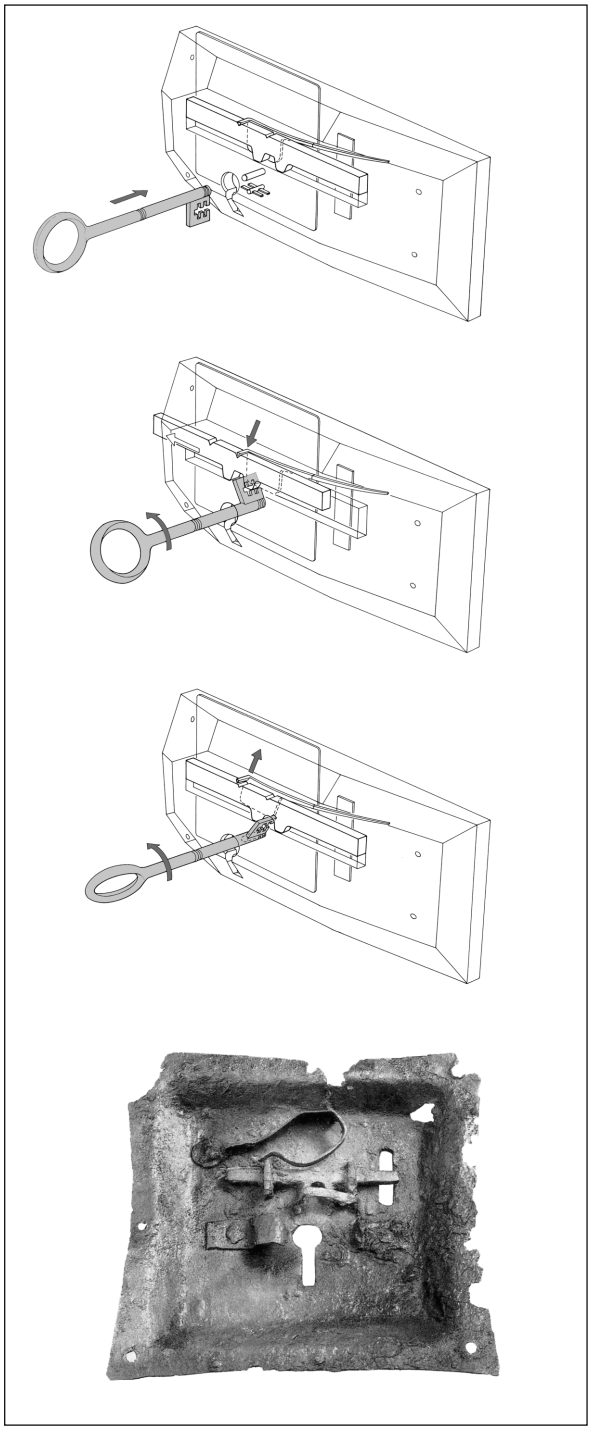
The keys with the hollow shank unlocked *rotary locks* (as shown in *fig. 5.11*, drawn on the basis of the 15th century rotary lock from York, United Kingdom). Such locks are also known as combined locks, for they are made from a combination of wood and iron. The key-guard plate with the keyhole, bolt and spring were made from iron. The locks can be categorised according to the shape of the hole and the way the key-guard plate is mounted. The wooden casing was a constituent part of the doors. Medieval mechanism locks could usually be locked only from the inside (Ottaway, Rogers 2002, 2861–2863; Slivka 1981, 234). However, some finds show that doors could also be locked from the outside, for instance the key found *in situ* in a cellar of a town house in Brno (Holub et al. 2005, 84). It is hard to imagine that the intention of this lock was to enable the owner of the house to lock himself in the cellar.

The rotary lock made for a key with a narrowed pin worked in a similar way. The only difference was that the key was guided into the correct position within the lock by the circular key ward that captured the narrowed pin. The differences in the shape of the bit demanded merely minimal adjustments to the lock mechanism (Ottaway, Rogers 2002, 2861–2863).

Amongst the finds from Mali grad two bolts were found (*t. 2: 12, 13*) that do not have a groove for the spring and differ from one another merely in minute details.

Once again, the nearest analogy can be found at the site Otok pri Dobravi (*fig. 5.10*: 7; Šribar, Stare 1981a, t. 8: 4). As with keys the oldest analogies were found in Pohansko. Five bolts, four key-guard plates and one bolt together with the key-guard plate are preserved. The finds are dated into the 8th to 10th centuries (Dostál 1988, Obr. 3: 1–8). An excellently preserved bolt with a key-guard plate was found at Todenmann close to Rinteln, Lower Saxony, dated to the second half of the 11th century or the beginning of the 12th century (*fig. 5.11*; Kluge-Pinsker 1992, 43, Abb. 80). Bolts similar to the ones found at the Flaschberg castle in Austrian Carinthia are common also in Switzerland where they were dated between the 12th and 16th century (Stadler 1995, 256 in Taf. 26: F59). Three different bolts were found in Jenalöbitz (Germany), all of which originate from settlements dating between the end of the 13th century and the beginning of the 15th century (Stoll 1993, 80 and Tafel 26: 2–4). The finds from York have already been mentioned (Ottaway, Rogers 2002, Fig. 1440: 9045; 1441: 12558, 15082). Bolts from Burgstall Pfaffstätt (Upper Austria), which are unreliably dated to the 9th and 10th century, have a single preserved groove on the upper part of the back (Pollak 2005, Tafel 7: 62–65).

The only typological difference between the preserved locks can be seen in the way the bolt was attached to the key-guard plate. At both older locks the mechanism was rigidly attached with staples, while the younger lock has a flexible attachment. The spring restricted the



Sl. 5.11: Shema delovanja kretnične ključavnice (po Ottaway, Rogers 2002, Fig. 1439) in spodaj fotografija ščitne plošče ter mehanizem kretnične ključavnice skrinje z najdišča Todenmann pri kraju Rinteln, Spodnja Saška (Kluge-Pinsker 1992, Abb. 80).

Fig. 5.11: Drawing showing the rotary-lock mechanism (taken from Ottaway, Rogers 2002, Fig. 1439) and bellow a photograph of the key-guard plate with staples and bolt, from a chest from Todenmann near Rinteln, Lower Saxony (Kluge-Pinsker 1992, Abb. 80).

notranje strani vrat (Ottaway, Rogers 2002, 2861–2863; Slivka 1981, 234). Vendar nekateri konteksti kažejo tudi na zaklepanje z zunanje strani, kot na primer najdba ključa *in situ* v kleti meščanske hiše v Brnu (Holub et al. 2005, 84). Težko bi si namreč predstavljali, da je bila pripadajoča ključavnica nameščena tako, da je omogočala lastniku hiše le to, da se je zaklenil v klet.

Ključavniški mehanizem, prilagojen ključem z nogo s trnom, je deloval na podoben način. Razlika je bila le v tem, da je vlogo vodila za pravilno lego ključa v ključav-



Sl. 5.12: Zahodni portal trogirske katedrale (Hrvaška), Radovanov portal, Mojster umivanja nog (ok. l. 1320–1330): *Sv. Peter* (foto E. Lozić; prim. Stošić 1994, 69–70); v rokah drži realistično upodobljen bradati vrtljivi ključ z votlo nogo, večkrat razčlenjeno brado in okrašeno rombično glavo, izdelano v predrti tehniki.

Fig. 5.12: Western portal of Trogir's cathedral (Croatia), Radovan's portal, master of feet washing (approx. 1320–1330): *St. Peter* (photo by E. Lozić; cf. Stošić 1994, 69–70); in his hands he holds a realistically depicted rotary key with a hollow shank, developed bit and an ornamented rhombic bow, made by piercing.

nici opravljal utor, v katerega je nalegal trn ključa. Tudi razlike v oblikovanosti brade ključa so na ključavniškem mehanizmu zahtevale le minimalne prilagoditve (Ottaway, Rogers 2002, 2861–2863).

Med najdbami z Malega gradu sta tudi kretnici (*t. 2: 12, 13*), ki se med seboj razlikujeta le v podrobnostih. Sta del vgradnih ključavnic s kretnico, za katero imamo v slovenskem jeziku onomatopoetski izraz *drleskovc* (informacija Jože Čop, Bohinj). Na kretnicah nismo opazili utorov za vzmet.

Najbližjo primerjavo zopet najdemo na najdišču Otok pri Dobravi (*sl. 5.10*: 7; Šribar, Stare 1981a, t. 8: 4). Najstarejše primerjave smo kot pri ključih našli na Pohanskem, kjer je ohranjenih pet kretnic, dva ostanka ščitne plošče in en mehanizem s ščitno ploščo. Najdbe so datirane v 9. in 10. stoletje (Dostál 1988, Obr. 3: 1–8). Odlično je ohranjen mehanizem s ščitno ploščo z najdišča Todenmann pri kraju Rinteln, Spodnja Saška, datiran v drugo polovico 11. oziroma začetek 12. stoletja (*sl. 5.11*; Kluge-Pinsker 1992, 43, Abb. 80). Kretnice, kakršna je bila najdena na gradu Flaschberg na avstrijskem Koroškem, so pogoste tudi v Švici, kjer so datirane od 12. do 16. stoletja (Stadler 1995, 256 in Taf. 26: F59). Na nemškem najdišču Jenalöbitz so bile najdene tri med seboj različne kretnice, ki izvirajo iz naselbin, datiranih od konca 13. do začetka 15. stoletja (Stoll 1993, 80 in Tafel 26: 2–4). Najdbe iz Yorka smo že omenili (Ottaway, Rogers 2002, Fig. 1440: 9045; 1441: 12558, 15082). Kretnice z zgornjeavstrijskega najdišča Burgstall Pfaffstätt, ki je nezanesljivo datirano v 9. in 10. stoletje, imajo ohranjen po en utor na zgornji strani hrbta (Pollak 2005, Tafel 7: 62–65).

Edina tipološka razlika med ohranjenimi ključavnicami je način pritrditve kretnice na ščitno ploščo. Pri obeh starejših ključavnicah je kretnica pritrjena togo s pločevinastima trakovoma. Mlajša ključavnica ima prožno vpetje. Vzmet omejuje gibanje kretnice in hkrati preprečuje, da bi jo obračanje ključa potisnilo navzgor in premaknilo iz ležišča. Le kretnice, uporabljene v ključavnicah s prožnim vpetjem, imajo utora na zgornji strani hrbta (*sl. 5.11*). Od predlagane sheme odstopajo kretnice z najdišča Burgstall Pfaffstätt. Tudi če odmislimo datiranje, je nenavadna prisotnost samo enega utora. Manjka distalni utor, ki omejuje gibanje kretnice ob zaklepanju, kar pa ni odločilnega pomena za delovanje ključavnice.

Ključavniške kretnice v arheoloških kontekstih niso zastopane tako pogosto kot pripadajoči ključi. Vzrok za takšno stanje lahko iščemo v dejstvu, da je ključ privlačnejši predmet. Ključ je imel že v srednjem veku tudi simbolno vrednost, kar dokazuje na primer podoba sv. Petra kot nebeškega ključarja na številnih poznosrednjeveških upodobitvah (*sl. 5.12*). Tako so hišni gospodarji in predvsem cerkve pogosto hranile ključe, katerih ključavnic že zdavnaj ni bilo več. Na primer v cerkvi Sv. Marije na Bitnjah v Bohinju hranijo tri tipološko zgodnjenovoveške ključe. Verjetno so jih uporabljali pri porokah, kjer je nevesta dobila v

bolt from moving, and at the same time prevented the turning of the key from pushing it upwards and throwing it out of its position. Only bolts used in locks with spring mounting had grooves on the upper part of the back *(fig. 5.11*). The bolts from Burgstall Pfaffstätt differ from the proposed scheme. Even if we neglect their date of origin a single groove is highly unusual. The lock lacks the groove that restricts the movement of the mechanism during locking and unlocking; however, this is not of decisive importance for the lock to function properly.

Parts of rotary locks are not found as often as keys. One of the reasons for this is that a key is a more attractive object. Already in the Middle Ages keys had a symbolic value, which can be seen for instance on numerous Late Medieval depictions of St. Peter as the celestial key holder (*fig. 5.12*). Thus masters of the home and especially churches kept keys for locks that ceased to exist ages ago. For instance the church of St. Mary on Bitnje in Bohinj still keeps three typologically Early Post-medieval keys. Most likely they were used during wedding ceremonies, in which the bride received three keys to hold in her hand, with which she symbolically took over the household (information supplied by Andrej Pleterski). Apart from this, keys attracted the attention of collectors already early on, which is also shown by the above mentioned finds from Bled. It is certain that locks were just as common as the keys.

However, the described mechanisms were not solid enough to lock the doors that led to the castle inner bailey. This was protected by a heavy iron *bolt* (*t. 7: 14*) that moved along two iron *guides* (*t. 7: 1, 2*). The guides were rammed directly through the door and the overreaching ends were bent. With this the thickness of the doors can be estimated to approximately 8.8 centimetres. The flat shank welded at a right angle to the iron bolt prevented the uninvited removal of the bolt from its locked position. The crank had a rectangular hole, which was most possibly placed across a loop that could be locked by a hanging lock. However, no hanging locks or keys for such locks were found at Mali grad.

The lock mechanisms and the bolt from Mali grad belong to the stratigraphic phase 4b.

5.3. TOOLS AND NAILS

Five metal tools were documented at Mali grad. Three of them are tools for working in the field or in the woods (for a detailed description see e.g. Grafenauer 1970, 201–206; Brmbolić 2000, 33–43; Krauskopf 2005, 7–80), while two were tools used by craftsman.

Sickle (*t. 3: 1*) is one of the earliest tools to be used in fields. By the Middle Ages (if not before) the sickle was no longer used merely for harvesting wheat (*fig. 5.13*), but also for performing various tasks in castle gardens. Therefore sickles can often be found in castles, even

roke tri ključe, s čimer je simbolno prevzela gospodinjstvo (ustna informacija Andrej Pleterski). Poleg tega so ključi že zgodaj pritegnili pozornost zbiralcev, kar ne nazadnje dokazujeta tudi zgoraj omenjeni blejski najdbi. Vsekakor so bile kretnične ključavnice v času in prostoru razširjene enako kot "kretnični" bradati vrtljivi ključi.

Vendar opisani mehanizmi niso bili dovolj trdni za neposredno zapiranje vrat grajskega dvorišča. Ta so bila zavarovana s težkim železnim *zapahom* (*t. 7: 14*), ki se je pomikal po dveh železnih *vodilih* (*t. 7: 1, 2*). Vodili sta bili zabiti neposredno skozi vrata, presegajoče konice pa zakrivljene. Tako lahko posredno rekonstruiramo debelino vrat, približno 8,8 centimetra. Ko je bil zapah nameščen, ga je bilo mogoče zakleniti. Temu je služil ploščat krak, privarjen pravokotno na železen zapah. Krak ima pravokotno predrtino, ki je bila verjetno nameščena čez zanko, to pa je zaklepala ključavnica obešanka. Najdb ključavnic obešank ali ključev za takšne ključavnice na Malem gradu ni.

Ključavniški kretnici in zapah z Malega gradu stratigrafsko sodijo v fazo 4b.

5.3. ORODJE IN ŽEBLJI

Na Malem gradu je bilo dokumentiranih pet kovinskih predmetov, ki jih uvrščamo v kategorijo orodje. Pri treh gre za poljedelsko orodje in orodje za obdelavo lesa (za natančnejšo delitev glej npr. Grafenauer 1970, 201–206; Brmbolić 2000, 33–43; Krauskopf 2005, 7–-80), pri dveh za rokodelsko orodje.

Srp (*t. 3: 1*) sodi med najstarejša poljedelska orodja. Najpozneje v srednjem veku so srp uporabljali ne samo za žetev žita (*sl. 5.13*), temveč tudi za različna opravila na grajskih vrtovih. Zato je srp pogosta najdba na gradovih, tudi tistih, na katerih ni najti drugih poljedelskih orodij (Krauskopf 2005, 79). Zaradi uporabnosti v poljedelstvu ni presenetljivo, da ima srp določeno vlogo tudi v verovanjih. Tako so na primer srednjeveški Srbi odganjali demone tudi tako, da so srp položili v dojenčkovo zibko ali na prsa mrtveca (Brmbolič 2000, 41), kar pojasnjuje najdbe srpov v grobovih iz časa celotnega srednjega veka (npr. Reichenbach 2004). Oblika srpa se je od pozne antike dalje le malo spreminjala. Tipološko razlikujemo srpe glede na obliko rezila in prehod rezila v trn (Brmbolič 2000, 41). Še vedno ni popolnoma jasno, kdaj se je iz srpa razvila kosa, kakršna je upodobljena leta 855 v rokopisu z otoka Reichenau na Bodenskem jezeru (Comet 2000, 156).

Na Malem gradu je ohranjen le odlomek srpa, in sicer del trna in del rezila (*t. 3: 1*), zato ne moremo najti natančnih primerjav. Na splošno bi ta srp lahko umestili v skupino I A ali I B po Brmboliću (2000, Tab. 5), kamor sodijo tudi trije primerki iz beograjskega Narodnega muzeja (Cerović 2001, Tabla 2: 12–14). Za te je značilno zaobljeno rezilo v obliki črke "C". Ta opredelitev nam

where no other field tools were found (Krauskopf 2005, 79). Due to its versatility when used for field work, it is hardly surprising that the sickle also played a certain role in beliefs. For instance, Medieval Serbs used to place a sickle into a baby's crib or upon the chest of a deceased, believing that this will scare the evil demons (Brmbolič 2000, 41); the latter explains the finds of sickles in Middle Age graves (e.g. Reichenbach 2004). The shape of the sickle remained more or less the same from Late Antiquity onwards. Typologically we differentiate sickles according to the shape of their blade and the transition from the blade into the tang (Brmbolič 2000, 41). It is still not clear when the scythe developed from the sickle; however a scythe is depicted in the manuscript from the island of Reichenau on the Boden Lake as early as 855 (Comet 2000, 156).

At Mali grad a single fragment of a sickle is preserved: a part of the tang and a part of the blade (*t. 3: 1*), which makes it impossible to find close analogies. According to the classification by Brmbolić (2000, Tab. 5) this sickle could be placed into group I A or I B, which also include three examples from the Belgrade National Museum (Cerović 2001, Tabla 2: 12–14). Sickles in these two groups have a typical rounded blade in the shape of the letter 'C'. This definition helps us differentiate the Mali grad fragment from type 1 Б, the blade of which bends sharply after the first quarter. This group seems to be more common in the Eastern part of Central Europe, for instance in the Czech Republic and Slovakia (e.g. Slivka 1981, Obr. 4: 5, 6, 10–13). Similar to the Mali grad sickle are the ones found in the French fort Colletière à Charavines, Isère (Colardelle, Verdel 1991, Fig. 25) and the Lower Saxony



Sl. 5.13: Herrad von Landsberg, *Hortus deliciarum*, 12. stoletje: žetev žita s srpom (po Wand 1991, Abb. 41).
Fig. 5.13: Herrad von Landsberg, *Hortus deliciarum*, 12th century: harvesting wheat with a sickle (taken from Wand 1991, Abb. 41).

pomaga v toliko, da malograjski odlomek ločimo od tipa 1 Б, katerega rezilo se po prvi četrtini ostro zalomi. Za slednje se zdi, da so pogostejši v vzhodnem delu srednje Evrope, na primer na Češkem in Slovaškem (npr. Slivka 1981, Obr. 4: 5, 6, 10–13). Podobna malograjskemu sta tudi na primer srp s francoske utrdbe Colletière à Charavines, Isère (Colardelle, Verdel 1991, Fig. 25) in srp s spodnjesaškega gradu Hünenburg (Heine 1991, Abb. 57), oba datirana od 11. do 12. stoletja. Na drugi strani se malograjski odlomek ne razlikuje veliko od odlomka srpa z ovalne pastirske bajte na Veliki planini, ki je bila v uporabi od 16. do morda začetka 18. stoletja (Železnikar 2006, 217, slika 8: 3).

Na Malem gradu je srp nezanesljivo stratigrafsko opredeljen v fazo 4b.

Naslednje orodje z Malega gradu, ki ga uvrščamo med poljedelska, je *otka* (*t. 3: 3*). Otka je specializirano orodje, namenjeno čiščenju orala z lemežnicami. Skupni slovanski izraz kaže, da so Slovani že ob koncu zgodnjega srednjega veka poznali vse vrste za srednji vek značilnega poljedelskega orodja (Grafenauer 1970, 209). Gre za nasadilno orodje s tulastim nasadilom in ploščato delovno ploskvijo, podobno motiki. Tipološko se orodje v času srednjega veka ni veliko spreminjalo, značilna sta topi kot – v stranskem pogledu – med tulastim nasadilom in delovno ploskvijo ter nesomerna površina delovne ploskve (prim. Pleterski 1987, 270–271 in sl. 27). Predmet z Malega gradu tej definiciji ustreza, le o nesomernosti zaradi slabe ohranjenosti ne moremo soditi.

Od otk iz Blejskega kota (Pleterski 1987, sl. 27) se malograjska razlikuje po tekočem prehodu iz nasadišča v delovno ploskev. Zelo podoben predmet najdemo že med poljedelskimi orodji iz rimskih Pompejev (Gaitzch 1985, Tafel VI). Podoben srednjeveški predmet s slovaškega najdišča Levice je interpretiran kot vejnik (Habovštiak 1971, Obr. 2: 3). Kot otka sta opredeljena predmet z nekoliko daljšim tulom, ki je bil najden na slovaškem najdišču Vlčkovcie v objektu, datiranem v drugo polovico 13. stoletja (Hanuliak 2002, Obr. 7: 13), in polovico večji predmet z madžarskega najdišča Edelény-Borsod, datiran v 10. stoletje (Wieczorek, Hinz 2000, 65, 03. 01. 04).

Vendar obstaja pomislek, da je ukrivljenost malograjskega predmeta posledica poškodbe. V tem primeru imamo lahko opravka s predmetom, običajno opredeljenim kot dleto. Te je tipološko skoraj nemogoče datirati, pogosto pa jih povezujemo s tesarskim orodjem, kot na primer na švicarskem gradu Madeln (Marti, Windler 1988, 115, Taf. 17: 196). Takšne predmete najdemo v drugi polovici 9. stoletja v Brnu na Češkem (Jordánková, Loskotová 2006, Obr. 4: 7, 8) in na nemškem najdišču Jenalöbnitz v naselbinah, datiranih od 10./11. stoletja dalje oziroma v 14. in začetek 15. stoletja (Stoll 1993, 80 in Tafel 23: 8–10; prim. Krauskopf 2005, 184). Zgornjeavstrijsko gradišče Burgstall Pfaffstätt, kjer najdemo podoben predmet, je datirano z nekaterimi najdbami v 9. in 10. stoletje (Pollak 2005, Tafel 12: 116).

castle Hünenburg (Heine 1991, Abb. 57), both of which have been dated to the 11th or 12th century. On the other hand the Mali grad fragment does not differentiate greatly from the fragment found at the oval hut on Velika planina, which was in use from the 16th to the beginning of the 18th century. (Železnikar 2006, 217, slika 8: 3).

The sickle from Mali grad is stratigraphically unreliably dated into phase 4b.

The next field tool from Mali grad is the *plough-staff* (*t. 3: 3*), a specialised tool used for cleaning the plough. The universal Slav name shows that the Slavs were using all typical field tools known in the Middle Ages already at the end of the Early Middle Ages (Grafenauer 1970, 209). This is a helved tool with a stick handle and a flat working surface, similar to a hoe. Typologically the tool changed little during the Middle Ages; the blunt angle – when viewed from the side – between the stick and the working surface and the asymmetrical area of the working surface are typical for this tool (cf. Pleterski 1987, 270–271 and sl. 27). The object from Mali grad fits this description, even though - due to its poor condition - one can only guess as regards the asymmetrical working surface.

The plough-staff found in Mali grad differs from the ones found in Blejski Kot (Pleterski 1987, sl. 27) by its smooth transition from the joint towards the working surface. A similar object can be found already amongst the field tools from Pompeii (Gaitzch 1985, Tafel VI). A similar Medieval object found in the Slovakian site of Levice was interpreted as a billhook (Habovštiak 1971, Obr. 2: 3). A tool with a slightly longer handle, found in the Slovakian site of Vlčkovcie in a building from the second half of the 13th century (Hanuliak 2002, Obr. 7: 13), and a 50% larger tool from the Hungarian site Edelény-Borsod, dated to the 10th century (Wieczorek, Hinz 2000, 65, 03. 01. 04) were described as plough-staffs.

However, there is a certain doubt that the shape of the Mali grad object is a result of damage. In this case the object would be referred to as a chisel. Chisels are almost impossible to date typologically and are often linked to carpenter's tools, for example the chisel from Madeln castle, Switzerland (Marti, Windler 1988, 115, Taf. 17: 196). Such objects were found in the second half of the 9th century in Brno, Czech Republic (Jordánková, Loskotová 2006, Obr. 4: 7, 8) and Jenalöbnitz, Germany, in settlements dating from 10th century onwards right to the beginning of the 15th century (Stoll 1993, 80 and Tafel 23: 8–10; cf. Krauskopf 2005, 184). The Upper Austrian site Burgstall Pfaffstätt, where a similar object was found, is dated with some finds into the 9th and 10th centuries (Pollak 2005, Tafel 12: 116).

We are therefore dealing with an object, the purpose and date of which can not be precisely defined. It is certain that the object can be described as a tool; it is only uncertain whether it was used for working in the field or for working with wood.

Opraviti imamo torej s predmetom, katerega namembnosti in datacije ne moremo zanesljivo opredeliti. V vsakem primeru pa predmet lahko opišemo kot orodje, bodisi poljedelsko bodisi za obdelavo lesa.

Otke z Malega gradu ni bilo mogoče zanesljivo stratigrafsko opredeliti.

Med orodje za obdelavo lesa sodi tudi *železna zagozda* (*t. 3: 2*). Gre za gozdarsko orodje oziroma orodje za grobo obdelavo lesa, kakršna so pogosta na ministerialnih gradovih. Mizarska in tesarska orodja pa so pogosta na vseh gradovih (Krauskopf 2005, 75–76). Zagozde različnih velikosti se uporabljajo za podiranje dreves in cepljenje debel. V Yorku so srednjeveške zagozde dolge od 3 do 10,4 centimetra. Gre za enostavno kovan železen predmet, ki spominja na rezilo sekire. V prerezu se v spodnji tretjini zoži v rezilo. Gledano s širše plati je predmet pravokoten ali pa se od glave proti rezilu rahlo oži. Na glavi so pogosti sledovi uporabe (Ottaway, Rogers 2002, 2728), zabijanja s težkim kladivom ali sekiro. Kot primerjavo za malograjski predmet lahko navedemo zagozdi iz Yorka iz stratigrafskih kontekstov, datiranih v 12. do 13. oziroma 11. do 12. stoletje (Ottaway, Rogers 2002, 2726: 8170, 8171).

Železna zagozda z Malega gradu je nezanesljivo stratigrafsko opredeljena v fazo 4b.

Kljub navidezni brezobličnosti lahko bikoničen paličast predmet precej zanesljivo opredelimo kot *šilo* (*t. 6: 6*). Šilo je vsestransko orodje, ki se je s časom le malo spreminjalo. Uporabljalo se je pri obdelavi kovin, na primer kot prebijalo za izdelavo cedila (*t. 7: 4*), kot čevljarsko, tesarsko ali kamnoseško orodje. Na angleškem najdišču York je v srednjeveških in zgodnjenovoveških kontekstih dokumentiranih sedemnajst šil dolžine od 6,5 do 14,4 centimetra. Značilnosti šila, kakršno je malograjsko, so: pravokotni prerez trnastega nastavka za držaj, odebeljeno rame na prehodu iz držaja v delovno konico in delovna konica okroglega prereza. Pravokoten prerez trna in rame omogočata dovolj trdno nasaditev lesenega držaja, okrogel prerez konice omogoča izdelavo okroglih lukenj (Ottaway, Rogers 2002, 2722).

Šilo z Malega gradu stratigrafsko sodi v fazo 4a.

Za predmet, ki ga interpretiramo kot *zlatarsko orodje* (*t. 6: 7*), v srednjeveških kontekstih nismo našli dobrih primerjav. Gre za slok koničast predmet s ploščatim zaključkom. Zašiljena spodnja tretjina je drobno prečno narebrena in je bila uporabna kot pila, vmesni del kot držaj, zgornji ploščat okrogel zaključek pa kot loparček. Ta bi lahko služil za natančno odmerjanje, na primer zlatega prahu. Podoben je nekoliko masivnejši predmet iz samostana na ženskem otoku (Fraueninsel) na nemškem jezeru Chiemsee, ki je opisan kot žlebilo oziroma strugalo (nem. *Hohleneisen*). Predmet je stratigrafsko datiran v 8. do 11. stoletje (Danheimer 2005, Taf 81: Inv. t. 696A). Po splošni obliki naš predmet nekoliko spominja na kozmetične pripomočke za čiščenje ušes in zob iz visoko- in poznosrednjeveškega Londona (Egan,

The plough-staff from Mali grad could not be stratigraphicaly placed.

Iron wedges (*t. 3: 2*) also belong amongst tools for wood working. This is a lumberjack's tool or a tool for rough wood working, and can commonly be found at ministerial castles. Carpenter tools were also commonly found at castles (Krauskopf 2005, 75–76). Different size wedges were used for cutting down trees and splitting timber. The medieval wedges from York were between 3 and 10.4 centimetres long. These wedges were simple forged iron objects similar to an axe blade. Looking at its cross-section it narrows into a blade in the lower third. As seen from the wider side the object is rectangular or narrows down from the head to the edge of the blade. The head often shows traces of being repeatedly hammered (Ottaway, Rogers 2002, 2728). The object from Mali grad can be compared to the wedges from York that belong to stratigraphic contexts dating to 12th and 13th or 11th and 12th centuries (Ottaway, Rogers 2002, 2726: 8170, 8171).

The iron wedge from Mali grad is unreliably stratigraphically placed into phase 4b.

Regardless of the seeming shapelessness the stick like object with two points can be relatively safely defined as an *awl* (*t. 6: 6*). An awl is a universal tool that has changed little over time. It was used for working with metal, for instance as a hole puncher when making a strainer (*t. 7: 4*), or as a shoemaker's, carpenter's or stonemasons' tool. Seventeen Medieval and Early Post-medieval awls with lengths ranging between 6.5 and 14.4 centimetres were documented at York, England. The characteristics of the Mali grad awl are as follows: a rectangular cross-section of the tang upon which the handle is mounted, a thickened shoulder on the transition from the handle to the working point and a working point with a round cross-section. The rectangular cross-section of the tang and shoulder allow for the wooden handle to be firmly attached, while the circular cross-section of the point makes it possible to punch round holes (Ottaway, Rogers 2002, 2722).

The awl from Mali grad stratigraphically belongs to phase 4a.

We have failed to find solid medieval analogies for the object that is interpreted as a *goldsmith's tool* (*t. 6: 7*). This is a narrow pointed object with one flat end. The pointed lower third is delicately ribbed (transversally) and could be used as a file, the intermediate part as a handle, while the upper flat round ending could be used as a peel. It could have served for precise portioning, for instance of gold dust. Similar is the slightly larger object from the monastery on the Fraueninsel on the German Lake Chiemsee, which is described as a gouge (German *Hohleneisen*). The object is stratigraphically dated between the 8th and 11th century (Danheimer 2005, Taf 81: Inv. t. 696A). The shape of our object is reminiscent of the cosmetic instruments for cleaning ears and teeth from High and Late Medieval London (Egan, Pritchard 2002, 377–380), which differ in both key elements. The peel

Pritchard 2002, 377–380), ki pa se razlikujejo po obeh ključnih elementih. Lopar je vbočen, na koničastem delu pa ni pile. Tudi medeninasti paličasti odlomek z zajemalko s švicarskega najdišča Ödenburg, ki je datiran v 11. in 12. stoletje (Tauber 1991, 103, Abb. 86: 562), je podobne oblike.

Pri interpretiranju namembnosti našega predmeta smo si pomagali s sestavo poznoantične zakladne najdbe s spodnjeavstrijskega najdišča Buschberg (Szameit 1997, 235–239 in Taf. 2: 1, 2, 6, 7; 3: 4, 6). Tam so med drugim rokodelskim orodjem dve pili, ena z loparjem in ena z zajemalko, ter rezalne klešče oziroma škarje, katerih zaključka držajev sta prirejena v loparje. To je orodje za opravljanje drobnih kovaških del, ki ga lahko imenujemo tudi zlatarsko orodje. Malograjsko orodje združuje namembnost drobne pile štirikotnega prereza in drobnega loparja, za kar je zlatar z Buschberga uporabljal različni orodji (prim. Szameit 1997, Taf. 2: 2, 6).

Predmet z Malega gradu stratigrafsko sodi v fazo 4b.

Med malograjskimi najdbami je tudi večje število *žebljev*. O njihovi namembnosti govorita oblika in velikost (prim. Predovnik 2003, 88). Pri obliki je najpomembnejša glavica, ki je sicer res vedno potrebna za zabijanje, vendar ima potem lahko tudi krasilen (pohištvo) ali uporaben (čevlji, podkve) pomen. Pri opredeljevanju oblik smo sledili shemi, ki jo za blejsko Pristavo pripravlja A. Pleterski. Izpovedna je tudi dolžina žebljev. Žeblji dolžine 10 centimetrov in več so verjetno vezali stavbne elemente, podkovski žeblji ne presegajo dolžine 5 centimetrov (Kaźmierczyk 1978, Rys. 44; Predovnik 2003, 88), še manjši so žeblji za podkovanje čevljev (Železnikar 2006, 216).

Kljub temu je opredeljevanje namembnosti pogosto nezanesljivo, zato vse žeblje obravnavamo na tem mestu.

Na Malem gradu je bil dokumentiran tudi predmet (*t. 7: 5*), ki na prvi pogled spominja na rimskodobne puščične osti (Zimmermann 2000, 74, tip D1–1). Vendar se od teh razlikuje po krajši in masivnejši "konici". Po obliki spominja na zgodnjenovoveške žeblje za okovanje cokel (Železnikar 2006, slika 5: 9), ki pa so manjši in imajo krajši trn. Zelo podoben je podkovski žebelj s Poljske, ki pa je ploščat (Kaźmierczyk 1978, Rys. 44: 11). Šele primerjava z razstavnim predmetom iz Kovaškega muzeja v Kropi razkrije, da gre najverjetneje za posebno vrsto *podkovskega žeblja s piramidno glavo*. S takšnimi žeblji so podkovali konje, ki so hodili po zaledenelih površinah. Zato je razumljivo, da so najdbe takšnih žebljev pogoste na srednjeveških planinah (Tone Cevc, ustna informacija). Šibkost navedene interpretacije je dolžina trna žeblja, 5 centimetrov, kar je za centimeter več, kot naj bi dosegali trni podkovskih žebljev.

Med podkovske žeblje uvrščamo skupino pet *podkovskih žebljev s piramidno glavo* (*t. 7: 7*) dolžine okoli 4 centimetre. Šest je *žebljev za čevlje* (*t. 7: 8, 9*) dolžine do 3,3 centimetra.

is concave and there is no file on the pointed end. The brass stick-like fragment with the ladle from Ödenburg in Switzerland, dating to the 11th and 12th century (Tauber 1991, 103, Abb. 86: 562) also has a similar shape.

As we were trying to ascertain how the object was used we were aided by the Late Antiquity treasure find in Buschberg, Lower Austria (Szameit 1997, 235–239 and Taf. 2: 1, 2, 6, 7; 3: 4, 6). At this location a whole array of craftsman tools was found, amongst others also two files, one with a peel and one with a ladle, and cutting pliers or scissors, the handle ends of which were used as peels. This is a tool for performing small forging works and could be considered a goldsmith's tool. The tool from Mali grad is a combination of two different goldsmith's tools from Buschberg: a small file with a rectangular cross-section and a small peel (cf. Szameit 1997, Taf. 2: 2, 6).

The Mali grad object stratigraphically belongs into phase 4b.

A large number of nails were also found at Mali grad. Their use can be deducted from their shape and size (cf. Predovnik 2003, 88). The most information can be obtained from the shape of the nail's head. It is of course always necessary for hammering, but it can also have a decorative (furniture) or functional (shoes, horseshoes) purpose. For describing the shapes we used the scheme that is currently being prepared by A. Pleterski. The length of the nail is also informative as regards its functionality. Nails that exceed 10 centimetres in length were most likely used to join building elements, horseshoe nails do not exceed 5 centimetres in length (Kaźmierczyk 1978, Rys. 44; Predovnik 2003, 88), while nails used for shoes are even shorter (Železnikar 2006, 216).

However, as the use of the Mali grad nails can not be precisely determined, they are dealt with as a whole.

At first glance the first Mali grad nail (*t. 7: 5*) is reminiscent of a Roman arrow tip (Zimmermann 2000, 74, tip D1–1). However, the Mali grad nail has a shorter and heavier tip. According to its shape it is reminiscent of the Early Post-medieval nails for clogs (Železnikar 2006, slika 5: 9) however they are smaller and have a shorter point. Very similar is also the horseshoe nail from Poland, which differs in the fact that it is flat (Kaźmierczyk 1978, Rys. 44: 11). Only when compared to the exhibited object from the Blacksmith's museum in Kropa could it be concluded that it is most likely a special type of horseshoe *nail with a pyramid shaped head*. Such nails were used to attach horseshoes onto horses that walked on ice, which makes it clear why such finds were common on hills used during the Middle Ages (information supplied by Tone Cevc). The weakness of this explanation is the length of the nail, which measures 5 centimetres - a centimetre more than horseshoe nails supposedly reach.

The five approximately 4 centimetres long *horseshoe nails with a pyramid top* (*t. 7: 7*) were used as horseshoe nails. Also discovered were six *nails for shoes* (*t. 7: 8, 9*) that measured up to 3.3 centimetres in length.

Žeblji s pravokotno glavo dolžine do 6 centimetrov (*t. 7: 6*) so verjetno služili spenjanju manjših stavbnih elementov, tisti dolžine približno 10 centimetrov (*t. 7: 10*) pa za spenjanje večjih stavbnih elementov, na primer desk za strešno kritino (prim. Wiethold, Meyer 2003, 80, Abb. 4, Typ E).

Nobenega od žebljev z Malega gradu ni bilo mogoče stratigrafsko opredeliti.

5.4. OPRAVA JEZDECA IN OPREMA KONJA

Oprava jezdeca in oprema konja predstavljata skupaj s konjem in jezdecem neločljivo celoto. Šele z obravnavo celote, od izurjenosti jezdeca do velikosti konja, od oblike sedla do načina jezdenja in bojne tehnike, lahko razumemo razvoj posameznih sestavnih delov oprave jezdeca in opreme konja. Zato smo pri opisovanju posameznih predmetov izhajali iz nekaterih tovrstnih študij (npr. Hyland 1996; Karo 2003; Clark 2004a).

Najprej moramo opozoriti na položaj jezdeca na konju (prim. Kirpičnikov 1973, ris. 30). Ta je bil ključen za bojno tehniko in je hkrati vplival na obliko številnih delov oprave jezdeca in opreme konja. Z uvedbo stremen je konjeniška taktika bojevanja doživela pravo revolucijo (Hyland 1996, 30). Srednjeveški vitez je med bojem z mečem bolj stal na stremenih kot sedel v sedlu. Takšen položaj mu je na eni strani omogočal močnejši udarec z mečem in trdnejši položaj v sedlu z naperjeno sulico; na drugi strani je tog položaj na konju povzročil številne neprijetnosti med ježo. Sočasni perzijski in mavrski bojevniki so imeli stremena nameščena tako, da so jahali s pokrčenimi nogami, kar jim je omogočalo bolj dinamičen položaj in tesnejši stik s konjem (Hyland 1996, 8–10). Velika sila nenadnega udarca ob trku nasproti si drvečih vitezov je hkrati botrovala vzreji vse večjih bojnih konj (Hyland 1996, 58).

Vendar te rekonstrukcije ježe temeljijo izključno na slikovnih virih, ki prikazujejo polno oboroženega viteza v boju (France 1999, 25). Vemo pa, da je imel vitez na bojnem pohodu vsaj dva konja (France 1999, 61), poleg velikega, t. i. hladnokrvnega, tudi manjšega, t. i. toplokrvnega. Prvega za boj in drugega za ježo na pohodu (prim. Hyland 1996, 8). Mar ni torej upravičena domneva, da je tudi srednjeveški vitez znal jezditi dinamično in usklajeno s konjem? Toga ježa na večjem konju je bila pač primernejša za boj.

Med malograjskimi predmeti v opravo jezdeca lahko uvrstimo le *ostrogo s trnom* (*t. 3: 4*). Ostroge so bile za srednjeveške moške veliko več kot le uporaben predmet: bile so modni dodatek in statusni simbol; pozlačene so bile prerogativ viteštva. Jezdili so že od malih nog, kar dokazujejo nekatere najdbe manjših ostrog. Iz srednjeveških virov izvemo, da so ločevali vojaške ostroge od ostrog za viteške turnirje, česar pa v arheološkem gradivu še ne

Nails with a rectangular head measuring up to 6 centimetres in length (*t. 7: 6*) were most likely used to join smaller building elements, while those that measured approximately 10 centimetres in length (*t. 7: 10*) were most likely used for joining larger building elements, for instance planks for the roof tiling (cf. Wiethold, Meyer 2003, 80, Abb. 4, Typ E).

None of the nails from Mali grad could be stratigraphically defined.

5.4. HORSE EQUIPMENT AND RIDER'S FITTINGS

Together with the horse and the rider the horse equipment and the rider's fittings represent an inseparable whole. Only by treating the whole, from the skills of the rider to the size of the horse, from the shape of the saddle to the ridding style and battle technique can the development of the individual parts be understood. This is why certain studies with a holistic approach (e.g. Hyland 1996; Karo 2003; Clark 2004a) were used to help us describe individual objects.

First we have to look at the position of the rider in the saddle (cf. Kirpičnikov 1973, ris. 30). To a great extent this influenced the battle technique as well as the shape of numerous parts of the rider's fittings and the horse's equipment. With the introduction of stirrups the cavalry tactics experienced a revolution (Hyland 1996, 30). During a battle with swords the medieval knights most commonly stood in their stirrups instead of sat in their saddles. On one hand such a position enabled a more powerful swing with the sword and a firmer position in the saddle when armed with a spear; on the other hand a stiff position caused the ride to be greatly discomforting. The Persian and Moor warriors from the same period had their stirrups placed so that they could ride with bent legs, which gave them a more dynamic position and a closer contact with the horse (Hyland 1996, 8–10). The great force released during a sudden impact as the two opposing knights collided also lead to the breeding of increasingly larger battle horses (Hyland 1996, 58).

However, these reconstructions of the various ridding styles are based exclusively on picture sources that show fully armoured knights (France 1999, 25). But, we know that a single knight took at least two horses on his battle expeditions (France 1999, 61): a large horse, the so-called cold-blooded one and a smaller one, known as the warm-blooded one. The first was used during the battle, while the second was ridden to the battle (cf. Hyland 1996, 8). Would it therefore be unreasonable to assume that the Medieval knights were able to ride dynamically and in harmony with the horse, i.e. with bent legs? The rigid position on the larger horse was merely better suited to the battle conditions.

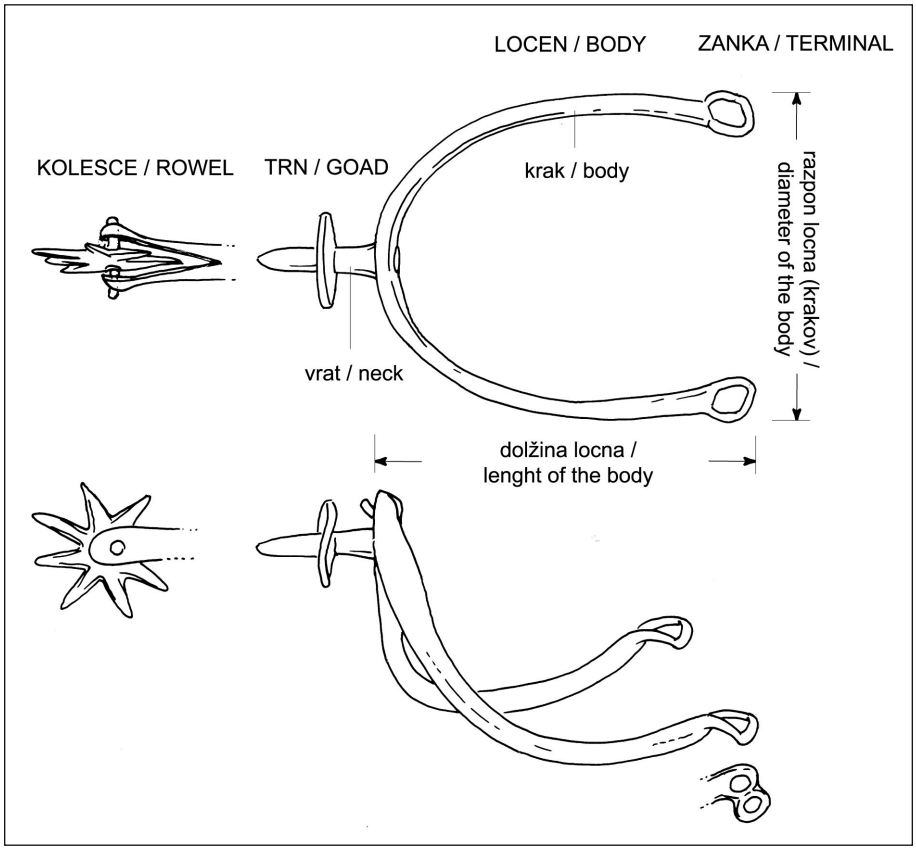
znamo razločiti. Ženske pa so ostroge uporabljale le kot jezdni pripomoček, saj se je dolgo krilo pri hoji zapletalo vanje in jih hkrati skrivalo (Ellis 2004, 124).

Ostroge so poznali že antični Grki in Rimljani. Zaradi težav pri zajahanju konja so nosili le ostrogo na levi nogi. Ko so Franki v zgodnjem srednjem veku prevzeli stremena, so pričeli uporabljati pare ostrog (Gamber 2000a). Za visokosrednjeveške ostroge je značilen trn okroglega ali kvadratnega prereza na tankem vratu. Trn in locen sta bila– v stranskem pogledu – sprva vodoravna. Že v 11. stoletju je trn glede na locen lahko nameščen pod rahlim kotom. Do sredine 13. stoletja so vse ostroge močno upognjene, tako trn kot tudi locen. Upognjenost locna je pomenila, da se je trn premaknil s pete v višino gležnjev. Okoli leta 1240 se pojavijo ostroge s kolescem. Sprva majhna kolesca postanejo v 14. stoletju precej večja. Za 14. in 15. stoletje so značilna kolesca na dolgem vratu, saj je moral vitez z njimi seči pod verižni oklep konja. Slabše izurjeni konjeniki, ki so od sredine 16. stoletja dalje zamenjavali viteze, pa so zopet uporabljali praktične ostroge s kratkim vratom in ravnimi locni.

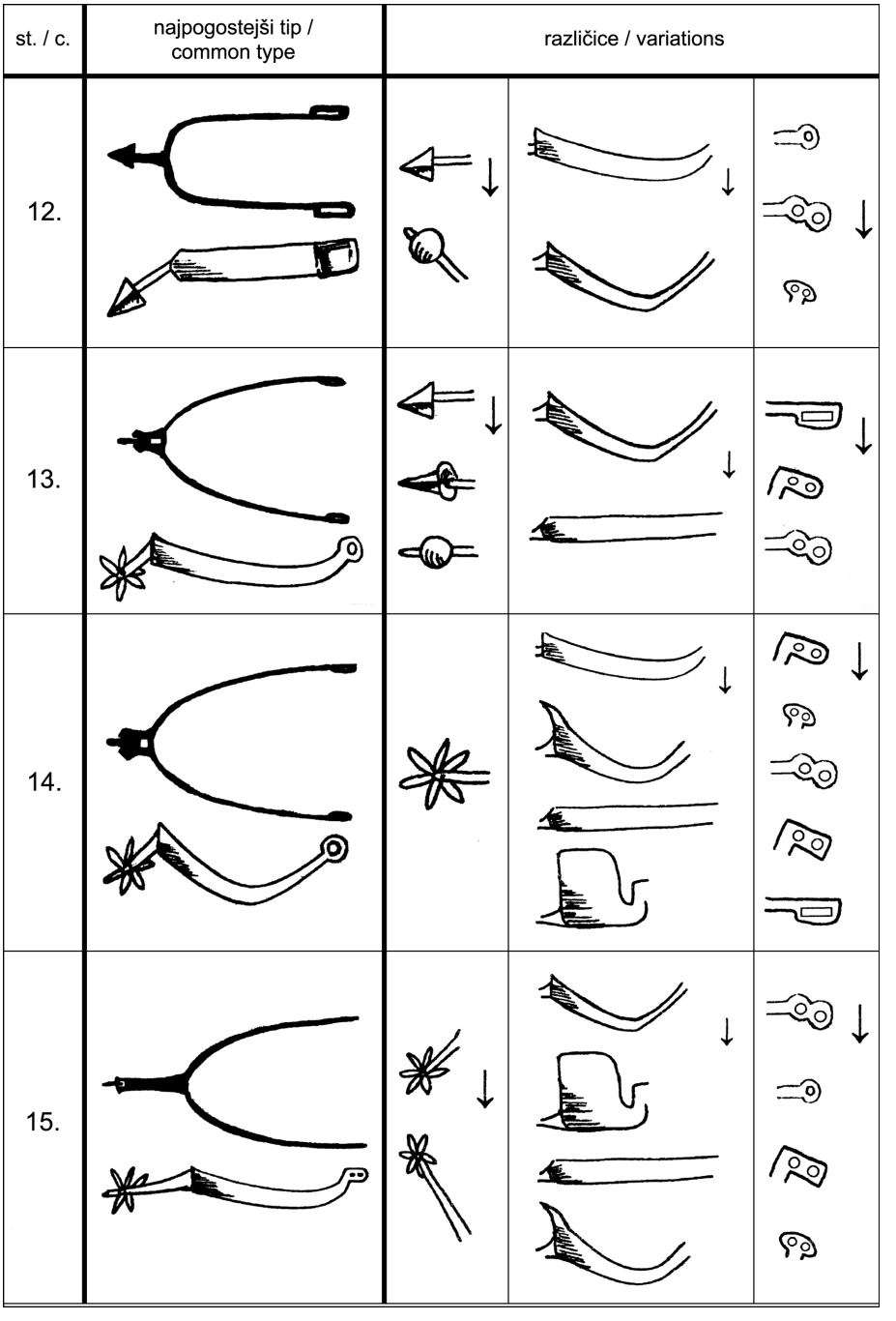
Ostroga je bila pripeta na čevelj z usnjenim jermenom, ki je bil pritrjen na zanki na koncu krakov locna. Dolg usnjen jermen je potekal pod čevljem skozi zanko drugega kraka locna do jermenske spone. Ta je bila pritr-

From all of the discovered objects from Mali grad only the *spur with the goad* (*t. 3: 4*) can be categorised as a part of the rider's fittings. For Medieval men spurs were much more than merely a functional object - they were a fashion accessory and a status symbol and as such gilded spurs were a prerogative of the knights. The discoveries of small spurs are proof that already young children rode horses. From medieval sources one can learn that military spurs were different from spurs used in tournaments, however the two can still not be differentiated in archaeological finds. Women used spurs only as a horse riding accessory, for otherwise they got caught into their long skirts. This also prevented the spurs from being a women fashion accessory as they were hidden beneath the skirts (Ellis 2004, 124).

Spurs were known already by Ancient Greeks and Romans; however due to the difficulties connected to mounting horses without stirrups they wore a spur only on the left leg. When the Franks started using stirrups in the Early Medieval Period, they started to use spurs in pairs (Gamber 2000a). High Medieval spurs have a goad with a round or rectangular cross-section placed at the end of a narrow neck. At first the goad and body were horizontal (when viewed from the side). Already in the 11th century the goad was placed at a slight angle



Sl. 5.14: Shema in poimenovanje najpomembnejših sestavnih delov ostroge s trnom ali kolescem (prim. Predovnik 2003, 82; Koóšová 2004, Obr. 1 in Obr. 2).
Fig. 5.14: Main parts of the spur with a goad or a rowel (cf. Predovnik 2003, 82; Koóšová 2004, Obr. 1 and Obr. 2).



Sl. 5.15: Tipološki razvoj ostrog od 12. do 15. stoletja (po Koóšovi 2004, tab. 1).
Fig. 5.15: Typological development of spurs between the 12th and 15th century (according to Koóšová 2004, tab. 1).

jena neposredno na prvo zanko ali kratek jermen, pritrjen na slednjo. Tak način pripenjanja je bil v uporabi nekako do sredine 14. stoletja. Pozneje, še dolgo v novi vek, je bila ostroga na čevelj pripeta z dvema jermenoma, enim pod čevljem in enim nad njim. Jermena sta bila pripeta na zanki s kavlji, jermenski sponi pa pritrjeni neposredno na zanki (*sl. 5.14*; prim. Ruttkay 1976, 345; Hyland 1996, 17; Gamber 2000a; Koóšová 2004, 526–527; Ellis 2004, 127–130).

in relation to the body. By the 13th century spurs had a strong bend in them, in their goad as well as body. The bend in the body meant that the goad moved higher up, from the height of the heel to the height of the ankle. Spurs with rowels appeared around 1240. At first the rowels were small but in the 14th century they grew in size significantly. In the 14th and 15th centuries rowels on long necks became the standard. This happened because the knight needed to reach the horse under its chain armour.

Ostrogo z Malega gradu torej lahko opišemo kot železno ostrogo s cilindričnim trnom z močno ukrivljenima locnoma brez ohranjenih ostankov okraševanja. Zanki sta izrabljeni, zato lahko sklepamo, da je bil predmet shranjen za morebitno popravilo ali predelavo. Takšne ostroge so bile najpogostejše v 12. in 13. stoletju (*sl. 5.15*; Koóšová 2004, Tab. 1), dolžina trna do 3 centimetrov je nekoliko pogostejša v 13. stoletju (Koóšová 2004, graf 5). Močno ukrivljeni locni prevladujejo šele v 14. stoletju, čeprav se pojavljajo že od 12. stoletja (Koóšová 2004, grafi 1, 4, 7, 10).

Toda kot smo omenili, ostroge so bile ne le modni dodatek, temveč tudi statusni simbol. Zato so bile na gradovih že v 13. stoletju najpogosteje v uporabi ostroge s kolescem (Koóšová 2004, tab. 2). Sklepamo torej, da je bila malograjska ostroga najverjetneje v uporabi v 12. stoletju, najpozneje pa pred pojavom ostrog s kolesci v prvi polovici 13. stoletja. Manj verjetna, a povsem možna je datacija v 11. stoletje, kar kažejo nekatere primerjave (npr. Labuda 1999, Obr. 4: 2).

Kot smo videli, je v tesni povezavi z uporabo ostrog tudi uporaba *stremen*. Prvotna stremena iz usnjenih jermenov so uporabljali Kitajci in ljudstva azijskih step od 2. st. pr. n. št. V zgodnjem srednjem veku so Avari v Evropo prinesli železna stremena, ki so s svojo okroglo obliko še posnemala usnjena (Gamber 2000b) in so bila prilagojena nomadski ježi (Ruttkay 1976, 353). V 8. stoletju so jih prevzeli Franki (Karo 2003, 22). Izvor francoske besede za streme *étrier* iz starovisokonemške besede *estrifa* s pomenom usnjen jermen (Karo 2003, 20) kaže, da so tudi v Evropi pred železnimi stremeni uporabljali usnjena. Prvotni pomen slovenske besede streme, s skupnim slovanskim izvorom, je *vrv* ali *trak* (Bezlaj 1995, 327) in dokazuje podoben razvoj stremena tudi pri Slovanih.

V zgodnjem srednjem veku so v vzhodni Evropi prevladovala okrogla ali ovalna stremena z izbočeno stopalko, prilagojena ježi s pokrčenimi nogami in mehkim obuvalom. V zahodni Evropi so se nato razvila polkrožna in trikotna stremena z ravno ali vbočeno stopalko, prilagojena jahanju z iztegnjenimi nogami. V 12. stoletju se je uveljavilo jahanje z močno naprej iztegnjenimi nogami, zato so stremena postala širša in trdnejša, z močnejšo zanko za jermena (Karo 2003, 23).

Železno streme z Malega gradu (*t. 3: 5*) je trapezoidne oblike z zaokroženimi vogali in rahlo izbočenim stopalnim delom. Kraka imata osemkotni prerez. Stopalko sestavljata ločeni ozki prečki pravokotnega prereza. Na spodnji strani stopalke sta dva izrastka (prim. *sl. 5.16*).

Dobre primerjave za malograjsko streme nismo našli. Še najbolj podoben je odlomek stremena s švicarskega gradu Madeln, ki pa nima izrastkov na spodnji strani (Marti, Windler 1988, 104, Taf. 15: 171). Po svoji osnovni obliki malograjsko spominja na zgodnjesrednjeveška stremena, npr. tip IV-3 po Ruttkayu (1976, Abb. 74), tip I-3 po Měchurovi (1983, tab. 1). Od teh se razlikuje po tekočem

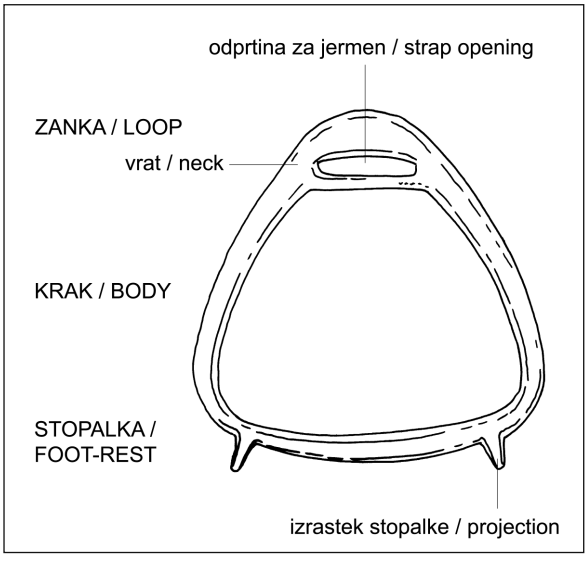
The poorly trained horsemen - who started substituting knights in the mid 16th century - returned to practical spurs with a short neck and straight bodies.

The spur was connected to the footwear with a leather strap that was attached to the terminals at the end of both shanks of the body. The long leather strap ran under the footwear through the terminal of the other shank all the way to the strap buckle. This was attached directly to the first terminal or to a short strap that was fastened to it. This is how it was attached until approximately the mid 14th century. Later, deep into the Post-medieval Period the spur was attached to the footwear with two straps, one under the footwear and one above it. The straps were attached to the terminals with hooks, and the strap buckles were attached directly to the terminals (fig. *5.14*; cf. Ruttkay 1976, 345; Hyland 1996, 17; Gamber 2000a; Koóšová 2004, 526–527; Ellis 2004, 127–130).

The spur from Mali grad can therefore be described as an iron spur with a cylindrical goad and a strongly bent body without any visible decorations. The terminals are worn out which leads us to believe that the object was preserved for repairs or a reworking. Such spurs were most common in the 12th and 13th centuries (*fig. 5.15*; Koóšová 2004, Tab. 1), while the 3 centimetre long goad was somewhat more common in the 13th century (Koóšová 2004, graf 5). The strongly curved bodies started to dominate as late as the 14th century, even though they appeared as early as the 12th (Koóšová 2004, graf 1, 4, 7, 10).

As already mentioned the spurs were not merely a fashion accessory but also a status symbol. As such, spurs with rowels were used in castles already in the 13th century (Koóšová 2004, tab. 2). We can conclude that the Mali grad spur was most probably used in the 12th century, but most certainly before the appearance of spurs with rowels in the first half of the 13th century. According to certain analogies (e.g. Labuda 1999, Obr. 4: 2) the Mali grad spur could even date to the 11th century.

As shown the use of spurs is closely linked to the use of *stirrups*. The first stirrups made from leather straps were used by the Chinese and the peoples from the Asian steppes since approx. 2nd centuty BC. In the Early Medieval Period the Avars brought iron stirrups into Europe. With their round shape they still mimicked the leather ones (Gamber 2000b), however they were adjusted to the nomadic style of horseback riding (Ruttkay 1976, 353). In the 8th century they were used by the Franks (Karo 2003, 22). The French word for stirrups (*étrier)* that derived from the Old High German word *estrifa* meaning leather strap (Karo 2003, 20) shows that leather stirrups were used across Europe before iron ones. The primary meaning of the Slovene word *streme*, with a common Slav origin, is *string* or *strip* (Bezlaj 1995, 327) and shows a similar development of the stirrup also amongst the Slavs.



Sl. 5.16: Shema in poimenovanje najpomembnejših sestavnih delov stremena (izrazi po Karo 2003, 8; prim. Pleterski 1987, 248–253).
Fig. 5.16: Main parts of the stirrup (terminology taken from Clark 2004a, 71-74).

prehodu krakov v zanko. Upoštevaje to lastnost je malograjsko streme še najbliže trapezoidnim ovalnim stremenom z ozko trapezoidno zanko, tip IV-3b po Ruttkayu.

Ta tip v osnovi sodi med klasična zahodnoevropska viteška stremena. Vendar sta trapezoidna oblika z zaokroženimi vogali in predvsem izbočena stopalka tipološko nomadska oziroma vzhodnoevropska elementa. Na drugi strani pa je iz oblike razvidna težnja k zelo močni zanki, kar naj bi bila značilnost zahodnoevropskih "bojnih" stremen.

Razvoj takšnih stremen A. N. Kirpičnikov vidi v hazarskih stremenih 9. do 11. stoletja, preko katerih so prišla tudi v sočasne grobove staromadžarskega horizonta. V slednjih se pogosto pojavljajo skupaj z dvoreznim mečem, kar kaže na način uporabe v boju (Ruttkay 1976, 355).

Streme z Malega gradu stratigrafsko sodi v fazo 4b.

Na Malem gradu sta bili najdeni dve konjski *podkvi* (*t. 3: 6, 7*). Zanesljivega odgovora na vprašanje, kdaj so ljudje začeli podkovati tovorne in jezdne živali, še vedno nimamo (prim. Drack 1990; Steuer 2000). O obstoju podkev v zgodnjem srednjem veku v zahodni Evropi ni dvomov. Med najstarejše prištevamo podkev v grobu B 17 na grobišču Aldaieta v Baskiji iz druge tretjine 6. stoletja (Böhme 2002, 146–150) in podkev z najdišča Caister, ki je bila najdena na površini rimske ceste in stratigrafsko pod grobom iz srednjesaškega obdobja (Clark 2004a, 79). Na Poljskem, na primer, pa se podkve pojavijo šele v 10. stoletju (Kaźmierczyk 1978, 147).

S tako podobo razvoja se v dobršni meri ujema študija 360 londonskih podkev (Clark 2004a), ki podaja doslej najpodrobnejšo oblikovno klasifikacijo in datacijo najdenih tipov podkve in njihov podroben opis uporabe.

In the Early Medieval Period round or oval stirrups with a concave foot-rest, adjusted to horseback riding with bent legs and in soft footwear, prevailed throughout Eastern Europe. In Western Europe semicircular and later triangular stirrups developed with a straight or convex foot-rest, adjusted to horseback riding with stretched legs. In the 12th century it became popular to ride with the legs stretched forwards, which made the stirrups become wider and firmer, with a stronger loop for straps (Karo 2003, 23).

The iron stirrup from Mali grad (*t. 3: 5*) has a trapezoid shape with rounded corners and a slightly concave foot-rest. The body has an octagonal cross-section. The foot-rest consists of two narrow crossbars with a rectangular cross-section. On the lower part of the foot-rest there are two projections (cf. *fig. 5.16*).

We have not found a good analogy for the stirrup from Mali grad. The closest is the fragment of a stirrup from the Swiss castle of Madeln, which compared to the Mali grad one lacks the two projections on the lower part of the foot-rest (Marti, Windler 1988, 104, Taf. 15: 171). According to its basic form the Mali grad stirrup is reminiscent of the Early Medieval ones, for instance type IV-3 as classified by Ruttkay (1976, Abb. 74), or type I-3 in the Měchurova classification (1983, tab. 1). The only difference lies in the absence of the neck. Taking into account this characteristic the stirrup from Mali grad is the closest to the narrow trapezoid stirrups, classified as type IV-3b in the Ruttkay classification.

This is one of the classic Western European types of stirrups used by knights. However, the trapezoid shape with rounded corners and especially the concave foot-rest are typologically nomadic or Eastern European elements. On the other hand the shape clearly shows the desire to create an extremely strong loop, which was supposedly a characteristic of the Western European 'battle' stirrups.

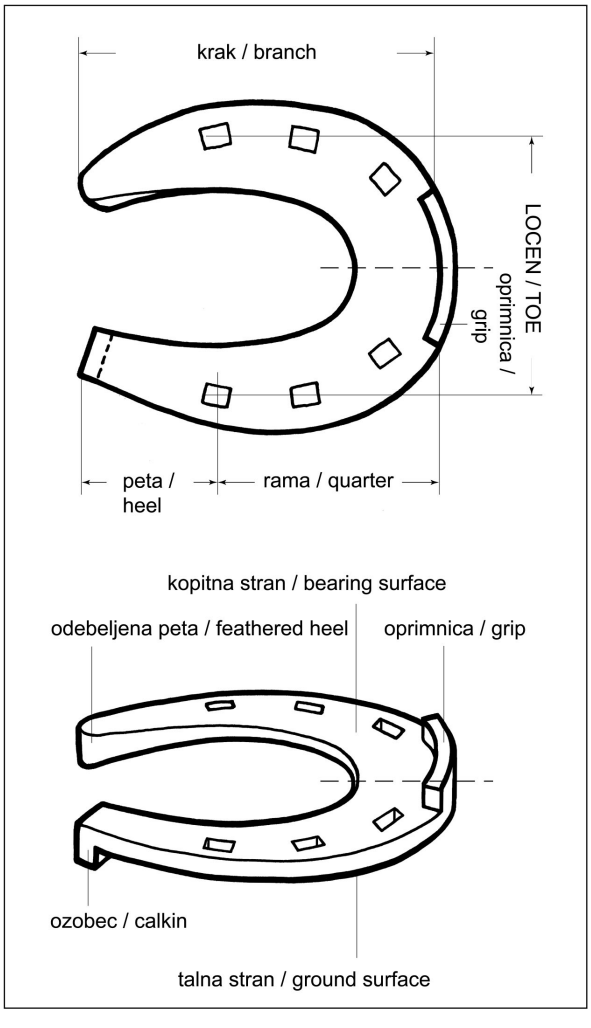
A. N. Kirpičnikov sees the development of such stirrups from the Hazar ones dated to between the 9th and 11th century. These were also found in the old Hungarian graves from the same period where they were often found together with a double-bladed sword, which points towards their use in battle (Ruttkay 1976, 355).

The stirrup from Mali grad stratigraphically belongs into phase 4b.

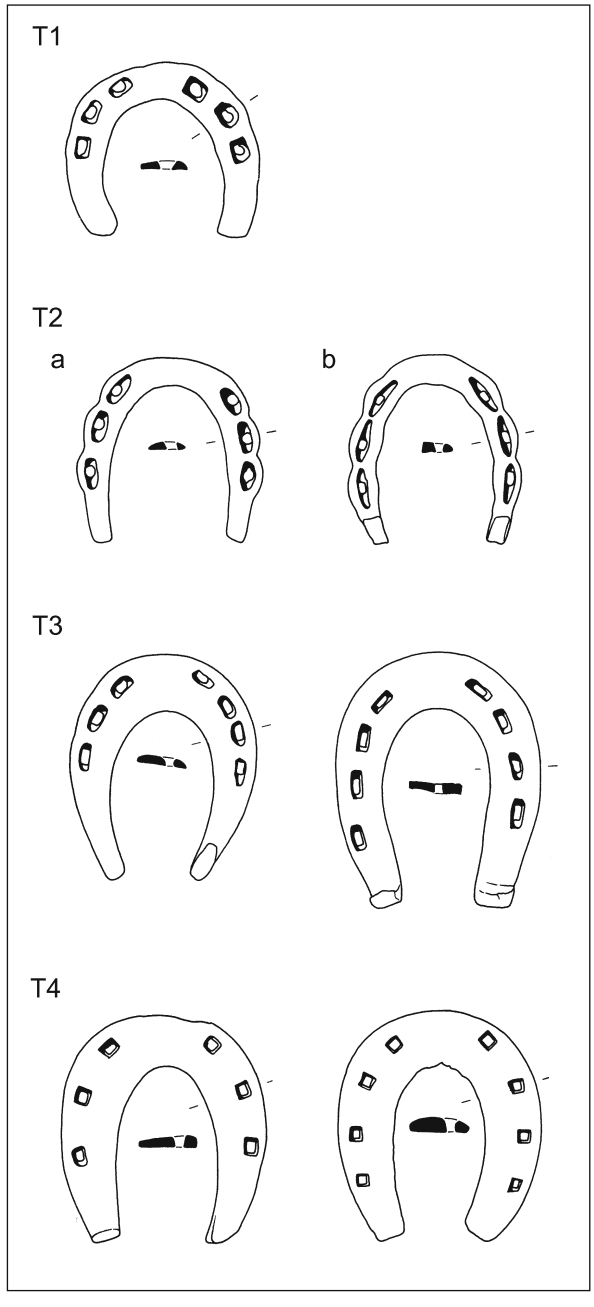
Two *horseshoes* (*t. 3: 6, 7*) were found at Mali grad. So far we have no reliable answer as to when people started to shoe animals used for riding or transporting goods (cf. Drack 1990; Steuer 2000). However, there are no doubts as regards the existence of horseshoes in Early Medieval Western Europe. Amongst the oldest are the horseshoes in grave B 17 at the burial site Aldaieta in the Bask country which date to the second third of the 6th century (Böhme 2002, 146–150) and the horseshoe from Caister that was found on the surface of a Roman road and stratigraphically bellow a grave from the Mid-

Podkvi z Malega gradu (*t. 3: 6, 7*) sta 'okrogli', kar pomeni, da je razmerje dolžine in širine okoli 1 : 1. Kraka sta razmeroma široka, na locnu je šest somerno razporejenih kvadratnih luknjic za žeblje. Proti oprimnici orientirani ozobci, tip E/2 po Kaźmierczkem (1978, Ryc. 41), niso izrabljeni (za izraze glej *sl. 5.17*). Podkvi glede na splošno obliko sodita v tip 4 po Clarku (*sl. 5.18*) oziroma V/2 po Kaźmierczkem (1978, Ryc. 47). Glede na velikost sodi prva med večje in druga med manjše podkve tega tipa (prim. Clark 2004a, Fig. 76), obe pa sta nekoliko širši od običajnih podkev Clarkovega tipa. Imata pa, podobno kot večina srednjeevropskih primerjav, drugačne ozobce. Takšne podkve se v Angliji pojavljajo od zadnje tretjine 13. stoletja dalje, značilne pa so za obdobje od sredine 14. stoletja dalje in 15. stoletje. Podobne so tudi datacije primerjav z najdišč Stari grad nad Podbočjem ter iz Švice, Nemčije (Predovnik 2003, 41, 81, sl. 74: 716, 717; glej tam navedeno literaturo), Češke (Krajíc 1993, Obr. 11: 17394–17396) in Slovaške (Čaplovič 1999, Obr. 7: 6).

Podkvi z Malega gradu stratigrafsko sodita v fazo 5.



Sl. 5.17: Shema in poimenovanje najpomembnejših sestavnih delov podkve (prim. Clark 2004a, Fig. 58; Pleteršnik 2006).
Fig. 5.17: Main parts of the horseshoe (cf. Clark 2004a, Fig. 58).



Sl. 5.18: Tipologija srednjeveških podkev v Londonu (povzeto po Clark 2004a, 85–100).
Fig. 5.18: Typology of Medieval horseshoes from London (according to Clark 2004a, 85–100).

dle Saxon period (Clark 2004a, 79). On the other hand horseshoes appear in Poland as late as the 10th century (Kaźmierczyk 1978, 147).

So far the study of the 360 London horseshoes (Clark 2004a) offers the most detailed classification as regards the shape and date of horseshoes as well as a detailed description of their use.

The horseshoes from Mali grad (*t. 3: 6, 7*) are 'round', which means that the ratio between the length and the width is roughly 1:1. The branches are relatively

Pomemben del konjske oprave je uzda, povezava, ki prenaša jezdečeve ukaze preko njegove roke na konja skozi zelo občutljivo in dovzetno točko – gobec. To je priprava iz brzde, ki jo ima žival v gobcu, in jermenov, ki se namestijo konju na glavo. Brzda je pogosto kovinska, medtem ko je večina uzde narejena iz jermenov iz organskih materialov, ki se le redko ohranijo v arheoloških kontekstih: naličnі, naglavni in čelni, včasih še nosni in podbradni jermen ter vajeti, na uzdo pritrjen jermen za vodenje živali. Uzda je narejena tako, da jezdec z vajetmi pritiska na najobčutljivejše dele glave živali: usta, ustnice, ustno nebo, čeljust in občutljivi predel glave med ušesi (Predovnik 2003, 80; Clark et al. 2004, 43). Namen brzde je razviden tudi iz slovenskega pomena besede brzdati v pomenu obvladovati, zadrževati.

Brzda je sestavljena iz ustnega člena in naličnice. Ustni člen, ki je lahko cel (enodelen) ali lomljen (dvodelen ali tridelen), konj drži med zobmi. Na tega je pritrjena naličnica, v osnovi obroč, ki je pogosto podaljšan s prečkama ali krilcema, na katere so pritrjeni jermeni. Preproste srednjeveške brzde (ang. *snaffle*; *sl. 5.19*: a) so sestavljene iz enodelnega ali dvodelnega ustnega člena in naličnice, ki je bodisi okrogla ali opremljena s prečkama. Vsi jermeni so pritrjeni na isto mesto na obroču naličnice. Značilnost razvite različice brzde (ang. *curb*; *sl. 5.19:* b) je, da se naličnica širi tako nad ustno prečko kot tudi podnjo. Naglavno jermenje je pritrjeno na zgornji del, vajeti na spodnji. Prečki pri upravljanju z vajetmi torej delujeta kot vzvod (Clark et al. 2004, 43–44). Poleg takšnih so bile v srednjem veku pogoste tudi t. i. stroge brzde ali kandare, za katere je značilen poseben ustni člen v obliki črke U. Ward Perkinskov tip ustnega člena VI (*sl. 5.20*) meji na kandaro.

Poleg kronološkega vidika imajo različni tipi brzd tudi uporabnega. Moderni jezdeci se strinjajo, da je enovit ustni člen strožji od lomljenega, tanjši strožji od debelejšega; preozka brzda ščipa ustnice in jih lahko poškoduje, preširoka ne bo več natančna.

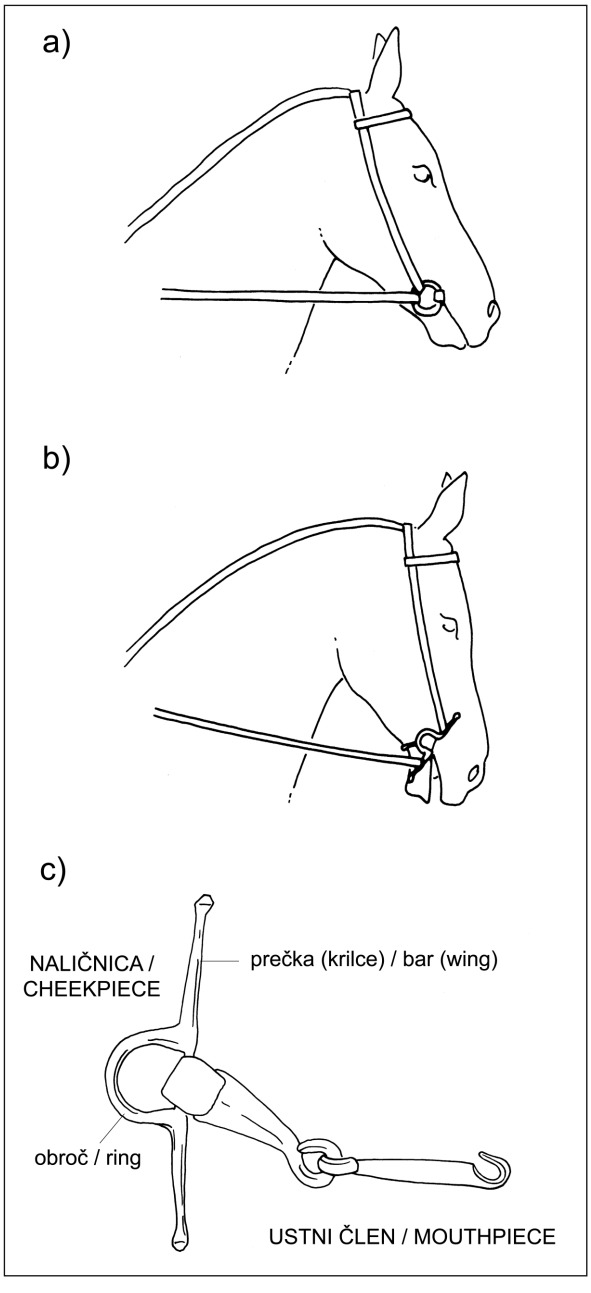
Uzda je bila kot osnovni element konjske oprave v azijskih stepah znana že od samega začetka jahanja. Sprva so bili trdni deli izdelani iz lesa ali kosti (Gamber 2000c). Bronaste brzde se pojavijo že v bronasti dobi (Slivka 1980, 257). Srednjeveški razvoj brzd je razviden tudi iz tipologije, ki jo je za predmete v Londonskem muzeju izdelal Ward Perkins leta 1940 (*sl. 5.20*; Clark et al. 2004, 46–53). Kot običajno kronologija tipološkega razvoja ni linearna, vseeno pa se zdi najstarejša kombinacija enodelnega ustnega člena (tip I) in enostavne okrogle naličnice (tip A), ki se v srednji Evropi pojavlja že v zgodnjem srednjem veku. Morda velja, da imajo zgodnjesrednjeveške naličnice manjši premer, do 5 centimetrov (Slivka 1980, 258). Za čas od 12. –14. stoletja so značilni ustni členi tipa II, v 14. stoletju pa prevlada tip IV. V Angliji je v 14. stoletju najpogostejša kombinacija D - III, pri čemer naličnica tipa D prevladuje tudi v 15. stoletju. Ustni člen tipa IV je dokumentiran že v fazi med

wide with six relatively equally laid out square holes for nails. The calkins are oriented towards the grip, type E/2 according to the Kaźmierczki classification (1978, Ryc. 41), and are not worn out (for terminology see *fig. 5.17*). As regards their general shape the horseshoes belong to type 4 in the Clark classification (*fig. 5.18*) or V/2 according to Kaźmierczki (1978, Ryc. 47). As regards size the first belongs amongst the larger and the second amongst the smaller horseshoes of this type (cf. Clark 2004a, Fig. 76), while both are slightly wider than the usual horseshoes found in Clark's classification. Similar to most Central European comparisons they have different calkins. In England such horseshoes appear from the last third of the 13th century onwards and are typical for the period from the mid 14th century and throughout the 15th century. The analogies from the site Stari grad above Pobočje as well as sites in Switzerland, Germany (Predovnik 2003, 41, 81, sl. 74: 716, 717; see cited literature), Czech Republic (Krajíc 1993, Obr. 11: 17394–17396) and Slovakia (Čaplovič 1999, Obr. 7: 6) belong to a similar date.

Horseshoes from Mali grad stratigraphically belong to phase 5.

An important part of a horse harness is the bridle, the connection that transfers the rider's command through his hand to the horse through a very sensitive and susceptible point – the mouth. The bridle consists of a snaffle that is placed in the animal's mouth, and straps that are placed on its head. The snaffle is often made of metal, while most of the bridle is made from straps from organic materials that are rarely preserved in archaeological sites. The bridle consists of the following straps: cheek, head, forehead, sometimes also nose and chin straps as well as the rein - a strap that leads to the bridle and is used to control the animal. The bridle is made in a way that allows the rider to press on the horse's most sensitive parts of the head: mouth, lips, top of the mouth, the jaw and the sensitive part of the head between the ears (Predovnik 2003, 80; Clark et al. 2004, 43). The purpose of such a bridle can also be seen from the Slovene meaning of the word (*brzda*, derived from *brzdati*, means to control, hold back).

The *snaffle* consists of the mouthpiece and the cheek pieces. The mouthpiece is held by the horse between its teeth and can consist of a bar (single part) or joined links (two or three parts). The cheek piece that is attached to the mouthpiece consists of a ring with wings (optional) upon which the straps are attached. Simple Medieval snaffles (*fig. 5.19*: a) are made from a single bar or a two piece mouthpiece and a simple ring or ring with wings cheek piece. All straps are attached to the same spot on the ring of the cheek piece. The characteristic of the developed version, i.e. the *curb* (*fig. 5.19:* b) is that the cheek piece spreads above the mouthpiece as well as below. The head straps are attached to the upper part, and the bridle to the lower. When using the bridle the



Sl. 5.19: Delovanje uzde s (a) preprosto in (b) razvito naličnico ter (c) shema in poimenovanje najpomembnejših sestavnih delov brzde in naličnice (a in b prirejeno po Clark 2004c, Fig. 27).
Fig. 5.19: Snaffle and curb bits with (a) simple and (b) developed cheek piece showing pressure from the curb chain and poll and (c) the main parts of the snaffle and cheek piece (a and b adapted from Clark 2004c, Fig. 27).

letoma 1270 in 1350. Brzde tipa A - IV je moč kupiti še dandanes, kot tudi brzde z naličnicami tipa C.

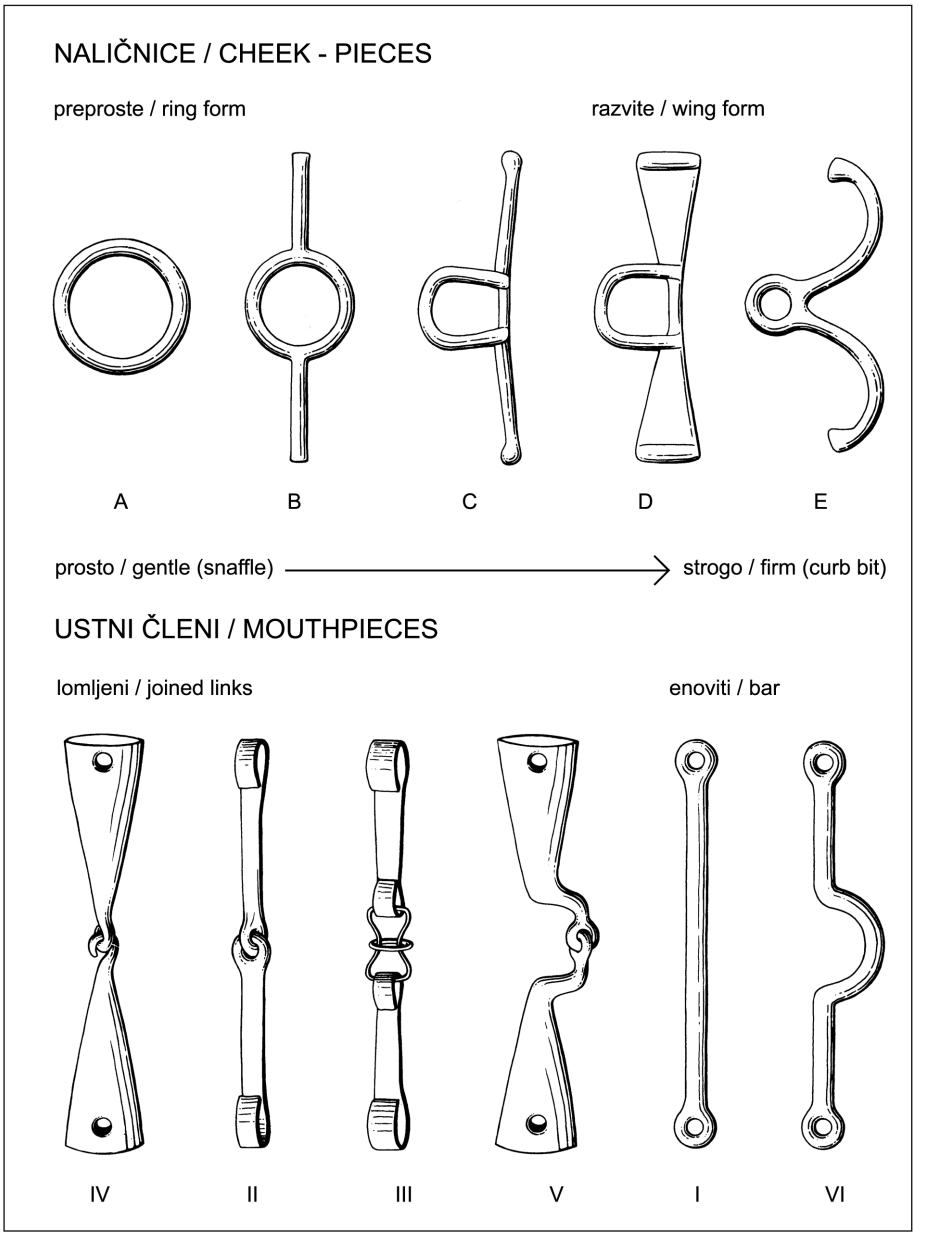
Malograjsko brzdo (*t. 4: 2*) bi po angleški tipologiji umestili v tip C - IV, ki sodi med manj stroge. Drugačen je način pritrjevanja naličnice na ustni člen, ki kaže na razlike med angleškimi in srednjeevropskimi brzdami.

cross bars therefore operate as a lever (Clark et al. 2004, 43–44). Apart from such curbs the so-called strict curbs or candara curbs with a typical U shaped mouthpiece were also common in the Middle Ages. Ward Perkins' type VI mouthpiece (*fig. 5.20*) is close to the candara.

Apart from the chronological aspect the various types of snaffles also have their various uses. Modern riders agree that the single bar mouthpiece is stricter than the two or three piece one, as is the narrower when compared to the thicker. Also, if the snaffle is too narrow it will hurt the lips, and if it is too wide it will no longer precisely guide the horse.

In the Asian steppes the bridle was a basic element of the horse harness as soon as they started to ride horses. At first the solid parts were made from wood or bone (Gamber 2000c), while bronze snaffles appeared in the Bronze Age (Slivka 1980, 257). The Medieval development of snaffles can also be discerned from the 1940 Ward Perkins typology that he created for the objects found in the London Museum (*fig. 5.20*; Clark et al. 2004, 46–53). As in most cases the chronology of the typological development is not linear, however it seems that the oldest combination consisted of a single bar mouthpiece (type I) and a simple ring cheek piece (type A) that appeared in Central Europe in the Early Middle Ages. The Early Medieval cheek pieces probably had a smaller diameter than the later ones, measuring up to 5 centimetres (Slivka 1980, 258). Type II mouthpieces were characteristic for the period between the 12th and 14th century, while in the 14th century type IV prevailed. In 14th century England the most common combination was D - III, at which the type D cheek piece prevailed also throughout the 15th century. The type IV mouthpiece is documented already between 1270 and 1350. Type A - IV snaffles are in use even today, as are snaffles with type C cheek pieces.

The Mali grad snaffle (*t. 4: 2*) is type C - IV according to the English classification, i.e. a loose snaffle. However, the cheek piece was attached to the mouthpiece in a different way, which points towards the difference between the English and Central European snaffles. The best analogy can be made with the snaffle from Stari grad above Podbočje, found together with a Viennese pfennig forged between 1427 and 1439 (Predovnik 2003, 41, sl. 74: 714). The cheek piece of this snaffle is somewhat different and seems to be a transitional form between types C and D. In the broader area reasonable analogies can be found in the Czech Republic (Nekuda 1985, Obr. 192: a) and Slovakia (Polla 1962, Obr. 9: 7, 8; Slivka 1980, 17: 2, 5; Tomášová 1999, Tab. 12: 4), both of which are typologically dated into the 14th and 15th century. Another example from the Slovak castle Šariš is somewhat older, for it is contextually dated into the 13th century (Slivka 1980, 259). Based on analogies the Mali grad snaffle is therefore dated to the 14th or 15th century, however it could also be dated into the 13th century.



Sl. 5.20: Prirejena Ward Perkinsova tipologija naličnic (zgoraj) in ustnih prečk (spodaj), narejena na podlagi najdb Londonskega muzeja; tipe smo razvrstili glede na uporabnost, od prostih brzd proti strogim (prirejeno po Clark 2004c, Fig. 30 in 31).
Fig. 5.20: Typology of cheek pieces (above) and mouthpieces (below) adapted from the Ward Perkins categorisation made on the basis of the finds in the London Museum; the types were classified as regards their use, from gentle snaffles to firm curbs (adapted from Clark 2004c, Fig. 30 and 31).

Najbližja je primerjava z brzdo s Starega gradu nad Podbočjem, najdeno v zasipu skupaj z dunajskim pfenigom, kovanim med letoma 1427 in 1439 (Predovnik 2003, 41, sl. 74: 714). Naličnica te brzde je sicer nekoliko drugačna in se zdi prehodna oblika med tipoma C in D. V širšem prostoru najdemo dobre primerjave na Češkem (Nekuda 1985, Obr. 192: a) in Slovaškem (Polla 1962, Obr. 9: 7, 8; Slivka 1980, 17: 2, 5; Tomášová 1999, Tab. 12: 4), ki so tipološko datirane v 14. in 15. stoletje. Nekoliko starejši je le primerek z gradu Šariš, ki je datiran s kontekstom v 13. stoletje (Slivka 1980, 259). Malograjska brzda

A special characteristic of the Mali grad snaffle is its disproportionate mouthpiece. The two parts of the mouthpiece differ in their diameter as well as in their manufacturing technique, for the wider is hollow and the narrower is full. As shown (see above, cf. *fig. 5.20*), such parts can influence the horse in different ways. On the basis of this we can conclude that one of the parts was added at a later date, most likely as a substitute for a used or damaged part. It is more likely that the hollow part made of thin sheet metal was damaged and replaced. It is hard to imagine that the full part of the mouthpiece

tipološko torej sodi v 14. in 15. stoletje, ni pa izključena datacija v 13. stoletje.

Posebnost malograjske brzde je nesomeren ustni člen. Dela ustnega člena se razlikujeta tako v premeru kot tudi v tehniki izdelave, saj je širši votel, ožji pa poln. Kot smo pokazali (glej zgoraj, prim. *sl. 5.20*), taka člena različno učinkujeta na konja. Na podlagi tega lahko sklepamo, da je bil eden izmed členov dodan naknadno, verjetno kot zamenjava za izrabljeni ali poškodovani del. Večja verjetnost je, da je bil poškodovan in zamenjan pločevinasti votli del. Le težko si namreč predstavljamo, da bi se izrabil ali poškodoval poln del ustnega člena, kovan iz enega kosa železa. Kakorkoli, kronološko se dela ustnega člena ne razlikujeta. Druga možna razlaga takšnega ustnega člena bi bila, da gre za prilagoditev brzde določenemu konju, ki ima na primer poškodovan del gobca.

Brzde z Malega gradu ni bilo mogoče stratigrafsko opredeliti.

Zadnji izmed predmetov z Malega gradu, ki smo ga umestili v to poglavje, sodi v konjsko opravo le v najširšem pomenu besede. Konjsko *čohalo* (*t. 4: 1;* prim. SSJK; Pleteršnik 2006; lat. *strigilis*) oziroma strgalo (Predovnik 2003, 83) je krtači podobna kovinska priprava za oskrbo konj. Konja je treba redno čohati (*sl. 5.21*), po srednjeveških napotkih dvakrat dnevno. S tem se konja očisti blata, nesnage in strjenega potu, izčeše se odpadle dlake ter odstrani del zajedalcev. Poleg tega čohanje pomaga prekrvaviti podkožno mišičevje (Clark 2004b, 157–158; prim. Predovnik 2003, 83). Čohanje konja je pomembno tudi za vzpostavljanje stika med živaljo in človekom, o čemer priča slovenska raba glagola čohati ali čohljati. Starejši pomen v smislu oskrbe živali je kot primaren pomen zamenjala uporaba glagola v smislu "čohati psa za ušesi" (prim. SSJK). To kaže na dvojni namen čohanja, torej oskrba in vzpostavljanje stika z živaljo. Pomen stika človeka s konjem lahko razberemo tudi iz notranjskega pregovora, ki se glasi "Strezi konju kakor prijatelju, a jaši ga kakor vraga" (Pleteršnik 2006, geslo "a").

Slovenski besednjak nam razkrije še eno podrobnost uporabe čohala. Posebne ojačitve (glej spodaj) kažejo, da so orodje po uporabi čistili z močnim udarjanjem ob tla (Clark 2004b, 162). Iz tega dejanja izvira slovenski glagol čohniti v pomenu močno udariti (z orodjem), "čohniti z grabljiščem".

V 19. stoletju so železna čohala nadomestile krtače, morda tudi zaradi uvajanja vse bolj kratkodlakih pasem konj. Zanimivo je, da so železna čohala ostala v uporabi, a prvenstveno za čiščenje krtač, dokler obojih niso izpodrinili izdelki iz modernih materialov (Clark 2004b, 157–158; prim. Predovnik 2003, 83).

Čohala so bila sestavljena iz treh sestavnih delov: podolgovate železne plošče, dvoramnega ali triramnega trnastega držaja in obloge držaja. Ploščo so najprej dvakrat upognili oziroma uvili, pri čemer je prvi način starejši. Nato so zažagali zobce. Plošča je pogosto utr-

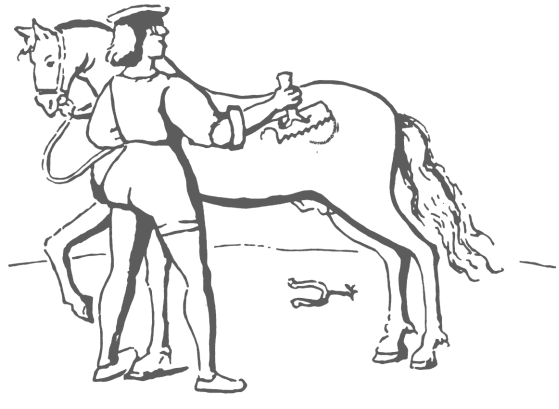
forged from a single piece of iron would wear out. Whatever the case might be, the two parts of the mouthpiece are from the same period. The second possible explanation for such a mouthpiece could be that it was a special adjustment of the snaffle to a certain horse that had a part of its mouth damaged.

The snaffle from Mali grad is an unstratified find.

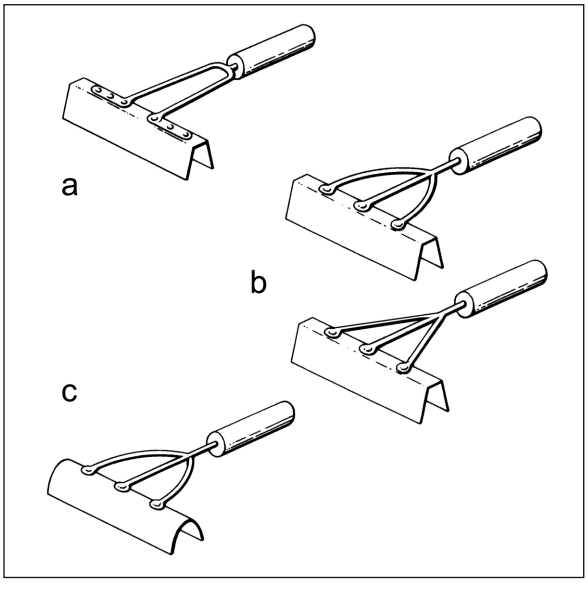
The last of the objects from Mali grad to be placed into this chapter is a part of the horse equipment only in the broadest sense. The *curry comb* (lat. *strigilis*; *t. 4: 1*) is a brush like metal implement for grooming horses. According to Medieval instructions the horse has to be regularly groomed - twice a day (*fig. 5.21*). Through grooming the horse is cleaned of the mud, dirt and dried sweat, the hair that has fallen out as well as some of the parasites. Apart from this grooming also helps the blood to circulate through the muscles just below the skin (Clark 2004b, 157–158; cf. Predovnik 2003, 83). Horse grooming is also an important way of establishing a contact between the animal and man. The importance of the contact between man and horse can also be noticed from the Slovene proverb that states: 'Serve the horse as if it were your friend, but ride it as if it were the devil' (Pleteršnik 2006, entry 'a').

The Slovene vocabulary reveals another detail in comb use. Special reinforcements (see below) show that after the tool was used it was cleaned by hard blows against the floor (Clark 2004b, 162). This lead to a connection in the Slovene language that linked the word for grooming with the one for hitting somebody strongly with a tool, (*čohati* and *čohniti z grabljiščem*).

In the 19th century metal curry combs were substituted by brushes. One of the reasons for this might have been the introduction of horse breeds with shorter hair. It is interesting that curry combs remained in use for cleaning brushes until both combs and brushes were substituted by tools made from modern materials (Clark 2004b, 157–158; cf. Predovnik 2003, 83).



Sl. 5.21: Francoska predloga za tapiserijo, Čohanje (ang. *Currying favel*), ok. 1500 (Clark 2004b, Fig 113).
Fig. 5.21: '*Currying favel*'; French design for tapestry, approx. 1500 (Clark 2004b, Fig 113).



Sl. 5.22: Srednjeveška čohala: **(a)** z oglato upognjeno ploščo in dvoramnim držajem, **(b)** z oglato upognjeno ploščo in triramnim držajem – zgoraj Clarkova 'U' različica, spodaj malograjska 'V' različica – ter **(c)** s polcilindrično ploščo in triramnim držajem (prirejeno po Clark 2004b, Fig. 120).
Fig. 5.22: Medieval combs: **(a)** with an angularly bent plate and a two strap handle, **(b)** with an angularly bent plate and a three strap handle – top Clark's 'U' type, below the Mali grad 'V' type – and **(c)** with a twisted semi-cylindrical plate and a three strap handle (adapted from Clark 2004b, Fig. 120).

jena z železnima trakovoma na konceh. Pravokotno na ploščo je prikovan držaj, nanj nasajena obloga. Zanimiv dodatek so obročki na neobloženem delu držaja. Zdi se, da je njihov namen zvončkljanje. Konju se namreč nikoli ne smemo neopaženo približati od zadaj, temveč mu moramo prigovarjati, da ga opozorimo nase. Istemu namenu bi lahko služilo zvončkljanje čohala (Clark 2004b, 162–163; prim. Predovnik 2003, 83).

Razlikujemo tri tipe srednjeveških čohal, (a) z oglato upognjeno ploščo in dvoramnim držajem, (b) z oglato upognjeno ploščo in triramnim držajem ter (c) s polcilindrično ploščo in triramnim držajem (*sl. 5.22*). Prvi tip (a) se v Angliji pojavi proti koncu 12. stoletja in je v uporabi še v 14. stoletju, drugi tip (b) pa je dokumentiran v drugi polovici 14. stoletja. Zadnji tip (c) je mlajši, v Angliji se pojavi v 15. stoletju in so ga prodajali kot kravje čohalo (ang. *cow comb*) še v 20. stoletju (Clark 2004b, 162–163).

Malograjsko triramno železno čohalo z oglato upognjeno ploščo (*t. 4: 1*) ima zelo dobro primerjavo na nemškem gradu Schnellerts, kjer je predmet datiran v čas okoli leta 1300 (Krauskopf 1995, 140, št. 62). Podobno je tudi čohalo z nemške naselbine Sindelfingen / Obere Vorstadt (Scholkmann 1978, Abb. 34: 2). Našteta čohala se od Clarkovega tipa (b) razlikujejo po obliki vilic, ki niso razvejene v obliki črke 'U', temveč v obliki črke 'V'. Clarkov tip (b) torej lahko ločimo na različico 'U' in 'V'. Prva je pogosta na angleških gradovih, pa tudi na čeških (Hejna 1962, 459 in 466 ter Obr. 3: 2; Polla 1962, Obr. 100: 8, 14; Huml 1967, 38 in tab. 4: 9; Unger , Nekuda 1981, 297; Nekuda 1985, 28 in Obr. 34: j). Še posebej je zanimiv predmet z gradu pri opusteli vasi Mstěnice na Moravskem, saj je bil dokumentiran *in situ* v konjskem hlevu (Nekuda 1985, 28).

Kot posebnost malograjskega čohala lahko opozorimo na omenjene zvončkljajoče obročke. Malograjsko čohalo ima po enega na vsakem ramenu, poleg teh pa še dodatnega, pritrjenega na v zanko oblikovan zaključek

Curry combs were made from three parts: a long iron plate, a two or three strap handle and handle padding. First the plate was bent twice or twisted round, bending being an older technique that twisting. Then the teeth were sawn in. The plate was often strengthened with two metal strips at the ends. The handle was attached to the plate at a right angle and the padding was placed on top. An interesting addition are the small rings found on the unpadded part of the handle. It seems that their sole purpose is to tinkle. The horse must never be approached from behind without it being aware of that, thus one must always draw attention to oneself when approaching. It is possible that this was the reason the comb was made to tinkle, otherwise talking to the horse is also recommended (Clark 2004b, 162–163; cf. Predovnik 2003, 83).

There are three types of medieval combs: (a) with an angularly bent plate and a two strap handle, (b) with an angularly bent plate and a three strap handle and (c) with a semi-cylindrical twisted plate and a three strap handle (*fig. 5.22*). The first type (a) appeared in England towards the end of the 12th century and was used until the 14th century, the second type (b) was documented in the second half of the 14th century. The last type (c) was also the last to appear, as it appeared in England in the 15th century and was sold as a cow comb as late as in the 20th century (Clark 2004b, 162–163).

The Mali grad three strap curry comb with an angularly bent plate (*t. 4: 1*) has an excellent analogy at the German castle of Schnellerts, where the object is dated to around the year 1300 (Krauskopf 1995, 140, No. 62). It is also similar to the comb from the German settlement of Sindelfingen / Obere Vorstadt (Scholkmann 1978, Abb. 34: 2). These combs differ from Clark's type (b) according to the shape of their handles, for they are not in the shape of the letter 'U', but in the shape of the letter 'V'. Clark's type (b) can therefore be divided into versions 'U' and 'V'. The first was common in English and Czech castles (Hejna 1962, 459 and 466 as well as Obr. 3: 2; Polla 1962, Obr. 100: 8, 14; Huml 1967, 38 and tab. 4: 9; Unger , Nekuda 1981, 297; Nekuda 1985, 28 and Obr. 34: j). Especially interesting is the object found in the castle close to the deserted village of Mstěnice in Moravia, for it was documented *in situ* in the horse stables (Nekuda 1985, 28).

As a speciality of the Mali grad comb we can draw attention to the aforementioned tinkle rings. The Mali

srednjega ramena. Podobnega elementa na primerjalnih čohalih nismo opazili.

Čohalo z Malega gradu je stratigrafsko nezanesljivo opredeljeno v fazo 4b.

5.5. PASNE SPONE

Z Malega gradu se je ohranilo pet *pasnih spon* (*t: 4: 3-7*; *sl. 5.23*). V vseh primerih gre za t. i. enostavne pasne spone, in sicer tri spone z locnom v obliki črke 'D', t. i. pasne spone D, ter pasni sponi s trapezastim locnom, t. i. trapezasti pasni sponi. Namembnost enostavnih pasnih spon iz srednjeveških kontekstov je zelo težko opredeliti. Uporabljali so jih tako za spenjanje jermenov konjske oprave kot tudi za pritrjevanje mečev in pasov ter paščkov pri ženski in moški noši. Železne pasne spone in pasne spone z notranjo širino 5 centimetrov in več so bile pogosteje del konjske oprave (Egan, Pritchard 2002, 50–53). Zaradi nezanesljivosti opredeljevanja obravnavamo vse pasne spone na tem mestu.

Pasne spone D različnih velikosti in oblik so pogoste že v 11. in 12. stoletju, vendar so praviloma mlajše od sredine 13. stoletja (Tauber 1991, 96, št. 491–495; Bader 1998, 65). Gre za najpogostejši tip pasnih spon, ki se v času srednjega veka skorajda ni spreminjal in ga tipološko ni moč datirati (Bitterli, Grütter 2001, 134). Večje, z notranjo širino od 5 do 8 centimetrov, pripisujemo konjski opravi. Verjetno so služile za spenjanje konjske oprsnice oziroma za pripenjanje sedla. Manjše, z notranjo širino od 3 do 5 centimetrov, prištevamo k noši in so jih uporabljali za spenjanje pasov in drugega jermenja na oblačilih. Notranja širina pasne spone določa širino jermena, meja petih centimetrov pa je okvirna in služi le kot orientacija (Ottaway, Rogers 2002, 2981; Egan 2004, 55). Tudi spodnja in zgornja meja ne izključujeta posameznih primerkov, ki so lahko večji ali manjši.

Največja malograjska pasna spona oblike D (*t. 4: 3*) ima notranjo širino 5 centimetrov, kar jo uvršča med pasne spone konjske oprave. Primerjave iz Švice (Bader 1998, Taf. 11: 437; Bitterli, Grütter 2001, Taf. 32: 361) in Anglije (Ottaway, Rogers 2002, fig. 1468: 12672; Egan 2004, 56, št. 25) so datirane s konteksti od 11. do 13. stoletja. Nekoliko manjša pasna spona D (*t. 4: 4*) je izdelana iz tanjše palice in ima notranjo širino 4,8 centimetra. Glede na velikost bi še lahko sodila v konjsko opravo. Primerjava s trdnjave v Mstěnicah je datirana tako kot celotno najdišče v čas od druge polovice 13. stoletja dalje (Nekuda 1985, Obr. 217: e). Podobne oblike je tudi nestratificirana pasna spona iz Londona (Egan 2004, 56, št. 22). Najmanjša malograjska pasna spona D (*t. 4: 5*) ima notranjo širino 2,8 centimetra in se je verjetno uporabljala kot del oblačil ali obuval.

Tudi trapezastih pasnih spon tipološko ni mogoče datirati (prim. Predovnik 2003, 76). Razmeroma preprosta pasna spona tega tipa z zaobljenimi vogali (*t.*

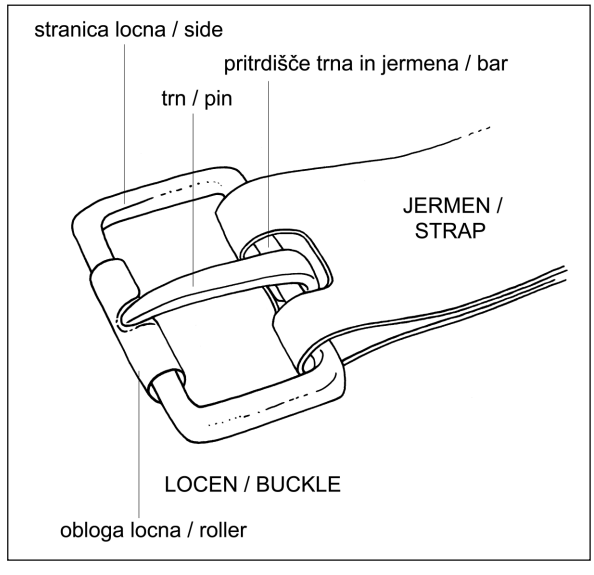
grad comb has one on each strap, as well as an additional one that is attached to the end of the loop on the central strap. We have not found an analogy for this.

The comb from Mali Grad unreliably belongs into the stratigraphic phase 4b.

5.5. BELT BUCKLES

Five *belt buckles (t: 4: 3-7*; *fig. 5.23*) have been preserved at Mali grad. All examples belong to the group of so-called simple belt buckles, three of which are D shaped buckles, and two trapezoid. It is extremely difficult to define the use of the simple Medieval belt buckles. They were used for joining straps on horse harnesses as well as for attaching swords, belts and straps onto clothing. Iron belt buckles and buckles with an inner width exceeding 5 centimetres were most commonly a part of a horse harness (Egan, Pritchard 2002, 50–53). Due to the unreliable classification we are going to treat all buckles in a single sub-chapter.

Various sizes and shapes of the D type belt buckle were common already in the 11th and 12th century, however most of them originate from the mid 13th century or later (Tauber 1991, 96, št. 491–495; Bader 1998, 65). This is the most common type of belt buckle that has hardly changed from the Medieval times onwards and is impossible to date typologically (Bitterli, Grütter 2001, 134). The larger, i.e. the ones with an inner width between 5 and 8 centimetres, were usually a part of a horse harness. Most probably they were used for attaching the saddle. The smaller buckles with an inner width ranging between 3 and 5 centimetres were a part of the clothing and were



Sl. 5.23: Shema in poimenovanje najpomembnejših sestavnih delov pasne spone (prirejeno po Egan 2004, Fig. 41).
Fig. 5.23: Main parts of the belt buckle (adapted from Egan 2004, Fig. 41).

4: 7) ima notranjo širino 4,4 centimetra in je podobna pasni sponi s češkega najdišča Košúty (König 2005, Obr. 12: 4). Za zadnjo izmed malograjskih pasnih spon je značilna valjasta obloga locna (*t. 4: 6*; prim. *sl. 5.23*), ki omogoča tekoče pretikanje dolgih jermenov (Bader 1998, 65–66), kakršni so pogosti pri konjski opravi. Zato so tovrstne pasne spone navadno interpretirane kot del konjske oprave (Egan, Pritchard 1991, 54). Sodeč po švicarskih primerjavah so pogostejše od 13. stoletja dalje (Bader 1998, 66), v uporabi pa so ostale do današnjih dni. Trapezaste pasne spone z oblogo locna so drugi najpogostejši tip pasnih spon v srednjeveškem Yorku, a so tam običajno široke do 3,5 centimetra (Ottaway, Rogers 2002, 2891–2894). Trapezaste pasne spone najdemo tudi na Češkem (Richter 1982, 162), Slovaškem (Polla 1962, obr. 111: 1), v Švici (Bader 1998, Taf. 11: 442) in v Nemčiji (Maurer, Bauer 1961, str. 259, XI 22; Ericsson 1983, Abb. 37: 9–11).

Dve pasni sponi (*t. 4: 3,7*) z Malega gradu sta nezanesljivo stratigrafsko umeščeni v fazo 4b.

5.6. OROŽJE

Na Malem gradu je bila najdena ena *sulična ost* (*t. 5: 1*). V slovenskem jeziku sicer ločimo kopje in sulico. Prvo (nem. *Speer*) je metalno orožje, drugo (nem. *Lanze*) je namenjeno vbadanju in suvanju, torej za boj iz bližine, t. i. boj mož na moža (prim. Slivka 1980, 225). V arheološkem gradivu se navadno ohranijo le osti, ki pa jih ni mogoče vedno natančno opredeliti (prim. Balant 2004, 31–32). Poleg tega je bilo isto orožje, vsaj na začetku visokega srednjega veka, lahko namenjeno tako boju iz bližine kot metanju. V nadaljevanju zato uporabljamo izraza sulična ost in sulica kot nevtralna.

V srednjem veku so bile sulice tako orožje konjenikov kot pešcev. Kljub temu je bila sulica, pogosto opremljena z bojnimi insignijami v obliki zastav, predvsem simbol viteza (*sl. 5.24*). Glede na razširjenost in uporabnost v boju je bila sulica najpomembnejše srednjeveško orožje za mečem (Ruttkay 1976, 298).

Konjenik je sulico uporabljal tako, da jo je namestil pod ramo in v diru naperil v nasprotnika. Za trdnost naperjene sulice je skrbelo ležišče za sulico v ščitu in nekakšen prstan na kopjišču, ki ga je suličar zataknil za kavelj na oklepu. Pehota je sulico uporabljala na dva načina, tako da je vojščak suval ali metal sulico čez ramo ali pa je s sulico bodel v višini ramen. Sunek sulice je vojak povečal s hkratnim skokom ali korakom naprej. Kljub številnim poročilom o vitezih, ki jih je pred smrtnim udarcem rešil dober oklep, je bil neposreden zadetek udarca s sulico smrtonosen (prim. Slivka 1980, 227–228; France 1999, 19–20; Balant 2004, 33). Kot pravi srednjeveški Ep o Rolandu[1]:

[1] Pesem o Rolandu, verzi 1304–1307. Prevod Marija Javoršek.

used for joining belts and other straps. The inner width of the belt buckle is defined by the width of the strap, at which five centimetres is merely a rough indicator and serves for general orientation only (Ottaway, Rogers 2002, 2981; Egan 2004, 55).

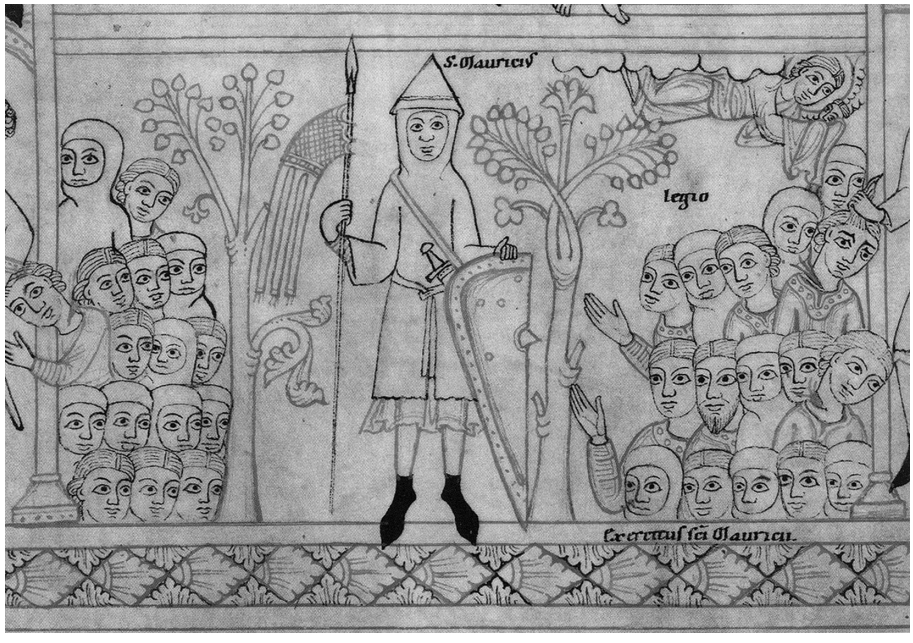
The largest D shaped belt buckle from Mali grad (*t. 4: 3*) has an inner width of 5 centimetres, which makes us believe that it is a buckle for a horse harnesses. Comparisons from Switzerland (Bader 1998, Taf. 11: 437; Bitterli, Grütter 2001, Taf. 32: 361) and England (Ottaway, Rogers 2002, fig. 1468: 12672; Egan 2004, 56, No. 25) were dated into the period between the 11th and 13th century. A somewhat smaller D shaped buckle (*t. 4: 4*) was manufactured from a smaller rod and has an inner width of 4.8 centimetres. Taking into account its size it could still be a part of a horse harness. The analogies from the Mstěnice fortress date to the second half of the 13th century and later (Nekuda 1985, Obr. 217: e). The unstratified belt buckle from London (Egan 2004, 56, No. 22) is also of a similar shape. The smallest D shaped belt buckle from Mali grad (*t. 4: 5*) has an inner diameter of 2.8 centimetres and was most likely used as a part of clothing or footwear.

The trapezoid belt buckles can not be dated typologically (cf. Predovnik 2003, 76). A relatively simple trapezoid belt buckle with rounded edges (*t. 4: 7*) and an inner width of 4.4 centimetres is similar to the belt buckle from Košúty, Czech Republic (König 2005, Obr. 12: 4). The last of the Mali grad belt buckles has a roller (*t. 4: 6*; cf. *fig. 5.23*) that enables smooth buckling up of long straps (Bader 1998, 65–66), which can often be found on horse harnesses. Because of this such buckles are usually interpreted as a part of a horse harness (Egan, Pritchard 1991, 54). Taking into account the Swiss analogies they were the most common from the 13th century onwards (Bader 1998, 66) and remain in use even today. Trapezoid belt buckles with a roller were the second most common type of buckles in Medieval York, however they usually measured up to 3.5 centimetres in width (Ottaway, Rogers 2002, 2891–2894). Trapezoid belt buckles can also be found in the Czech Republic (Richter 1982, 162), Slovakia (Polla 1962, obr. 111: 1), Switzerland (Bader 1998, Taf. 11: 442) and Germany (Maurer, Bauer 1961, pg. 259, XI 22; Ericsson 1983, Abb. 37: 9–11).

Two belt buckles (*t. 4: 3,7*) from Mali grad are uncertainly placed into the stratigraphic phase 4b.

5.6. WEAPONRY

A single *spearhead* (*t. 5: 1*) was found at Mali grad. Spears can be used to throw or to thrust, i.e. in close man to man combat (cf. Slivka 1980, 225). In most archaeological contexts only the spearheads are preserved and from them it is impossible to determine the use of the spear



Sl. 5.24: *Martyriologium Zweifalten* iz druge polovice 12. stoletja: sv. Mavricij kot vitez med drevesoma (Cod. Hist. 2 415, fol63r.; po Dunin-Wąsowicz 2000, 536). Ikonografsko je sv. Mavricij do konca 14. stoletja upodabljan v popolni viteški bojni opremi (Krüger 2000).
Fig. 5.24: *Martyriologium Zweifalten* from the second half of the 12th century: St. Mauritius as a knight between two trees (Cod. Hist. 2 415, fol63r.; from Dunin-Wąsowicz 2000, 536). Iconographically St. Mauritius was depicted in full knight armour until the end of the 14th century (Krüger 2000).

Berenger plane nad Astramariza,
ščit je razsekan in srajca verižna,
vsega prebodla je kopja konica,
glejte ga med Saraceni, mrliča!

Sulica se je od prazgodovine le malo spremenila. Dokončno so sicer s sulic izginili kanali za kri in v visokem srednjem veku je kopjišče postalo močnejše (*sl. 5.24* kot primer starejših kopjišč), verjetno pod vplivom konjeniške taktike. Številne oblike srednjeveških osti lahko razdelimo na tanjše, prebojne in širše, ki jih je bilo moč uporabiti tudi za sekanje, podobno kot meč. Verjetna je domneva, da so bila kopjišča konjeniškega orožja daljša in težja (France 1999, 22; za natančen pregled razvoja glej Balant 2004, 31–56). Hkrati so sulice uporabljali tudi za lov (Ruttkay 1976, 298).

Za izdelovanje suličnih osti so uporabljali isto tehnologijo kot za izdelavo sočasnih mečev: damasciranje, železno jedro med jeklenimi trakovi, železne konice z utrjeno zunanjo površino, jeklene osti ali preproste železne osti. Sulična ost iz običajnega železa je bila uporabna le za boj proti neoklepljenemu sovražniku ali za lov (prim. *sl. 5.5;* Ruttkay 1976, 298).

Malograjska sulična ost sodi med t. i. vrbovolistne sulične osti – tip 2 a po Ruttkayu (1976, 300) – z ozkim in ploščatim rezilom in kratkim tulastim nasadilom. Prehod iz tula v rezilo je neizrazit. Takšne sulične osti so dolge od 24 do 46 centimetrov in široke od 2,9 do (cf. Balant 2004, 31–32), i.e. was it used for thrusting or throwing. In the beginning of the High Medieval period the same weapon was used for both.

In the Middle Ages spears were used by the cavalry as well as foot soldiers. However, symbolically the spear, often equipped with the battle insignias in the form of flags, was a prerogative of the knight (*fig. 5.24*). Taking into account its diversity and usefulness in battle the spear was second only to the sword as a Medieval weapon (Ruttkay 1976, 298).

The horseman placed the spear under his shoulder and galloped towards his opponent. For the spear to remain firmly in place there was a rest in the shield and some sort of a ring on the spear that the spear holder attached to a hook on his armour. The infantry used the spear in two ways, i.e. the soldier either thrust or threw the spear over arm or he thrust the spear at shoulder height. The thrust of the spear was made even more powerful by the simultaneous jump or step forward. Regardless of the numerous reports of knights who were saved by their good armour, a direct hit by a spear was lethal (cf. Slivka 1980, 227–228; France 1999, 19–20; Balant 2004, 33). As stated in the Medieval Song of Roland[1]:

[1] The Project Gutenberg EBook, The Song of Roland, verses 1304-1307, translated by C. K. [Charles Kenneth] Moncreiff.

5,6 centimetra. Malograjski primerek torej sodi med najmanjše tovrstne sulične osti. Gre za zahodnoevropske in srednjeevropske sulične osti, ki se pojavljajo od 7. stoletja dalje in so tipične na primer za velikomoravski horizont. Od 11. stoletja dalje rezilo postane krajše in ostrejše, nasadilo pa daljše. Sicer pa gre za tip suličnih osti, ki je skoraj nespremenjen od bronaste dobe dalje in pogost v celotnem srednjem veku (Ruttkay 1976, 300).

Sulična ost z Malega gradu stratigrafsko sodi v fazo 4b.

Puščična ost je najpogostejši in pogosto edini element strelnega orožja, ki se na srednjeveških gradovih ohrani v arheološkem zapisu. Napačno pa je obravnavanje puščičnih osti zunaj konteksta njihove uporabe, torej brez puščice in strelnega orožja. Ravno slednje, pripisovanje posamezne puščične osti uporabi ali z lokom ali samostrelom, je osrednja tema številnih prispevkov na temo visoko- in poznosrednjeveških puščičnih osti. Posebej je bil v preteklosti ta problem izpostavljen med nemško govorečimi raziskovalci, saj imajo poseben izraz za puščično ost puščice loka (nem. *Pfeileisen*) in samostrela (nem. *Armbrustbolzen*).

Lok je najstarejše sestavljeno orožje. Deluje kot vzmet in moč človekovih mišic spremeni v hiter mehanski gib. Ljudje so lok za lov uporabljali morda od pozne starejše kamene dobe ali vsaj od srednje kamene dobe dalje (Rausing 1967, 32–33; Odar 2006b, 63). V zahodni in srednji Evropi je vse do poznega srednjega veka ostal razširjen enostaven dolgi lok. Šlo je za enostavno orožje, izdelano iz ravne palice, z drevesno belino na zunanji strani in trdino na notranji ter z zarezama za tetivo na konceh. Dolžina takšnega loka z dosegom do 365 metrov je bila v srednjem veku približno 1,82 metra (France 1999, 26).

Uporaba dolgih lokov v bitki je upodobljena na primer na tapiseriji iz Bayeuxa (Grape 1994, 152) in v neki angleški kroniki s konca 15. stoletja (*sl. 5.25*). V vzhodni Evropi se je pod vplivom nomadskih ljudstev v pozni antiki uveljavil kratki sestavljeni lok in z njim povezan način bojevanja z lokom na konju. V uporabi je ostal do konca visokega srednjega veka, vendar se zaradi neodpornosti na vlago v srednji in zahodni Evropi ni nikoli uveljavil (Slivka 1980, 230; France 1999, 26; Harmuth 2000; Zimmermann 2000, 22-23; za pozno antiko glej Odar 2006a, 270–272).

Samostrel so morda poznali v rimski Galiji že v 4. stoletju našega štetja (Slivka 1980, 231). Najstarejši najdbi delov samostrela iz Anglije sta datirani v 8. in 9. stoletje. Da so to orožje poznali vsaj v 10. stoletju, dokazuje tudi upodobitev na miniaturi. Najstarejše najdbe iz zahodne Evrope so datirane v 11. in 12. stoletje. (*sl. 5.26*; Zimmermann 2000, 19–20). Verjetno uporabo samostrelov v Evropi predvidevamo od 9. stoletja dalje (France 1999, 26). Najstarejši dokaz za uporabo samostrela v vzhodni Evropi je omemba v ruskih letopisih iz l. 1184

And Berenger, he strikes Estramariz,
The shield he breaks, the hauberk tears and splits,
Thrusts his stout spear through's middle, and him flings
Down dead among a thousand Sarrazins.

Typologically the spear has hardly changed from ancient history to the beginning of the High Middle Ages. During the High Middle Ages the blood canals disappeared from the spear and the spears became stronger (*fig. 5.24* as an example of older spears), most probably under the influence of cavalry tactics. The numerous types of Medieval spearheads can be divided into narrower and broader, the first used for piercing and the latter also for slashing, similar to a sword. The assumption that the spear used by the cavalry was longer and heavier (France 1999, 22; for a detailed overview of the development see Balant 2004, 31–56) is highly likely. Spears were also used to hunt (Ruttkay 1976, 298).

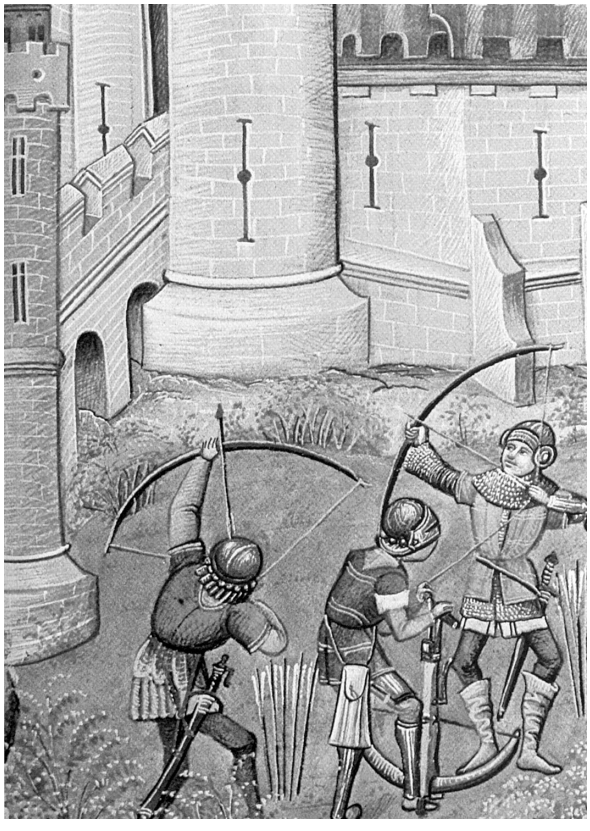
Spearheads were made with the use of the same technology as swords: damascing, iron core between steel strips, iron tips with a strengthened exterior, steel tips or simple iron tips. The iron spearhead was used only for man to man combat against a soldier with no armour or for hunting (cf. *fig. 5.5;* Ruttkay 1976, 298).

The Mali grad spearhead – type 2 in the Ruttkay classification (1976, 300) – has a narrow and flat blade and a short cylindrical attachment. The transition between the attachment and the blade - the shoulder - is gradual. Such spearheads measured between 24 and 46 centimetres in length and 2.9 and 5.6 centimetres in width. The example from Mali grad is therefore amongst the smallest. Such spearheads were found predominantly in Western and Central Europe (typical for instance for the Greater Moravia area) and appeared in the 7th century. In the 11th century the blade became shorter and sharper, and the cylindrical attachment longer. This type of spearhead remained unchanged from the Bronze Period onwards and was very common throughout the Middle Ages (Ruttkay 1976, 300).

Stratigraphically, the spearhead from Mali grad belongs into phase 4b.

The *arrowhead* is the most common and often only element of shooting weapons preserved at Medieval castles in the archaeological records. They should not be treated outside of the context of their use, i.e. without the arrow and the bow. Attributing an individual arrowhead to a bow or crossbow is the central theme of various discussions on the topic of High and Late Medieval arrowheads. In the past this problem was especially ubiquitous amongst the German speaking researchers, for there is a different German word describing the arrowhead used on an arrow shot from a bow (*Pfeileisen*) or a crossbow (*Armbrustbolzen*).

The bow is the oldest composite weapon. It operates as a spring and transforms the 'slow' power of human



Sl. 5.25: *Chroniques d'Angleterre*, konec 15. stoletja, Napad na grad (po Zimmermann 2000, Abb. 13). Upodobitev prikazuje tri lokostrelce, dva uporabljata dolgi enostavni lok, tretji pa samostrel. Oba lokostrelca imata puščice, pripravljene za hitro izstreljevanje, zapičene v zemljo desno ob sebi, strelec s samostrelom pa v tulu na desnem boku. Dolge, ozke, navpične strelne line na gradu dokazujejo, da so se tudi strelci z gradu branili z loki.

Fig. 5.25: *Chroniques d'Angleterre*, end of 15th century, the siege of the castle (from Zimmermann 2000, Abb. 13). The depiction shows three bowmen, two of which are using a simple longbow, while the third is using a crossbow. Both bowmen have arrows prepared for fast shooting, stuck in the ground to the right of them, while the archer with the crossbow has the arrows in the quiver to his right. Long, narrow, vertical loopholes on the castle show that the castle was also defended by bowmen.

(Slivka 1980, 232). Vendar zaradi različnih vzrokov, predvsem pomanjkljivega razvoja, uporaba samostrela ni nikoli dosegla polne zmogljivosti tega orožja (France 1999, 34).

Prvotno je šlo za močan kratek lok, pritrjen na kopito, in enostaven sprožilni mehanizem (*sl. 5.26*). Kratka puščica samostrela leti v ravni liniji in ima v primerjavi s puščico loka večjo začetno hitrost. Doseg samostrela je do 200 metrov, uporaben doseg pa 100 metrov. Na tako razdaljo puščica prebije 7 centimetrov debelo desko. Ob koncu 13. stoletja je bil lok samostrela pogosto sestavljen (France 1999, 26).

Glede na način uporabe lahko ločimo med samostreli brez mehanskega pomagala za napenjanje (*sl. 5.26*) ali z

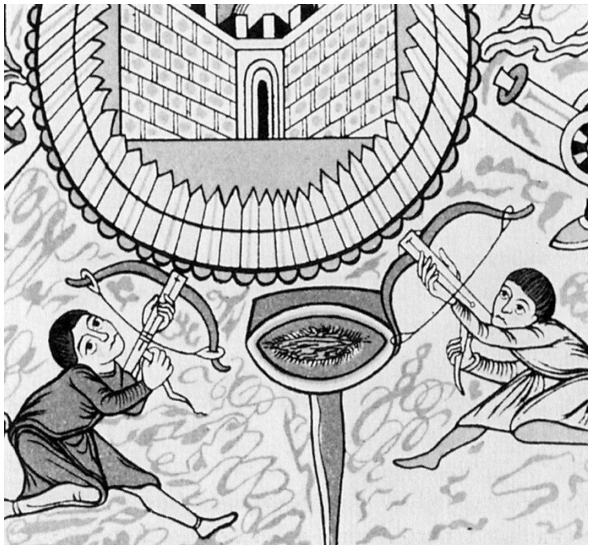
muscles into a swift mechanic move. Bows were used in hunting from the Early Stone Age or at least from the Middle Stone Age onwards (Rausing 1967, 32–33; Odar 2006b, 63). In Western and Central Europe the one-piece longbow was popular until the Late Middle Ages. This simple weapon was made from a straight stick, with the tree core on the outer side and the hard part on the inner side with an incision on each end to which the string was attached. In the Middle Ages such a bow - that could shoot arrows up to a distance of 365 metres - would measure approximately 1.82 metres in length (France 1999, 26). The use of longbows was depicted for instance in the tapestry from Bayeux (Grape 1994, 152) and in the English chronicle from the end of the 15th century (*fig. 5.25*).

The Asian nomadic tribes brought the short compound bow to Eastern Europe already in Late Antiquity together with their horseback battle tactics. The compound bow remained in use until the end of the High Middle Ages; however due to its lack of resistance to dampness it failed to establish itself in Central and Western Europe (Slivka 1980, 230; France 1999, 26; Harmuth 2000; Zimmermann 2000, 22-23; for Late Antiquity see Odar 2006a, 270–272).

The crossbow might have been known in Roman Gaul as early as the 4th century AD (Slivka 1980, 231). In England the oldest finds of crossbow parts are dated to the 8th and 9th century. The miniature depiction proves that this weapon was known at the latest in the 10th century. The oldest finds from Western Europe date to the 11th and 12th century (*fig. 5.26*; Zimmermann 2000, 19–20). Regardless of this it is thought that crossbows were used in Europe from the 9th century onwards (France 1999, 26). The oldest proof for the use of a crossbow in Eastern Europe is the mention in the Russian chronicles dated to 1184 (Slivka 1980, 232). However, due to various reasons, especially the lack in development, crossbows never achieved their full potential (France 1999, 34).

At first a strong bow and a simple trigger mechanism were attached to a stock (*fig. 5.26*). The short arrow shot from the crossbow flew in a straight line and - compared to the arrow fired from a bow - with a higher starting velocity. The range of an arrow fired from a crossbow is around 200 metres, with a useful range of 100 metres at which it can pierce a 7 centimetres thick plank. By the end of the 13th century the bow in the crossbow was often made from multiple parts, i.e. it was compound (France 1999, 26).

Taking into account their use we can differentiate between crossbows without (*fig. 5.26*) a mechanical aid for arching or with it. The latter can be divided as regards the mechanical aid onto crossbows with pull levers, push levers, cranequin or a windlass (*fig. 5.25*) or a pulley. The size of crossbows used in sieges increased significantly and in German language they were known as *Wallarmbrust* (Zimmermann 2000, 23), i.e. the wall crossbow.



Sl. 5.26: Haimo iz Auxerra, *Obleganje Jeruzalema*. Uporaba samostrelov na miniaturi iz 10. stoletja (po Zimmermann 2000, Abb. 3).
Fig. 5.26: Haimo from Auxerre, *The Siege of Jerusalem*. The use of crossbows on a 10th century miniature painting (from Zimmermann 2000, Abb. 3).

njim. Slednje lahko delimo glede na mehansko pomagalo na samostrel z vzvodom, z vitlom, z vijačnim vretenom (*sl. 5.25*) ali s škripcem. Oblegovalne naprave v obliki težkih samostrelov imenujemo zidni samostrel (nem. *Wallarmbrust*; Zimmermann 2000, 23).

Tudi samostrele so uporabljali tako v bitkah (*sl. 5.25*, *sl. 5.26*) kot pri lovu (Predovnik 2003, 92).

Lok in samostrel so torej ves visoki in pozni srednji vek do prevlade ognjenega strelnega orožja uporabljali vzporedno. Lokostrelci s samostrelom so bili običajno bolj cenjeni, od 12. stoletja dalje so bili pogosto opremljeni z zaščitno opremo, mečem in vse pogosteje so jezdili konje (France 1999, 27). Razlog je v tem, da sta se orožji dopolnjevali. Prednosti loka sta cenena izdelava in hitro izstreljevanje puščic. Prednosti samostrela sta večja natančnost in prebojnost. Prebojnost je sorazmerna, hitrost pa obratno sorazmerna s kinetično energijo puščice, saj je ta v praksi pomenila daljši čas napenjanja. Večja prebojnost, daljša priprava za strel torej.

Slednje je razvidno tudi s slike (*sl. 5.25*). Že sama ikonografija ponazarja zapisano misel: strelca z lokoma tik pred proženjem, strelec s samostrelom sredi napenjanja orožja. Še zgovornejši pa je položaj puščic. Strelca z lokom sta puščice zapičila v zemljo, čim bliže desni, napenjalni roki. Tako pripravljene puščice lahko strelec zgrabi takoj po strelu. Proženje, namestitev, naperjanje in ponovno proženje so tako združeni v tekoč gib. Strelec s samostrelom na omenjeni upodobitvi pa ima puščice spravljene v toku na pasu. Ker je postopek napenjanja s pomožnim vitlom tako dolgotrajen in zapleten, si strelec puščic ni zapičil v zemljo.

Crossbows were used in battle (*fig. 5.25*, *fig. 5.26*) as well as for hunting (Predovnik 2003, 92).

The bow and crossbow were used simultaneously throughout the High and Late Middle Ages, until they were gradually replaced with firearms. Archers with crossbows were usually highly regarded, and from the 12th century onwards they often wore protective equipment, a sword and rode horses (France 1999, 27). The reason for this coexistence lies in the fact that the bow and crossbow complemented one another. The advantages of the bow are cheap production and rapid shooting. The advantages of the crossbow are greater accuracy and stronger piercing power. The piercing power is proportional and the velocity inversely proportional to the kinetic energy of the arrow, which was in practice obtained through the arching time. The greater the piercing power, the longer the preparations for the shot.

The latter can also be seen from *figure 5.25*. The iconography depicts the previous idea: the archers with bows are just about to fire, while the archer with the crossbow is still arching his weapon. One can learn even more from the position of the arrows. The archers with bows stuck their arrows into the ground, as close as possible to the right (arching) hand. Arrows prepared in such a way can be picked up by the archer immediately after he releases the previous arrow. Releasing, placing, arching, aiming and releasing can be performed almost in a single swift motion. On the aforementioned depiction the archer with the crossbow has his arrows in a quiver hanging from his waist. Because the arching procedure with a cranequin is long lasting and complicated, the entire procedure would not benefit from sticking the arrows into the ground.

Various researchers have estimated that the average archer with a bow could shoot between 10 and 36 arrows per minute, while an archer with a crossbow could only manage 2 or 3 in the same period. As regards the kinetic energy of the arrow the crossbow without a winding mechanism (at which the archer could help himself with his legs) would be placed between the bow and the crossbow with a cranequin (Zimmermann 2000, 22–-23).

It is harder to estimate the accuracy of the missiles. An interesting experiment in England showed that the archers with a longbow could quite often hit the loopholes during a castle siege (Steane 1985, 43).

Hunting bows and crossbows were mainly intended for hunting big game. Piercing power was not of great importance for hunting, thus simple hunting bows are shorter, and hunting crossbows were arched without mechanical aids. During the hunt it was sufficient if the animal sustained a bleeding wound. In most cases the animal did not die on the spot, but started to run, and the hunters followed it – often with dogs (bloodhounds). Over time the animal became exhausted due to the blood loss. The arrowheads used for hunting were adjusted to this use. The broad flat arrow caused a large wound.

Glede na mnenja različnih raziskovalcev je povprečen strelec z lokom lahko izstrelil med 10 in 36 puščic na minuto, strelec s samostrelom pa 2 do 3. Glede na kinetično energijo izstrelka lahko med lok in samostrel z napenjalnim vitlom postavimo samostrel z napenjanjem brez mehanskega pomagala, pri čemer si je strelec lahko pomagal z nogami (Zimmermann 2000, 22–23).

Teže je ocenjevati natančnost izstrelkov. Zanimiv preizkus v Angliji je pokazal, da so strelci z dolgim lokom pri obstreljevanju gradu razmeroma pogosto zadeli strelne line (Steane 1985, 43).

Lovski loki in samostreli so bili namenjeni pretežno lovu na visoko divjad. Pri tem prebojnost izstrelka ni tako pomembna, zato so enostavni lovski loki krajši, lovske samostrele pa so napenjali brez mehanskih pomagal. Lovili so tako, da je lovec žival zastrelil in ji povzročil krvavečo rano. Žival običajno ne obleži, temveč začne bežati, lovci pa jo zasledujejo, na primer s pomočjo psov slednikov. Sčasoma žival zaradi izgube krvi omaga. Temu načinu so prilagojene tudi lovske puščične osti. Širok ploščat list povzroči veliko rano. Presegajoča krilca preprečujejo, da bi se puščica izdrla, in to dodatno otežuje gibanje zasledovane živali (Harmuth 2000; Schwenk 2000). Ta uporaba povzroči tudi pogosto poškodbo tovrstnih puščičnih osti, zlom enega od krilc (*t. 5: 14, 15*). Po zadetku se namreč puščica zaradi gravitacije postavi poševno. Po fizikalnem načelu sile ročice teža puščice deluje le na zgornje krilce, ki se pogosto zlomi. Krilce se lahko zlomi tudi, če se puščica, zadrta v žival na begu, zaplete v vejevje ipd. Takšna puščica je neuporabna in lastnik jo zavrže. Povsem umestna pa je tudi pripomba (Zimmermann 2000, 64), da se krilca takšnih puščičnih osti v arheoloških kontekstih velikokrat preprosto ne ohranijo, saj so narejena iz tanke pločevine.

Najpogostejša elementa za ločevanje puščičnih osti za lok ali samostrel sta teža in premer tula, redkeje dolžina (npr. Slivka 1980, 233–235; Nekuda 1985, 28; Krenn 1985, 47). Idealna puščica samostrela je opisana kot 390 milimetrov dolga, s premerom okoli 15 milimetrov in težka 60 do 70 gramov. 30 do 40 gramov, nikakor pa manj kot 28 gramov, naj bi tehtala puščična ost dolžine 70 do 80 milimetrov (Harmuth 1986, 84 in 172). Podobno mejno težo najtežje puščične osti za lok, 25 gramov, so postavili tudi drugi avtorji. Vendar je študija 86 v celoti ohranjenih puščic za samostrel nedoločene starosti, katerih stebla so povečini izdelana iz hrastovine, pokazala, da se je teža puščičnih osti gibala od 11 do 47 gramov. Premer tula je bil med 10 in 12 milimetrov (Zimmermann 2000, 20–21).

Za dober izstrelek je najpomembnejša uglašenost samostrela ali loka s puščico, pri čemer je končno obliko puščici kot celoti dal strelec sam. Puščico je z združevanjem skrbno izbranih surovin in oblik predvsem pravilno uravnotežil (Zimmermann 2000, 21). V tej luči lahko razložimo heterogenost velikosti in mase puščičnih osti. Teža in uravnoteženost stebla puščice sta odvisni

The wings hooked the arrow into the wound which made it additionally hard for the pursued animal to move (Harmuth 2000; Schwenk 2000). This type of use often resulted in damaged arrowheads, most often one of the wings would brake off (*t. 5: 14, 15*). Once the arrow hit its target gravity made it turn diagonally towards the ground. According to physical laws the force of the lever of the arrow weight was applied only to the upper wing, which thus often broke under pressure. The wing also broke if the arrow that hung from the animal on the run got stuck into branches. Such an arrow was no longer useful and was therefore discarded. Zimmermann (2000, 64) also explains that the wings of such arrowheads were often simply not preserved in archaeological contexts as they were so thin.

It is most commonly determined whether arrowheads were used on an arrow shot from a bow or crossbow by their weight and the diameter of the attachment cylinder, less commonly by their length (for instance Slivka 1980, 233–235; Nekuda 1985, 28; Krenn 1985, 47). The ideal crossbow arrow is 390 millimetres long, has a diameter of approximately 15 millimetres and weighs between 60 and 70 grams. Ideally the arrowhead has a length ranging between 70 and 80 millimetres and weighs between 30 and 40 grams, and certainly not less than 28 grams (Harmuth 1986, 84 and 172). Other authors set a similar top weight for the heaviest arrowhead for a bow, approximately at 25 grams. However, the study of 86 fully preserved oak shaft arrows for crossbows (of an indefinable age) has shown that the arrowheads weighed between 11 and 47 grams. The diameter of the attachment cylinder measured between 10 and 12 millimetres (Zimmermann 2000, 20–21).

In order for an arrow to make a good missile it has to be in tune with the crossbow or bow, thus the fine tuning of the arrow was made by the archer by combining carefully selected materials and forms (Zimmermann 2000, 21). Bearing this in mind we can explain the heterogeneity in the size and weight of the arrowheads. The weight and the balance of the arrow shaft depend on the specific weight of the wood, which depends on numerous factors, for instance the type of wood and the time of year it was cut. Only a broad pallet of various arrowheads therefore made it possible to find the right one for the individual arrow shaft. The fine tuning was concluded with the design of the arrow wings. The existence of the described process was confirmed by the measurement of 784 arrowheads from the arrowhead workshop in Sloszewy, Poland, that was destroyed in 1414. The results show that the mass of the arrowheads was left to the blacksmith and was hence more or less arbitrary (Zimmermann 2000, 133).

According to their use arrowheads are usually classified into military and hunting (*fig. 5.28;* for instance Krenn 1985, 55–56; Jessop 1996). The first are divided into various subgroups, for instance piercing and fire-star-

od specifične teže lesa, ta pa od številnih dejavnikov, na primer od vrste lesa in letnega časa, ko je bil ta odrezan. Le široka paleta različnih puščičnih osti je torej omogočala najti ravno pravšnjo za vsako steblo puščice. Končno uravnoteženje je bilo mogoče uravnavati še s krilci puščice. Potrditev te misli lahko poiščemo tudi v meritvah 784 puščičnih osti iz leta 1414 uničene delavnice puščičnih osti Sloszewy na Poljskem. Rezultati kažejo, da je bila masa puščičnih osti znotraj določenih okvirov prepuščena izbiri kovača (Zimmermann 2000, 133).

Puščične osti navadno delimo po namenu na vojaške in lovske (*sl. 5.28;* npr. Krenn 1985, 55–56; Jessop 1996). Prve delimo v več podskupin, na primer prebojne in zažigalne. Tudi oblika lovskih puščičnih osti se razlikuje glede na plen. Puščične osti v obliki lastovičjega repa smo opisali zgoraj. Da so bile za različne lovne živali v uporabi različne vrste puščičnih osti, dokazuje tudi najdba sprimka več različnih lovskih puščičnih osti s švicarskega jamskega gradu Riedtluh. Očitno gre za vsebino enega tula (Zimmermann 2000, 25–28). Puščične osti za lov na manjše ptice – tip A 4 po Ruttkayu (1976, Abb. 54) – na primer, so tope, saj ptico le omamijo. Običajna puščična ost bi plen tako razmesarila, da bi bil neuporaben. Pri tem ločevanju si le redko lahko pomagamo s sočasnimi upodobitvami, saj so puščične osti običajno prikazane ikonografsko in ne realistično. Vendar namenskost puščične osti vedno ne pogojuje tudi uporabe. To dokazujejo na primer puščične osti, izstreljene v napadu na južnočeško gradišče pri mestu Němětic konec 9. stoletja (Lutovský, Michalek 2001, Obr. 4 in Obr. 5). Obsegajo namreč celoten tipološki nabor puščičnih osti tistega časa.

Druga možnost je delitev glede na obliko puščične osti. Običajno je osnovna delitev glede na nasadilo, torej puščične osti s trnom in puščične osti s tulom (npr. Ruttkay 1976, 327–332; Slivka 1980, 234–244; Zimmermann 2000, 32–78; Odar 2006a, 269–270).

Izdelovanje puščičnih osti je bilo v visokem in poznem srednjem veku hitro in rutinsko, saj je šlo za blago široke potrošnje. Polizdelek za izdelavo je bila tanjša okrogla železna palica, ki so jo najprej razpolovili. Puščične osti s trnom so izdelali z vročim prekovanjem, za kar je kovač potreboval kladivo, nakovalo in ščipalke. Za izdelavo puščične osti s trnom je kovač razpolovljeno palico najprej prekoval v ploščico. Lovske puščične osti z močno presegajočimi krilci je bilo mogoče izdelati na dva načina, bodisi iz enega kosa bodisi s spajanjem dveh kosov (*sl. 5.27*). Kot kažejo moderni eksperimenti, je za izdelavo serije desetih puščičnih osti kovač potreboval približno 40 minut (Zimmermann 2000, 133–139).

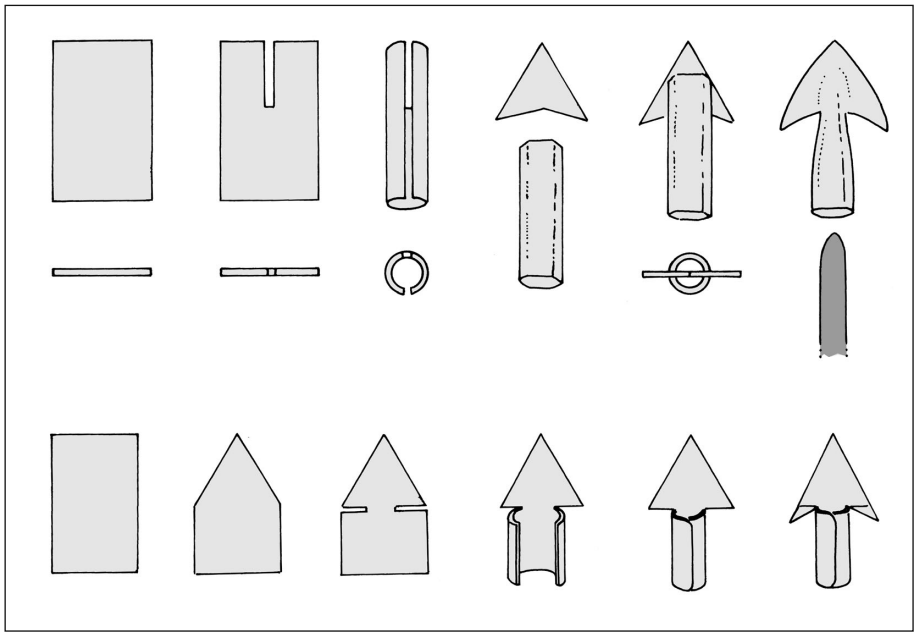
Na Malem gradu je bilo najdenih pet puščičnih osti. Dve sta puščični osti s tulastim nasadilom in krilci. Prva (*t. 5: 14*) ima ploščat prerez in meri v dolžino 6,8 centimetra. Glede na prerez sklepamo, da je bila puščična ost izdelana iz enega kosa pločevine (*sl. 5.27*, spodaj). Gre za lovsko puščično ost, natančneje tip H3 po Jessopu (1996, 200; *sl. 5.28*). Druga puščična ost s tulastim nasa-

ting. The shape of the hunting arrowheads differs regarding the prey. Arrowheads with the shape of a sparrow's tail - i.e. with wings - have already been described. The find of the conglomerate of various hunting arrowheads (obviously all from the same quiver) from the Swiss cave castle Riedtluh confirms that each hunter was equipped with several different arrows (Zimmermann 2000, 25–28). For instance arrowheads for hunting small birds – type A 4 in Ruttkay's classification (1976, Abb. 54) – are blunt for they are intended to merely stun the bird. A normal arrowhead could shred the bird into pieces and make it unusable for food. At this division we can only rarely help ourselves with depictions from the period, for arrowheads are usually shown iconographically and not realistically. However, the intended use of the arrowhead does not always condition its factual use. This is shown by the arrowheads that were fired in the attack on the South Czech fort near the town of Němětic at the end of the 9th century (Lutovský, Michalek 2001, Obr. 4 and Obr. 5). During this attack the entire typological spectrum of arrowheads known at the period was used.

The second possibility is the classification according to the shape of the arrowhead. Usually the main division takes into account the cylindrical attachment, i.e. the arrowhead with the tang and the arrowhead with the cylindrical attachment (for instance Ruttkay 1976, 327–332; Slivka 1980, 234–244; Zimmermann 2000, 32–78; Odar 2006a, 269–270).

In the High and Late Middle Ages manufacturing arrowheads was routine and fast, for they were widely used goods. The raw material used for manufacturing was a narrow circular iron rod that was halved. The arrowheads with a tang were manufactured by hot forging, for which the blacksmith needed a hammer, anvil and tongs. In order to produce an arrowhead with a tang the blacksmith forged the halved rod into a sheet. Hunting arrowheads with large wings could be forged in two ways, either from a single piece or by joining two pieces (*fig. 5.27*). As shown by modern experiments the blacksmith needed approximately 40 minutes to produce a series of 10 arrowheads (Zimmermann 2000, 133–139).

Five arrowheads were found at Mali grad. Two have a cylindrical attachment and wings. The first (*t. 5: 14*) has a flat cross-section and measures 6.8 centimetres in length. Taking into account its cross section it can be concluded that the arrowhead was manufactured from a single piece of sheet metal (*fig. 5.27*, below). This is a hunting arrowhead, type H3 in Jessop's classification (1996, 200; *fig. 5.28*). The second arrowhead with a cylindrical attachment and wings (*t. 5: 15*) is somewhat smaller (measuring 4.9 centimetres in length) and has a typical cylindrical cross-section. This indicates that the arrowhead was manufactured from two pieces of sheet metal. It is a multi-purpose arrowhead – type MP 8 in Jessop's classification (1996, 197) – the small size of which suggests that its primary use was for hunting.



Sl. 5.27: Shema postopka izdelave tulaste puščične osti s presegajočimi krilci iz dveh kosov pločevine (zgoraj) ali iz enega kosa pločevine (spodaj; po Zimmermann 2000, Tafel 36 in 37).
Fig. 5.27: The manufacturing process of a cylindrical arrowhead with wings from two parts of sheet metal (above) or from a single part of sheet metal (below; from Zimmermann 2000, Tafel 36 and 37).

dilom in krilci (*t. 5: 15*) je nekoliko manjša (dolžina 4,9 centimetra) in ima značilen tulast prerez. Ta kaže, da je bila puščična ost izdelana iz dveh kosov pločevine. Gre za večnamenski tip puščične osti – tip MP 8 po Jessopu (1996, 197) –, katere majhnost omogoča sklep, da je bila namenjena lovu.

Tulaste puščične osti s krilci, kakršni sta najdbi z Malega gradu, so v Veliki Britaniji datirane v sredino 13. stoletja. V nemško govorečih deželah srednje Evrope so v visokem srednjem veku tovrstne puščične osti – tip T 5–8 po Zimmermannu (2000, 64–65) – redke. Datirane so od 11. do 13. stoletja.

V vzhodni Evropi so tulaste puščične osti s krilci datirane na Slovaškem od 8. do 11. stoletja (Slivka 1980, 238), v Rusiji od 8. do 13. stoletja, na Madžarskem celo do15. stoletja. Na češkem najdišču Pusti hrad pri kraju Stare Zvolen je ležala takšna puščična ost v plasti z novcem, kovanim med 1272 in 1290 (Hanuliak 1999, 357 in Obr. 4). Za zgodnjesrednjeveške primerke je značilen daljši tul (Slivka 1980, 238–239; Bader 1998, Taf. 9: 361). Jessop (1996, Fig. 1; *sl. 5.28*) meni, da je dolžina tula pogojena z načinom uporabe.

Široka ploščata puščična ost (*t. 5: 16*) je preslabo ohranjena, da bi jo lahko natančneje opredelili. Lahko le ugotovimo, da gre za relativno veliko in masivno puščično ost, kakršne so pretežno bojne puščične osti (npr. tip MP 4 ali M 10 po Jessopu).

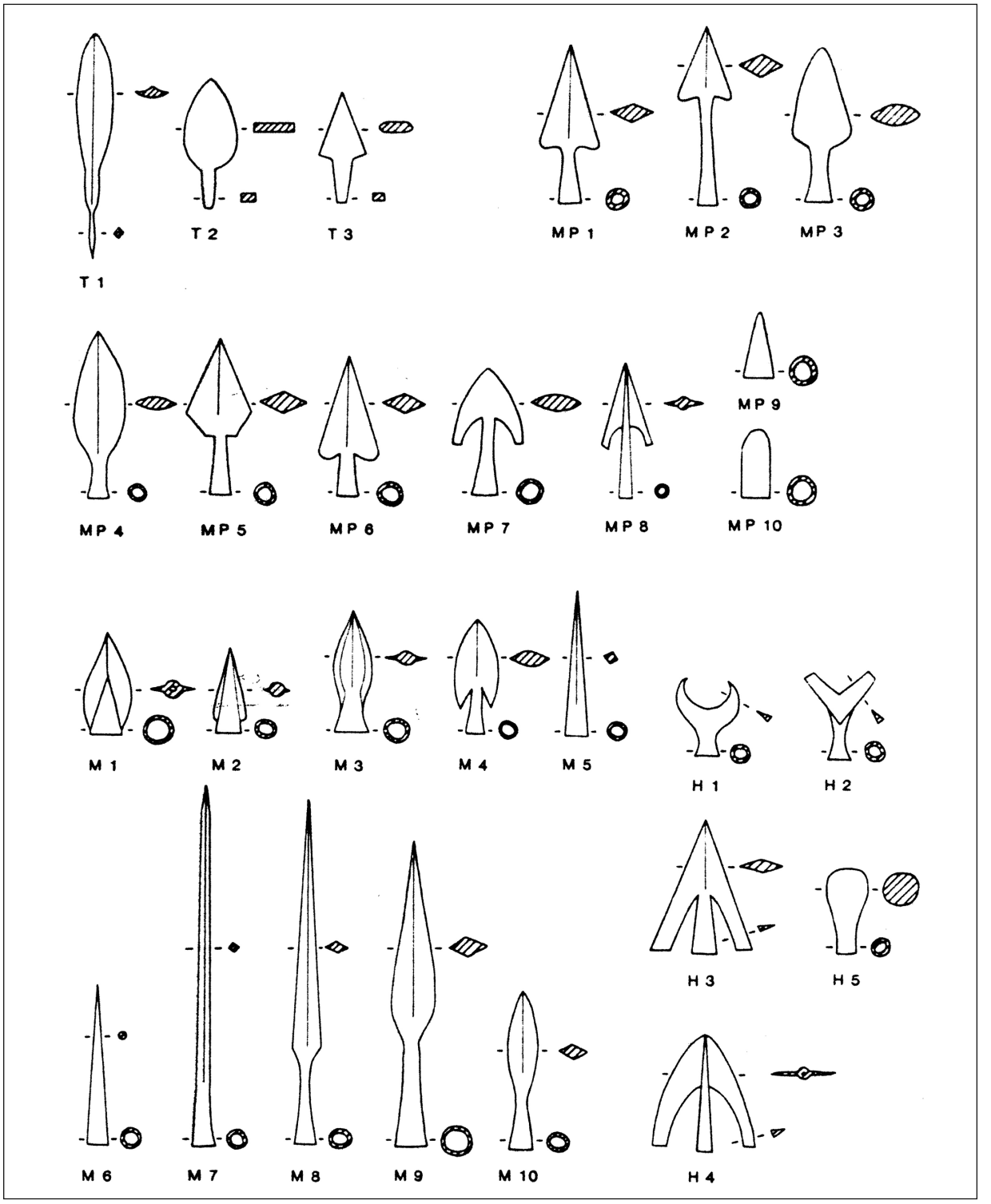
Naslednja med malograjskimi je tulasta puščična ost s ploščatim prerezom (*t. 5: 13*), tip T 5–4 po Zimmermannu (2000, Tafel 16). Gre za večnamensko

In England cylindrical arrowheads with wings - similar to the two finds from Mali grad - are dated to the mid 13th century. In the German speaking countries of Central Europe such arrowheads – type T 5–8 according to Zimmermann (2000, 64–65) – are rare in the High Middle Ages. The ones found date between the 11th and 13th century.

In the Slovak Republic cylindrical arrowheads with wings are dated between the 8th and 11th century (Slivka 1980, 238), in Russia between the 8th and 13th century, and in Hungary as late as the 15th century. At the Czech site of Pusty hrad near the settlement Stare Zvolen such an arrowhead lied in the same layer as a coin forged between 1272 and 1290 (Hanuliak 1999, 357 and Obr. 4). The mentioned analogies differ from the Early Medieval examples by a shorter cylindrical attachment (Slivka 1980, 238–239; Bader 1998, Taf. 9: 361). Jessop (1996, fig. 1; *fig. 5.28*) is of the opinion that the length of the cylindrical attachment is conditioned with use.

The wide flat arrowhead (*t. 5: 16*) from Mali grad is poorly preserved and can thus not be precisely defined. It can merely be ascertained that it is a relatively large and heavy arrowhead. Such arrowheads were mostly used in battle (for instance type MP 4 or M 10 according to Jessop).

The next from the Mali grad arrowheads is the one with a cylindrical attachment and a flat cross-section (*t. 5: 13*), type T 5–4 in Zimmermann's classification (2000, Tafel 16). This is a multipurpose arrowhead with an unknown use (type MP 4 according to Jessop). Unusual is



Sl. 5.28: Tipologija srednjeveških puščičnih osti glede na uporabo: puščične osti s trnom (T), večnamenske puščične osti (MP), vojaške puščične osti (M) in lovske puščične osti (H) po Jessopu (1996, Fig. 1). M. = 1 : 2.
Fig. 5.28: Typology of Medieval arrowheads as regards their use (Jessop 1996, Fig. 1): arrowheads with tang (T), multi-purpose arrowheads (MP), military arrowheads (M) and hunting arrowheads (H). Scale = 1 : 2.

puščično ost neznane uporabe (tip MP 4 po Jessopu). Zelo nenavadna je zaokrožena konica, ki priča, da gre za puščično ost s posebnim namenom, ki pa ga ne

the rounded end which indicates that this is an arrowhead with a special function that remains unidentified. It might be a rhombic arrowhead, but a similarly preserved find

poznamo. Morda bi šlo lahko za romboidno puščično ost, a skoraj enaka dobro ohranjena najdba z Otoka pri Dobravi (Šribar 1979, t. 33: 10) nakazuje, da je oblika namenska.

Na splošno gre za tip puščičnih osti, ki je znan že v zgodnjem srednjem veku, v visokem srednjem veku pa je zelo redek. Tipološko je ločevanje težavno. V nemško govorečih deželah je ta tip datiran v 11. in 12. stoletje, v Italiji tudi v 13. in 14. stoletje (Zimmermann 2000, 61–62). V Veliki Britaniji so takšne puščične osti datirane v sredino 13. stoletja. Primerjava s češkega gradu Sitne pri Banskej Štiavnici je datirana v 13. in 14. stoletje (Labuda 1999, Obr. 4: 5), na Pustem hradu pri kraju Stare Zvolen pa je bila takšna puščična ost najdena skupaj z novcem Ladislava IV. (1272–1290).

Za razliko od zgoraj naštetih sta puščični osti s trnastim nasadilom tipični za visoki in pozni srednji vek. Prva (*t. 5: 12*) ima masivno telo deltoidne oblike kvadratnega prereza. Gre za tipično bojno puščico – tip D 2-4 po Zimmermannu (2000, 75) –, katere namen je prebijanje oklepa. Nekoliko nenavadna je povsem enakomerna širina telesa, saj je za tovrstne puščične osti običajno, da so v zgornji tretjini nekoliko širše. Še bolj nenavaden je kvadraten prerez, ki pa je povsem običajen pri podobnih puščičnih osteh s tulom. Zdi se, da je bil kvadraten prerez pogostejši v vzhodni Evropi. Takšnih puščičnih osti verjetno niso uporabljali pred 12. stoletjem, v uporabi pa so bile tudi v 13. in 14. stoletju. Na Češkem in Slovaškem so takšne puščične osti datirane v 13. in začetek 14. stoletja (Unger, Nekuda 1981, Obr. 57: 3; Nekuda 1985, 28 in obr. 34: g; Labuda 2000, obr. 5: 2). Najbližjo primerjavo najdemo na najdišču Stari grad nad Podbočjem, kjer je stratigrafsko datirana v 15. stoletje (Predovnik 2003, sl. 76: 804).

Puščična ost z listastim telesom (*t. 5: 11*) je v vseh ozirih tipična bojna puščica – tip D 2–5 po Zimmermannu (2000, 76) oziroma tip 3.1 po Predovnikovi (2003, 94–95) – za prebijanje oklepa. Značilno je zožanje telesa v spodnji tretjini in razširitev v zgornji. Prerez v zgornji tretjini je deltoiden, v spodnji skoraj okrogel. Za takšne puščične osti najdemo številne primerjave v srednji Evropi, kjer so datirane pretežno v 13. in 14. stoletje, redkeje v 15. (Zimmermann 2000, 76). Podobne datacije veljajo tudi za Češko in Slovaško ter Rusijo, vendar se tam pojavljajo že od 12. stoletja dalje (Ruttkay 1976, 330; Slivka 1980, 234–238). Na najdišču Stari grad nad Podbočjem so štiri takšne puščične osti stratigrafsko datirane v 15. stoletje (Predovnik 2003, 97). Tri takšne puščične osti so znane tudi s stolpa na Kranclju v Škofji Loki (Kalan 1999, 2), kjer velja *terminus ante quem* 1515.

Vse puščične osti z Malega gradu bi po klasičnih delitvah (glej zgoraj) pripisali puščicam za lok.

Ena puščična ost (*t: 5: 15*) z Malega gradu stratigrafsko sodi v fazo 4b, preostalih stratigrafsko ni mogoče opredeliti.

from Otok pri Dobravi (Šribar 1979, t. 33: 10) shows that the shape has its purpose.

In general this is a type of arrowhead known in the Early Middle Ages, and rare in the High Middle Ages. Typologically they are hard to categorise. In the German speaking countries this type is dated into the 11th and 12th century, in Italy as late as the 13th and 14th century (Zimmermann 2000, 61–62). In England such arrowheads are dated into the mid 13th century. The comparison from the Czech castle Sitne close to Banska Štiavnica is dated into the 13th and 14th century (Labuda 1999, Obr. 4: 5)

The piercing arrowheads with a tang attachment are typical for the High and Late Middle Ages. The first Mali grad example (*t. 5: 12*) has a massive deltoid shape body with a square cross-section. It is a typical battle arrowhead – type D 2-4 in Zimmermann's classification (2000, 75) – the intention of which is to pierce armour. Somewhat unusual is the proportionate body width, for it is common for such arrowheads to be slightly broader in the top third. Even more unusual is the square cross-section that is common for similar arrowheads with a cylindrical attachment. It seems that the square cross-section was more common in Eastern Europe. Such arrowheads were most probably not in use before the 12th century, and they remained in use throughout the 13th and 14th century. In the Czech Republic and Slovakia such arrowheads are dated to the 13th century and beginning of the 14th century (Unger, Nekuda 1981, Obr. 57: 3; Nekuda 1985, 28 and obr. 34: g; Labuda 2000, obr. 5: 2). The geographically closest analogy can be found at the site Stari grad above Podbočje stratigraphically dated into the 15th century (Predovnik 2003, sl. 76: 804).

The arrowhead with a narrow body (*t. 5: 11*) is an armour piercing battle arrow – type D 2–5 according to Zimmermann (2000, 76) or type 3.1 according to Predovnik (2003, 94–95). Typical is the narrowing of the body in the lower third and the widening in the upper third. The cross-section in the upper third is deltoid, in the lower almost circular. We can find numerous comparisons in Central Europe, mainly dated to the 13th and 14th century, rarer into the 15th (Zimmermann 2000, 76). Similar dating is applicable for the Czech Republic and Slovakia as well as Russia, even though they appear there already from the 12th century onwards (Ruttkay 1976, 330; Slivka 1980, 234–238). At Stari grad above Podbočje four similar arrowheads were stratigraphically dated into the 15th century (Predovnik 2003, 97). Three similar arrowheads were found in the tower on Krancelj in Škofja Loka (Kalan 1999, 2). We know that the *terminus ante quem* for them is 1515.

According to the classification by weight (see above) all arrowheads from Mali grad would be categorised as belonging to arrows for bows.

One arrowhead (*t: 5: 15*) from Mali grad stratigraphically belongs into phase 4b, while the rest can not be stratigraphically defined.

5.7. NOŠA

V tem podpoglavju predstavljamo predmete, ki so verjetno sodili k noši. Pri tem ne poudarjamo interpretacije, le besedilo smo želeli narediti kar najbolj pregledno. Tako smo v to poglavje uvrstili tudi kragulǰček, ki je sicer večnamenski predmet. Na drugi strani pa na tem mestu ni nekaterih pasnih spon, ki so bile morda del noše.

Kragulǰček je priprava za proizvajanje zvoka, podobna manjšemu zvoncu. Od slednjega se loči po tem, da ima namesto visečega binglja kroglico, ki je nameščena v zaprti ali skoraj zaprti notranjosti pločevinaste krogle. Glede na tehniko izdelave ločimo vlite in pločevinaste kragulǰčke, ki so lahko kroglaste ali stožčaste oblike (Krabath 2001, 217). V visokem srednjem veku so najpogostejši kroglasti pločevinasti kragulǰčki s premerom od 1,5 do 3,5 centimetra (Spindler 1998, 38; Lungershausen 2004, 51), kakršen je tudi naš primerek.

Kroglasti pločevinasti kragulǰčki so praviloma izdelani iz štirih delov: dveh pločevinastih polobel, zanke in kroglice. Polobli sta izvihani, izvihka pa navadno spajkana. Spodnja polobla ima ozko režo, ki se konča z okroglima razširitvama.

Vsi deli so praviloma izdelani iz bakrove zlitine, le kroglica je najpogosteje železna, včasih tudi kamnita. Lastnosti bakrove zlitine namreč omogočajo idealno razmerje med obliko, trdnostjo in zvenom končnega izdelka. Čim manjša vsebnost kositra omogoča hladno obdelovanje 0,5 do 0,8 milimetra debele pločevine. Poleg bakrove so za izdelovanje kragulǰčkov uporabljali tudi medeninasto, srebrno ali zlato pločevino, pogosti so tudi pozlačeni kragulǰčki (Krabath 2001, 217, 219). Slednji so lahko tudi okrašeni z vrezi (npr. Velimský 2000, Obr. 3).

Na podlagi poznosrednjeveških in zgodnjenovoveških upodobitev ter sledov izdelave na predmetih je moč rekonstruirati način izdelave. Izdelovalec, na upodobitvah moški, je pločevino postavil na leseno podlago in s prebijačem z udarcem kladiva izdelal okrogle ploščice. Iz teh je skodelič̌asto poloblo naredil tako, da je ploščico polagal na modele oziroma negative z vedno večjo vdolbino in z vtiskalom preoblikoval polizdelek. Robove polkrogel je izvihal. Režo na spodnji polobli je izdelal tako, da je najprej izvrtal luknjici na zaključkih reže, vmesni prostor prežagal in nato izpilil. Žična zanka za obešanje kragulǰčka je bila pritrjena z zakrivljanjem v režo ali majhno luknjico na zgornji polobli. Robova obeh polobel je izdelovalec spojil s spajkom svinca in cinka ali z zapogibanjem. Zelo kakovostno spajkanje je znamenje kakovostne izdelave. Končni izdelek je bilo treba še spolirati (Spindler 1998, 38; Krabath 2001, 217–219).

Vsekakor pa najzanimivejše vprašanje pri kragulǰčkih zadeva njihov namen oziroma način uporabe. Že slovenska beseda kragulǰček (nem. *Schelle*), ki izvira iz imena vrste ptice ujede, kaže na enega izmed načinov uporabe predmeta. V 18. stoletju je beseda kragulj namreč

5.7. DRESS ACCESSORIES

In this subchapter objects that were most likely dress accessories are described. The rumbler bell was included into this subchapter even though it can be classified as a multi-purpose object for purposes of improved readability. For the same reason certain belt buckles that could have been dress accessories were not included.

The rumbler bell is an object intended for making sounds, similar to a small bell. It differs from the latter by the little ball that is placed in a closed or almost closed tin spherical interior which substitutes the hanging dangle. Taking into account the manufacturing technique rumbler bells are separated into cast and tin rumbler bells, with a round or cone shape (Krabath 2001, 217). Most common in the High Middle Ages were round tin rumbler bells with a diameter ranging between 1.5 and 3.5 centimetres (Spindler 1998, 38; Lungershausen 2004, 51), which corresponds to the Mali grad example.

Round tin rumbler bells were usually manufactured from four parts: two tin hemispheres, a loop and a small ball. The hemispheres were twisted towards the outside and the rims produced by this were usually soldered. The lower hemisphere had a narrow slot that ended with round holes sawed in.

As a rule all parts were made from a copper alloy, except for the little ball that was usually iron, or occasionally from stone. The copper alloy characteristics allow for an ideal relation between the shape, strength and sound of the final product. The small tin content enables the sheet metal to be cold-forged to a thickness between 0.5 and 0.8 millimetres. Copper, brass, silver or gold sheet-metal was used for manufacturing rumbler bells, common were also gilded rumbler bells (Krabath 2001, 217, 219). The latter were often engraved (for instance Velimský 2000, Obr. 3).

On the basis of the Late Medieval and Early Postmedieval depictions and traces of manufacturing found on the objects it was possible to reconstruct the manufacturing process. The manufacturer placed the sheet metal on a wooden surface and manufactured round pieces with a piercing tool and hammer. Then these pieces were placed onto models with an ever increasing hollow (i.e. negatives) in order to make a cup-like hemisphere. After this the edges of the hemispheres were turned out. The slot on the lower hemisphere was made by drilling two holes at the ends of the slot and then sawing through the tin in between. The wire loop used for hanging the rumbler bell was attached by bending it into a slot or a small hole in the upper hemisphere. The manufacturer joined the edges of the two hemispheres by soldering them with a mixture of lead and zinc or by bending. High quality soldering is a sign of high quality manufacturing. In the end the final product was polished (Spindler 1998, 38; Krabath 2001, 217–219).



Sl. 5.29: Upodobitev lovske ptice na visokem drogu s pritrjenim kragulǰkom; na drogu je tudi rokavica za sokolarstvo; risba po freski v kraju Lana (po Spindler 1998, Abb. 6).
Fig. 5.29: Depiction of a hunting bird on a high pole with an attached rumbler bell; on the pole is also a glove for hunting with a bird of pray; sketch made from a fresco in Lana (from Spindler 1998, Abb. 6).

sinonim za ptico ujedo in kragulǰček, iz česar izvira tudi glagol kraguljati v pomenu zvonc̆kljati (Bezljaj 1982, 78, geslo kragulj I). Kragulǰcki so bili sestavni del sokolarstva, lova s pticami ujedami. Običajno so jih pritrdili ptici na repno pero (*sl. 5.29*). Kragulǰcke so pritrjevali tudi na ujete okrasne ptice s prirezanimi krili. Zvonc̆kljanje je lastniku omogočilo, da je našel pobeglo ptico (Spindler 1998, 40–42). Vendar kot zanesljiv dokaz sokolarstva na kakem gradu lahko štejemo le najdbe kosti ptic, ki so jih uporabljali za lov (Spindler 1998, 20–23).

Še pogostejša je v srednjem veku uporaba kragulǰckov kot dodatka oblačilom (*sl. 5.30*) in konjski opravi. Kot dodatek na pasu okoli boka ali ramen so kragulǰcki upodobljeni na preprogi iz Porenja in na portalu ene od praških cerkva s konca 14. stoletja. Takšni pasovi so bili priljubljeni vse do konca 16. stoletja. Kragulǰcki so bili lahko prišiti tudi na rob oblačil, na Češkem, Moravskem in Madžarskem pa je dokumentirana uporaba kragulǰckov kot gumbov. Znamenita dvokraka pokrivala dvornih norčkov s kragulǰckom na koncu krakov so dokumentirana od prve polovice 14. do 16. stoletja (Krabath 2001, 221–222; glej tam navedeno literaturo), znana je tudi uporaba na konceh v konico zašiljenih čevljev (Spindler 1998, 40). Poleg dvornih norčkov so bile s kragulǰcki označene še nekatere posebne družbene skupine. V nekaterih mestih so kodeksi oblačenja k nošenju kragulǰckov in zvonc̆kov obvezovali na primer prostitutke. Z zvonc̆kljanjem na oblačilo pritrjenih kragulǰckov in zvonc̆kov so nase opozarjali tudi duševno zaostali. Predvsem v Angliji so v nekaterih primerih kragulǰcki označevali duhovnike in romarje. Zanimiv je tudi predpis, ki je vsaj od 16. stoletja dalje zavezoval vajence v kovnicah denarja k nošenju kap, podobnih kapam dvornih norčkov (Lungershausen 2004, 51–52). Za Anglijo velja,

The most interesting question as regards the rumbler bells deals with their purpose or the way they were used. The Slovene word kragulǰček (Ger. *Schelle*), which is derived from the name of the bird of pray (kragulj – hawk) denotes one of the ways this object was used. In the 18th century the word kragulj was a synonym for a bird of pray as well as a rumbler bell (Bezljaj 1982, 78, entry kragulj I). Rumbler bells played a role in the hunting with hawks. Usually the hunters attached them to the hawk's tail feather (*fig. 5.29*). Rumbler bells were also attached to captured decorative birds with clipped wings, for its tinkling helped the owner find the escaped bird (Spindler 1998, 40–42). However, to be certain that hunting with hawks was practised at a castle we need to find the bones of hunting birds (Spindler 1998, 20–23).

Even more common in the Middle Ages was the use of rumbler bells as a dress accessory (*fig. 5.30*) or a part of a horse harness. On the carpet from the Rhone valley region and on the portal of one of the Prague churches from the end of the 14th century rumbler bells are depicted as an addition on the belt carried around the waist or shoulders. Such belts were popular until the end of the 16th century. Rumbler bells could be sawn onto the edges of clothes. In the Czech Republic, Moravia and Hungary they were also used as buttons. The famous hats worn by court jesters which had a rumbler bell on the end of each



Sl. 5.30: Srednjeveške upodobitve uporabe kragulǰckov in zvonc̆kov kot del noše (po Krabath 2001, Abb. 21): **(a)** dvorna norčka (l. 1340), **(b)** izobčeni, morda umsko zaostal prosjak (po l. 1295) in **(c)** dodatek na svečanih oblačilih (l. 1385).
Fig. 5.30: Medieval depictions of the use of rumbler bells and bells as a dress accessorie (taken from Krabath 2001, Abb. 21) of a: **(a)** court jester (1340), **(b)** the outcast, maybe a mentally handicapped beggar (post 1295) and **(c)** as an accessory on an evening dress (1385).

da so dvorni norčki, duhovniki in romarji kraguljčke nosili že v 13. stoletju, kot modni dodatek običajnim oblačilom pa so jih pogosteje uporabljali šele od poznega 14. stoletja dalje (Egan, Pritchard 2002, 336).

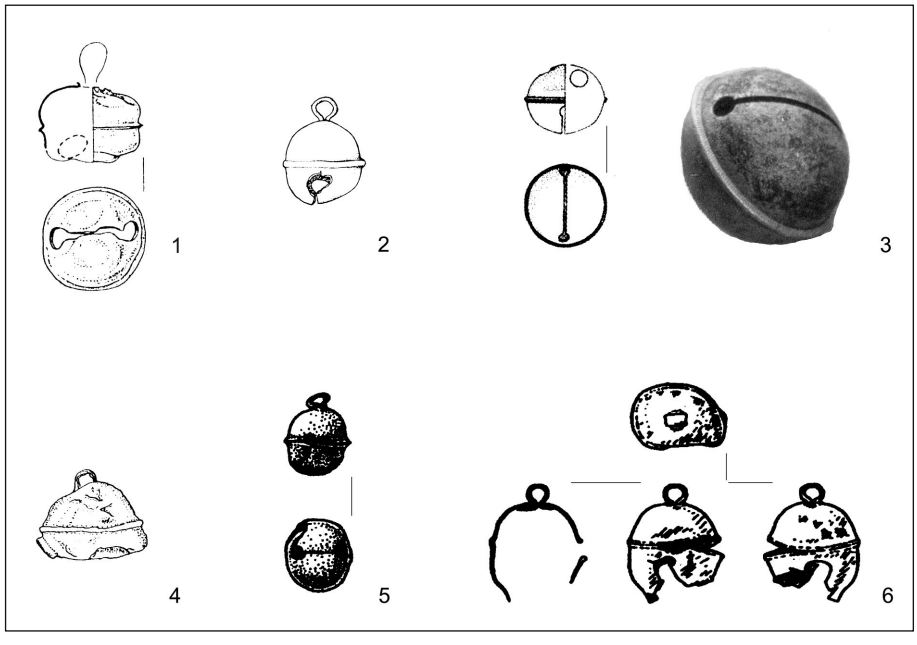
Nekoliko zgodnejše so upodobitve kraguljčkov kot dela konjske opreme. Kraguljčki so bili prišiti sprva na prsni jermen in na jermenu za sedlom (okoli l. 1200, Anglija). Na ta način so jih uporabljali še v 14. stoletju, pozneje pa so bili pritrjeni tudi na vajeti. Tudi lovski psi vojvode Haralda, upodobljeni na tapiseriji iz Bayeuxa (Grape 1994, 92), imajo na ovratnicah najverjetneje kroglaste kraguljčke, za katere pa se zdi, da niso pločevinasti. Upodobitev iz 14. stoletja pa prikazuje verjetno pločevinaste kraguljčke na pasji ovratnici (Krabath 2001, 223).

Kroglasti pločevinasti kraguljčki – tip 1 po Krabathu (2001, 215–225) oziroma D1 po Spindlerju (1998, 32–38) – so najpogosteje datirani v 13. in 14. stoletje. Med najstarejšimi sta kraguljčka iz severnonemških mest Lübeck in Braunschweig, prvi datiran med okoli 1200 in okoli 1230/40. Sicer pa so številne najdbe kraguljčkov severno od Alp datirane od 13. do 16. stoletja (Krabath 2001, 219; York: Ottaway, Rogers 2002, fig. 1515: 14489; Braunschweig: Lungershausen 2004, 53). Iste so datacije za kraguljčke iz alpskih dežel, kjer pa je težišče uporabe moč slutiti v sredini in drugi polovici 14. stoletja (Spindler 1998, 38 in Abb. 16: 28–38; 17: 39–56).

Najpogosteje najdemo neposredne primerjave kraguljčku z Malega gradu (*t. 5: 6*) na gradovih (prim. Spindler 1998, 38), na primer na najdiščih Mstěnice na Češkem

of its points were documented between the first half of the 14th century and the 16th century (Krabath 2001, 221–222; see cited literature). Rumbler bells were also known to be used attached to the tips of pointed shoes (Spindler 1998, 40). Apart from court jesters certain other social groups were also marked with rumbler bells. In some towns the dress code demanded that prostitutes wear rumbler bells or some other sort of bell. The tingling of rumbler bells or bells sewn onto clothes also drew attention to the mentally handicapped. In England rumbler bells were sometimes worn by priests and pilgrims. There was also a regulation that demanded (at least from the 16th century onwards) from apprentices working in coin mints to wear hats similar to those worn by court jesters (Lungershausen 2004, 51–52). In England court jesters, priests and pilgrims wore rumbler bells already in the 13th century, while they became worn by ordinary citizens as a fashion accessory only in the late 14th century (Egan, Pritchard 2002, 336).

Somewhat earlier are the depictions of rumbler bells as a part of the horse equipment. Rumbler bells were at first sewn onto chest belts and saddle belts (around 1200, England). They were used in the same way in the 14th century, while later they were also attached to the bridle. The hound dogs of Duke Herald, depicted on the tapestry from Bayeux (Grape 1994, 92), most likely wore bells on their collars; however they appear not to be rumbler bells. The 14th century depiction most likely shows rumbler bells on the dog collar, though (Krabath 2001, 223).



Sl. 5.31:. Nekateri kroglasti pločevinasti kraguljčki s slovenskih najdišč: (1) Mali grad, (2) Mengeš (Vuga 1975, Fig. 7: 6), (3) Tolmin (Mlinar 2005, *sl.* 9 in *sl.* 10: 6), (4) Otok pri Dobravi (Šribar 1979, t. 16: 10), (5, 6) Stari grad nad Podbočjem (Predovnik 2003, sl. 73: 713 in sl. 79: 924). Merilo 1 : 2 (merilo fotografije 1 : 1).

Fig. 5.31:. Round sheet metal rumbler bells from Slovene sites: (1) Mali grad, (2) Mengeš (Vuga 1975, Fig. 7: 6), (3) Tolmin (Mlinar 2005, *sl.* 9 and *sl.* 10: 6), (4) Otok pri Dobravi (Šribar 1979, t. 16: 10), (5, 6) Stari grad above Podbočje (Predovnik 2003, sl. 73: 713 and sl. 79: 924). Scale 1 : 2 (photography 1 : 1).

(Nekuda 1985, Obr. 216n) in Alt-Wartburg (Meyer 1974, 96, D7), Scheidegg (Ewald, Tauber 1975, 70, G 9) ter Alt-Wädenswil v Švici (Biterli, Grütter 2001, Taf. 33: 375).

Karta razprostranjenosti kroglastih pločevinastih kraguljčkov (Krabath 2001, Karte 56) kaže, da so severno od Alp najpogostejši v Angliji, Franciji in Nemčiji. K temu poleg omenjenih primerkov iz alpskih dežel lahko dodamo šest primerkov iz Slovenije (*sl. 5.31*).

Kroglasti pločevinasti kraguljček z Malega gradu sodi s svojim premerom 2,8 centimetra med srednje velike. Del zgornje poloble, kjer je bila pritrjena zanka, je uničen. Ta poškodba kaže, da je bil predmet verjetno izgubljen med uporabo. Kot smo omenili zgoraj, predmeta tipološko ni mogoče namembnostno ali časovno opredeliti.

Na koncu lahko le povzamemo, da je kraguljček zanimiv, a časovno, prostorsko in namembnostno zelo razširjen predmet. Ravno zaradi te razširjenosti včasih pričakovanja presegajo dejansko izpovednost predmeta, kadar ta nima konteksta.

Kraguljčka z Malega gradu ni mogoče stratigrafsko opredeliti.

Valjček iz bronaste pločevine (*t. 7: 12*) morda lahko opredelimo kot *okov vezalke* za zavezovanje životca (*sl. 5.32*). Pri izkopavanjih v Londonu so takšni predmeti datirani od druge tretjine 13. stoletja do konca srednjega veka. Razmeroma enostavne predmete, skoraj vedno izdelane iz bakra, tipološko ločujemo glede na obliko v prerezu in glede na zaključek (*sl. 5.33*; Egan, Pritchard 2002, 281–282). Malograjski predmet torej lahko opišemo kot okov vezalke s presegajočim spojem in neprirezanim zaključkom. Opre-

The round rumbler bells – type 1 in Krabath's (2001, 215–225) or D1 in Spindler's classification (1998, 32–38) – are most commonly dated into the 13th or 14th century. Amongst the oldest are the rumbler bells from the Northern German towns Lübeck and Braunschweig, the first dating to around 1200 and the second to around 1230/40. Numerous finds of rumbler bells north of the Alps are dated between the 13th and 16th century (Krabath 2001, 219; York: Ottaway, Rogers 2002, fig. 1515: 14489; Braunschweig: Lungershausen 2004, 53). In Alpine countries rumbler bells were most commonly used in the mid and second half of the 14th century (Spindler 1998, 38 and Abb. 16: 28–38; 17: 39–56).

The most common direct analogies for the rumbler bell from Mali grad (*t. 5: 6*) can be found in castles (cf. Spindler 1998, 38), for instance in Mstěnice in the Czech Republic (Nekuda 1985, Obr. 216n) or Alt-Wartburg (Meyer 1974, 96, D7), Scheidegg (Ewald, Tauber 1975, 70, G 9) and Alt-Wädenswil in Switzerland (Biterli, Grütter 2001, Taf. 33: 375).

The distribution map of round rumbler bells made of sheet metal (Krabath 2001, Karte 56) shows that North of the Alps they were most commonly found in England, France and Germany. Six examples from Slovenia can be added (*fig. 5.31*) to the previously mentioned examples from the Alpine countries.

With a diameter of 2.8 centimetres the round sheet metal rumbler bell from Mali grad is a midsized one. The part of the upper hemisphere to where the loop was atta-



Sl. 5.32: T. i. mojster Wavrin, 15. stoletje: *Priprava na kopel*; v sosednji sobi služabnica vrta luknjo za opazovanje (po Egan, Pritchard 2002, Fig 186).
Fig. 5.32: Wavrin Master, 15th century: *Preparation for bathing*; in the next room the servant girl is drilling a peep-hole (from Egan, Pritchard 2002, Fig 186).

delitev okovov vezalk je sicer problematična. Značilnosti so raven spoj, stožčasta oblika in bakrena zlitina. Za malograjski predmet brez laboratorijskih raziskav ne moremo natančneje ugotoviti, iz kakšne zlitine je narejen.

Okova vezalke z Malega gradu ni mogoče stratigrafsko opredeliti.

Emajliran bronast okov (*t. 7: 13*) z motivom ptic ob drevesu življenja sodi zaradi načina pritrjevanja h konjski opravi ali nožnici meča (prim. Sagadin 2001, 369, ki meni, da gre za pravokotno fibulo). Zelo dobro primerjavo najdemo v zgornjeavstrijski utrdbi Burgstall Pfaffstätt, ki jo povezujejo s sistemom utrdb, t. i. madžarsko zaporo. Ta je na podlagi najdb datirana v drugo polovico 9. in prvo polovico 10. stoletja (Pollak 2005, 663 in 668 ter Abb. 7 in Taf. 2:7; za madžarsko zaporo glej npr. Ettel 2001, 195–242; Ettel 2006). Vendar so nekatere najdbe s tega najdišča vsaj visokosrednjeveške, na primer puščične osti tipov T2–5l in D2–4 po Zimmermannu (2000, 51–52 in 76; Pollak 2005, Tafel 4: 29–30 in 38) ter ključavniške kretnice z utorom (prim. poglavje 5.2.; Pollak 2005, Tafel 7: 62–65). Za časovno opredeljevanje predmeta si torej ne moremo pomagati s kontekstom najdišča. Pfaffstätski okov se od kamniškega razlikuje le po tem, da ima ohranjene ostanke pozlate. Skoraj identičen je tudi okov z zgornjefrankovskega najdišča Friesen, Stadt Kronach, ki je tipološko umeščen v t. i. stopnjo Köttlach II po Gieslerju oziroma v 9. in 10. stoletje (Wieczorek, Hinz 2000, 174). Primerjava slednjega z malograjskim okovom je posebej zanimiva zaradi zrcalne simetrije, ki jo kažeta predmeta (*sl. 5.34*). Oba sta namreč rahlo rombična, kar bi lahko kazalo, da gre za del pasnega sestava za pripenjanje meča s poševnim jermenom. Na teh namreč najdemo rombične okove.

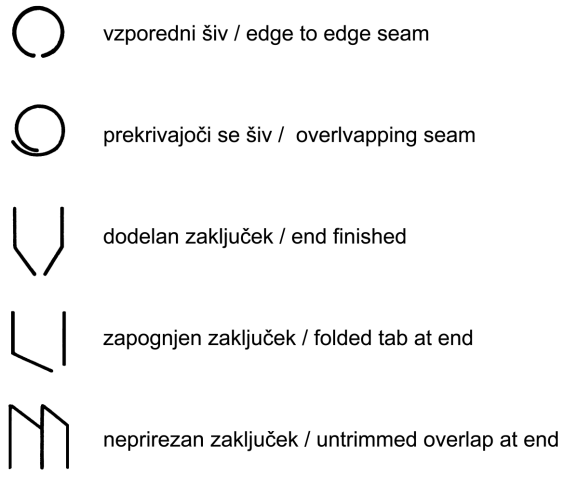
Izjemna podobnost teh treh predmetov ponuja oporo razmišljanju o neposredni povezavi med njimi, na primer v smislu iste delavnice ali iste predloge.

Zelo podoben je tudi okov z neznanega madžarskega najdišča. Predmet je pozlačen, od naštetih pa se razlikuje po obrobi v obliki bisernega niza (*sl. 5.34*: d; Korošec 1979, t. 121: 1; Lovag 1999, 103, Abb. 283[2]).

Emajliran bronast okov z Malega gradu stratigrafsko sodi v fazo 3.

Negotovi smo tudi pri opredelitvi *okrogle kovice* iz neznane zlitine (*t. 7: 11*). Verjetno gre za okrasno kovico, kakršne najdemo pritrjene na različne kose noše, bodisi izključno za okras bodisi za pritrjevanje različnih okovov. Navadno so bile pritrjene na pasove in drugo jermenje. Krasilna vrednost je temeljila na vzorcu, ki ga je predstavljalo večje število kovic. V Londonu se okrogle kovice pojavljajo od zadnje tretjine 13. stoletja dalje (Egan, Pritchard 2002, 162–166). Problematičen pri opredeljevanju malograjskega predmeta je spodvihan rob, razviden iz prereza. Poleg tega predmet ni ohranjen v celoti, tako da ne moremo biti prepričani, da gre res za kovico.

[2] Za podatek se zahvaljujem Andreju Preložniku.



Sl. 5.33: Tipologija okovov vezalk (prirejeno po Egan, Pritchard 2002, Fig. 182).
Fig. 5.33: Typology of lace chapes (adapted from Egan, Pritchard 2002, Fig. 182).

ched was destroyed. This damage shows that the object was most likely lost during its use. As we have already mentioned, the object can not be typologically defined as regards its purpose or time of origin.

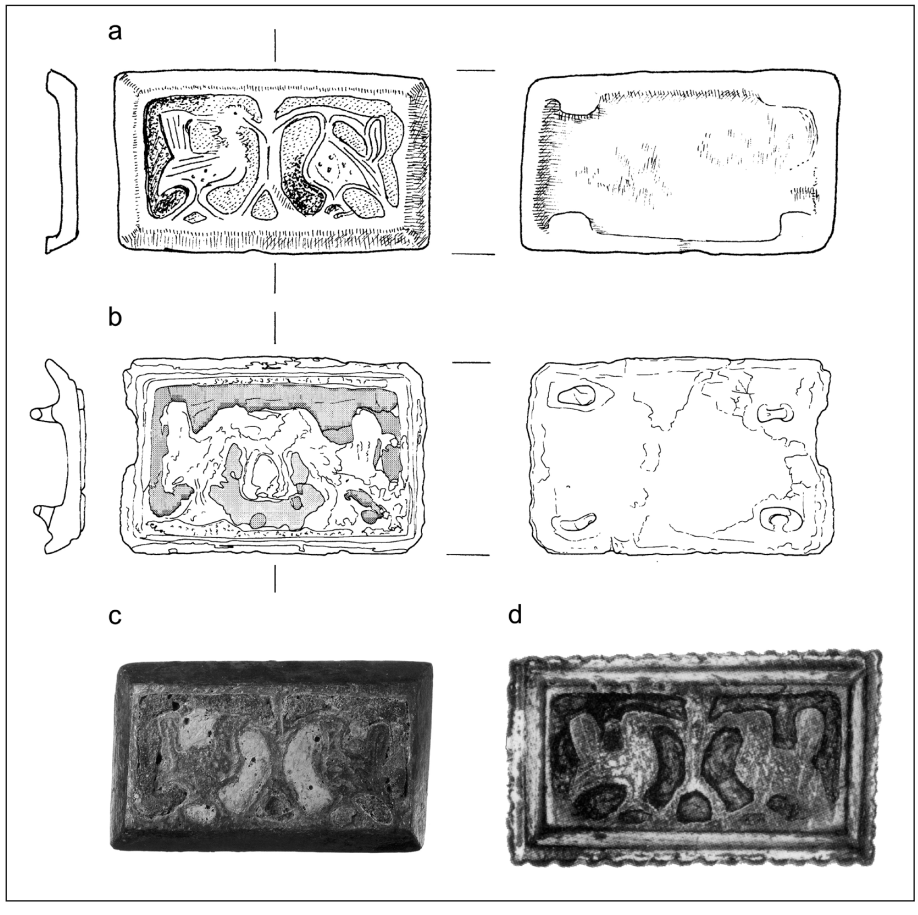
In the end we can merely conclude that the rumbler bell is an interesting, but extremely common object through time and space and has a variety of uses. Because it was so widespread the expectations sometimes surpass the actual interpretation value of the object when found outside of context.

The rumbler bell from Mali grad can not be stratigraphically placed.

The small roller from bronze sheet metal (*t. 7: 12*) might be described as the tip of the lace used for tying the body, the *lace chape* (*fig. 5.32*). In the London excavations such objects were dated from the second third of the 13th century to the end of the Middle Ages. Relatively simple objects, almost always made from copper, are typologically divided as regards the shape of the cross-section and their ending (*fig. 5.33*; Egan, Pritchard 2002, 281–282). The Mali grad object can be described as a lace chape with an overreaching joint and an uncut tip. The definition of lace chapes is problematic. Their characteristics are a straight joint, cone shape and copper alloy. Laboratory research would have to be conducted in order to precisely ascertain from what sort of an alloy was the Mali grad object made.

The lace chape from Mali grad can not be stratigraphically defined.

From its attachments it is clear that the *square pendant* with enamel inset representing two birds facing a tree of life (*t. 7: 13*) belongs to a horse harness or a sword sheath (cf. Sagadin 2001, 369, who is of the opinion that it is a rectangular broche). An excellent analogy can be



Sl. 5.34: Emajlirani bronasti okovi z **(a)** Malega gradu (po Sagadin 2001, *sl.* 10), z najdišča **(b)** Burgstall Pfaffstätt (Pollak 2005, Taf. 2:7), z najdišča **(c)** Friesen, Stadt Kronach (Wieczorek, Hinz 2000, 07. 04.13) in **(d)** z neznanega madžarskega najdišča (Lovag 1999, Abb. 283). Merilo 1 : 1.
Fig. 5.34: Enamelled bronze pendant from **(a)** Mali grad (Sagadin 2001, *sl.* 10), **(b)** Burgstall Pfaffstätt (Pollak 2005, Taf. 2:7), **(c)** Friesen, Stadt Kronach (Wieczorek, Hinz 2000, 07. 04.13) and **(d)** an unknown Hungarian site (Lovag 1999, Abb. 283). Scale 1: 1.

Kovice z Malega gradu ni mogoče stratigrafsko opredeliti.

5.8. NOVČNE NAJDBE

Na Malem gradu so med izkopavanji našli 5 novcev, ki pa so žal izgubljeni. Ohranili so se le objavljeni podatki o enem rimskodobnem novcu in dveh visokosrednjeve-

found in the Upper Austrian fort Burgstall Pfaffstätt that is linked to the system of fortifications known as the Hungarian barrier. Taking the finds into account this was dated into the second half of the 9th century and first half of the 10th century (Pollak 2005, 663 and 668 as well as Abb. 7 and Taf. 2:7; for Hungarian barrier see Ettel 2001, 195–242; Ettel 2006). However some finds from this site are younger, at least from the High Medieval period, for instance the arrowheads type T2-5l and

Št. / No.	Opredelitev / Definition	Datacija / Datation	SE / SU	Faza / Phase	Vir / After
1	Licius I	l. / y. 320.	1992/30	3	Šemrov 1998, št. 82
2	srebrnik / silver coin, Eberhard II.	ok. / approx. 1180	1986/09	4a	Sagadin 1997a, 108
3	srebrnik, kostanjeviška kovnica / silver coin forged in Kostanjevica	l. / y 1250-1280	1994/01	4b	Sagadin 1997a, 108
4	srebrnik / silver coin	neznana / unknown	1992/06	4b	terenski dnevnik / field diary
5	beneški novec / Venetian coin	neznana / unknown	1994/07	5	terenski dnevnik / field diary

Sl. 5.35: Mali grad, novci.
Fig. 5.35: Mali grad, coins.

ških novcih (*sl. 5.35*). Stratigrafsko opredelitev novcev smo rekonstruirali na podlagi objavljenih podatkov in zapisov v terenskih dnevnikih.

5.9. OSTALO

V tem poglavju predstavljamo predmete, katerih namembnosti ni mogoče ali pa je še ne znamo zanesljivo opredeliti.

Železna veriga iz kavljastih členkov (*t. 6: 1*) morda predstavlja del pasu sklepanca. Primerjav za ta predmet ne poznamo. Na Malem gradu stratigrafsko sodi v fazo 4b.

Zanimiva predmeta sta *železna zvezdasta okova* (*t. 6: 4, 5*). Gre za odlomka, ki sta bodisi del istega predmeta ali odlomka para enakih predmetov. Na pločevinast trak je prikovan okras v obliki šestkrake zvezde. Morda gre za dele svečnika, podobne tistemu s švicarskega gradu Frohburg, ki je datiran v čas okoli leta 1200 (Krauskopf 2005, 158, t. 8: 3).

Zvezdastih okovov z Malega gradu ni mogoče stratigrafsko opredeliti.

Med najdbami je tudi kos močno korodirane *verige* s tremi *osmičastmi členki* in pritrdilnim členkom (*t. 6: 2*). Gre za razmeroma velike členke, dolge 6,8 centimetra, kovane iz palice s premerom 0,8 centimetra. Osmičasti členki različnih velikosti so v visoko- in poznosrednjeveških kontekstih razmeroma pogosti. Osmičast členek s pritrdilnim členkom najdemo na vojvodinskem najdišču Veliki Gradac, datiranem v 10. in 11. stoletje (Janković 1981, t. 2: 45). Majhni osmičasti členki dolžine 0,5 centimetra so bili najdeni v zalogi starega železa vaške kovačije na češkem najdišču Sezimově Ústí-Nové Město, opuščenem pred letom 1420 (Krajíc 1993, Obr. 11B: 8942, 17432). Posamezni osmičasti členki so bili najdeni tudi na v 13. stoletju uničenem švicarskem gradu Clanks (Reding 2005, Taf. 11: 123–126), na švicarskem gradu Madeln pa so sestavni del nanožnih in ročnih lisic (Marti, Windler 1988, 109–110, Taf. 16: 181, 182). Enkrat večji od malograjskih so bili osmičasti členki verige za dvigovanje lesenega vedra iz yorškega vodnjaka iz zgodnjega 15. stoletja (Ottaway, Rogers 2002, Fig. 1391: 8742), le nekoliko manjši pa so bili osmičasti členki na istem najdišču v kontekstu iz 15. in 16. stoletja (Ottaway, Rogers 2002, Fig. 1429: 12479–81, 12485).

Na Malem gradu tega predmeta ni mogoče stratigrafsko opredeliti.

Za *okroglo cedilo* (*t. 7: 4*) iz bronaste pločevine ne poznamo dobre primerjave. Preluknjana pločevina iz visokosrednjeveškega konteksta na nemškem najdišču Ulm-Eggingen ni interpretirana (Kind 1989, Taf. 120: 14, 18), kot tudi ne podoben predmet s švicarskega gradu Zug (Grünenfelder et al. 2003, Taf. 27: 489). Fragment železnega cedila z najdišča Scheidegg, datiran v 13. in 14. stoletje, je bil prvotno verjetno pravokotne oblike (Ewald, Tauber 1975, 67, F 71).

D2-4 according to Zimmermann's classification (2000, 51–52 and 76; Pollak 2005, Tafel 4: 29–30 and 38) and the bolts from the rotary lock (cf. chapter 5.2.; Pollak 2005, Tafel 7: 62–65). The site does therefore not offer a good context for dating the object. The Pfaffstät pendant differs from the one found on Mali grad only by the remains of the gilding. Almost identical is the pendant from Friesen, Stadt Kronach, which was typologically placed into the so-called Köttlach II level according to Giesler, i.e. the 9th and 10th century (Wieczorek, Hinz 2000, 174). The comparison of the later with the Mali grad shackle is especially interesting due to the mirror symmetry shown by the two objects (*fig. 5.34*). Both are slightly rhombic, which could indicate that they were a part of a belt attachment for a sword sheath.

The exceptional similarity of these three objects leads us to believe that a direct link exists between them, for instance, that they were made in the same workshop or with the use of the same model.

The pendant from the unknown Hungarian site is also extremely similar. The object is gilded and differs from the rest by its edge in the shape of a pearl line (Korošec 1979, t. 121: 1; Lovag 1999, 103, Abb. 283[2]; *fig. 5.34*: d).

The enamelled bronze pendant from Mali grad stratigraphically belongs into phase 3.

We are also uncertain as regards the *round rivet* from an unknown alloy (*t. 7: 11*). It was most likely a decorative rivet, such as were usually found attached to various pieces of clothes, either exclusively as a decorative piece or for attaching various shackles. Usually they were attached to belts and other straps. The decorative value was based on the pattern that was made from a greater number of rivets. In London round rivets appear from the last third of the 13th century onwards (Egan, Pritchard 2002, 162–166). For the definition of the Mali grad object the rounded edge, seen from the cross-section, is problematic. The object is also not preserved in its entirety, thus we can not be certain that we are dealing with a rivet.

The rivet from Mali grad can not be stratigraphically placed.

5.8. COINS

5 coins were found during the Mali grad excavations, unfortunately they have been lost. All that remains is the published data on one Roman coin and two High Medieval coins (*fig. 5.35*). The coins were stratigraphically placed on the basis of the published data and records in the field diary.

[2] I would like to thank Andrej Preložnik for this information.

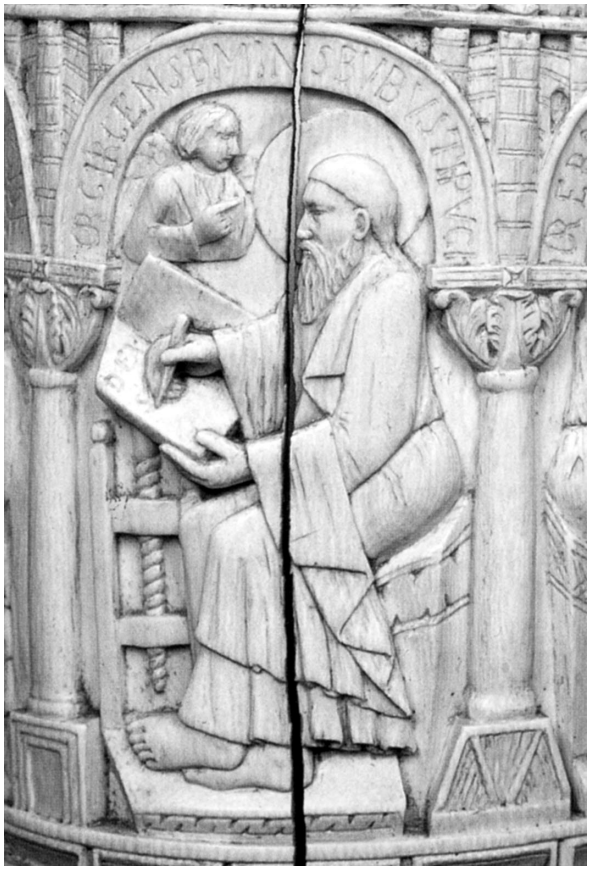
Svinčen bikoničen predmet s kvadratno predrtino (*t. 6: 3*) je verjetno ostanek *spojke* za spajanje gradbenih elementov. Železen predmet podobne oblike je bil dokumentiran na arheoloških izkopavanjih gradu Rihemberk (Vuga 1981, predmet 141, sl. 16: 14).

Namembnosti *trikotnega železnega členka* (*t. 7: 3*), narejegnega iz palice okroglega prereza, ni mogoče natančno določiti. Glede na to, da je členek razprt, sklepamo, da je popustil in je bil izgubljen.

Na Malem gradu teh treh predmetov ni mogoče stratigrafsko opredeliti.

Železen *stilus* (t.6: 8) je pisalo, ki se je od antike dalje uporabljal za pisanje po voščenih tablicah (*sl. 5.36*). Ko se je v visokem srednjem veku vse bolj uveljavljalo pisanje s peresi in črnilom na pergament, so stiluse uporabljali za označevanje vrstic in pisanje opomb, razlag in skic. Srednjeveški stilusi so najpogosteje bronasti, od začetka 12. stoletja dalje pa tudi svinčeni, srebrni, iz cina ali kosti ter lesa (Ladner 2000a; Ladner 2000b). Svinčen stilus z oblogo je predhodnik svinčnika.

Oblika enostavnejših železnih stilusov, konica spodaj in razširjen zaključek za izbris zapisa v vosku zgoraj,



Sl. 5.36: Slonokoščena situla nadškofa Gotfredusa, izsek; izvirnik iz okoli leta 980 (po Wieczorek, Hinz 2000, 480, 24.01.09).
Fig. 5.36: Ivory situla of the archbishop Gotfredus, fragment; original from approx. 980 (from Wieczorek, Hinz 2000, 480, 24.01.09).

5.9. OTHER FINDS

In this subchapter the objects the purpose of which can not be defined or at least defined precisely are described.

Iron chain from hooked links (*t. 6: 1*) might represent a part of the belt. This object has no known analogies. In Mali grad it stratigraphically belongs to phase 4b.

Interesting are the iron *star shaped shackles* (*t. 6: 4, 5*). These are fragments that either represent a part of the same object or they are fragments from a pair of similar objects. A six pointed star decoration is forged onto the sheet metal strip. They could be parts of a candleholder, similar to the one from the Swiss castle of Frohburg, that is dated around 1200 (Krauskopf 2005, 158, t. 8: 3).

The star shaped shackles from Mali grad could not be stratigraphically defined.

Amongst the finds there is also a piece of a strong corroded *chain* with three *links shaped as the number eight* and an attachment link (*t. 6: 2*). The links are relatively large, for they are 6.8 centimetres long, and they were forged from a rod that measured 0.8 centimetres in diameter. The links shaped as the number eight were relatively common in High and Late Medieval contexts. Examples were found in Veliki Gradac, Vojvodina, where they were dated into the 10th and 11th century (Janković 1981, t. 2: 45). Small links measuring 0.5 centimetres in length were found in a heap of old iron at the village blacksmith's in Sezimově Ústí-Nové Město, Czech Republic, that was abandoned prior to 1420 (Krajíc 1993, Obr. 11B: 8942, 17432). Individual articles shaped as the number eight were also found in the Swiss castle Clanks that was destroyed in the 13th century (Reding 2005, Taf. 11: 123–126), while in the Swiss castle of Madeln they are a compound part of foot and hand cuffs (Marti, Windler 1988, 109–110, Taf. 16: 181, 182). The links belonging to an early 15th century chain for raising a wooden bucket from a well in York were twice as big as the Mali grad ones (Ottaway, Rogers 2002, Fig. 1391: 8742). Only slightly smaller were the links found at the same site in the context of the 15th and 16th century (Ottaway, Rogers 2002, Fig. 1429: 12479–81, 12485).

On Mali grad this object could not be stratigraphically placed.

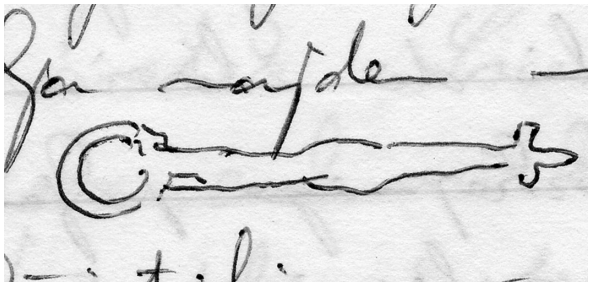
We have no good analogy for the *round strainer* (*t. 7: 4*) made from bronze sheet metal. The pierced sheet metal object from the High Medieval context at the German site Ulm-Eggingen has not been interpreted (Kind 1989, Taf. 120: 14, 18), nor have any similar objects from the Swiss castle of Zug (Grünenfelder et al. 2003, Taf. 27: 489). The iron strainer fragment from Scheidegg, dated into the 13th and 14th century, most likely had a rectangular shape (Ewald, Tauber 1975, 67, F 71).

The lead double pointed object with square piercing (*t. 6: 3*) is most likely a remnant of a *clamp* for joining stone building elements. An iron object with a similar shape

je ostala nespremenjena več stoletij. Tako malograjskemu primerku najdemo poznoantične primerjave na primer v Invillinu ali zgodnjesrednjeveške v staroslovanskih naselbinah Velike Moravske (Sagadin 2001, 370; glej tam navedeno literaturo). V Sloveniji najdemo primerjavo v zgodnjesrednjeveškem grobu na blejskem otoku (Knific 2004, sl. 20: 4, 5) ali na primer na poznoantični višinski naselbini Tonovcev grad (Tina Milavec, ustna informacija).

Stilus z Malega gradu stratigrafsko sodi v fazo 3.

O izgubljeni bronasti apliki (*sl. 5.37*) je ohranjena le skica v terenskem dnevniku (prim. *Priloga 4*, ZE 192). Po obliki sodeč bi šlo lahko za apliko na kotlu, toda ker ne poznamo merila, tega ne moremo potrditi.



Sl. 5.37: Skica bronastega predmeta v terenskem dnevniku.
Fig. 5.37: Sketch of a bronze artefact in a field diary.

has been documented in archaeological excavations at the Rihemberk castle (Vuga 1981, object 141, sl. 16: 14).

The use of the *triangular iron chain link* (*t. 7: 3*), made from a rod with a circular cross section can not be precisely defined. Taking into account that the link is open, we can conclude that it weakened and was lost.

These three objects from Mali grad can not be stratigraphically placed.

The iron *stylus* (t.6: 8) is a writing implement that was used for writing on wax tablets from Antiquity onwards (*fig. 5.36*). As writing with quills and ink on parchment became increasingly common in the High Middle Ages, styluses were used for marking lines and writing comments or explanations and sketching. Medieval styluses were most commonly made from bronze, from the beginning of the 12th century onwards they were also made from lead, silver, tin, bone or wood (Ladner 2000a; Ladner 2000b). A lead stylus with lining is the forerunner of the pencil.

The shape of the simple iron styluses, the pointed end and the wider top for erasing remained unchanged for centuries. Thus it was easy to find Late Antiquity analogies for the Mali grad example, for instance in Invillino or in the early Medieval Slav settlements in Greater Moravia (Sagadin 2001, 370; see cited literature). In Slovenia we can find an analogy in the Early Medieval grave on the Bled island (Knific 2004, sl. 20: 4, 5) or in the Late Antiquity fortified hilltop settlement Tonovcev grad (information provided by Tina Milavec).

The stylus from Mali grad stratigraphically belongs into phase 3.

As regards the bronze attachments (*fig. 5.37*) only a sketch in the field logbook has been preserved (cf. *Appendix 4*, CU 192). Taking its shape into account it could be an attachment on a cauldron, but because the scale of the sketch is unknown this can not be confirmed.

6. LONČENINA

6.1. TEHNOLOGIJA IZDELAVE

6.1.1. METODOLOGIJA

Pred poldrugim desetletjem je Hans Losert tudi praktično pokazal, da je visokosrednjeveško lončenino smotrno razvrščati glede na tehnološke serije in skupine serij (nem. *Warenarten*; Losert 1993 26–39; za zgodovino raziskav prim. Keller 1999, opomba 267 in tam navedena literatura; Wintergerst 1999, 27 in tam navedena literatura). Večinoma gre za makroskopsko opredeljevanje primesi, žgalne atmosfere, barve, trdote in sledi oblikovanja. Pri slednjih opazujemo razvoj, pogojen s spreminjanjem tehnologije, postopnim uvajanjem dela z vse hitrejšim lončarskim kolesom. Od tega so v večji meri odvisne tako oblike ustij kot delno tudi uporabljena lončarska glina.

Pri obdelavi gradiva s kamniškega Malega gradu uporabljamo digitalni dokumentarni arhiv lončenine. Ta temelji na strukturi podatkovne zbirke avtorja A. Pleterskega, ki je kot javno dobro dostopna na spletni strani ZRC SAZU, Inštituta za arheologijo (Pleterski 2002b). Deluje v programu MS Access in je zasnovana uporabniku prijazno. Namenjena je dokumentiranju predvsem zgodnjesrednjeveških artefaktov, toda zaradi modularne zgradbe je podatkovna zbirka prilagodljiva. Za naše potrebe jo dograjujemo z dodatnimi tipi ustij in s tabelo zbiralnih enot. Vnos podatkov sloni na subjektivnem opisovanju kategorij in temelji na izkušnjah avtorja zbirke s statističnim obdelovanjem arheoloških artefaktov (prim. Losert 1993, 25–38; Losert, Pleterski 2003).

6.1.2. ANALIZA

V procesu vrednotenja malograjske lončenine je bilo vloženo veliko truda v iskanje podatkov, skritih v načinu izdelave lončenine. Natančno analizo smo opravili (Štular 2005a, 441–443) na vzorcu 1.557 odlomkov, ki izvirajo z dvorišča grajskega jedra. Pri tem smo zajeli 17.286 lastnosti in opravili 4.671 meritev. Videz in zgradba žgane lončenine sta odvisna od surovin, temperature in atmos-

6. POTTERY

6.1. MANUFACTURING TECHNOLOGY

6.1.1. METHODOLOGY

Fifteen years ago Hans Losert showed that it is necessary to classify High Medieval pottery according to its technology series (i.e. series of fabric-types) and groups of series (German *Warenarten*; Losert 1993 26–39; for the history of research cf. Keller 1999, footnote 267 and cited literature; Wintergerst 1999, 27 and cited literature). This is mainly performed through macroscopic definition of the additions, the firing atmosphere, colour, hardness and traces of manufacturing technique. At the latter one can observe the development conditioned by the changes in technology, i.e. the gradual introduction of work with an increasingly fast spinning potter's wheel. The rim shapes depend mainly on the used technology and to a certain extent on the used clay.

When dealing with the finds from Mali grad we have used the digital pottery archive. This is based on Pleterski's public domain database (Pleterski 2002b). It works within the MS Access environment and is user friendly. It is primarily intended for documenting Early Medieval artefacts, however with its modular structure the database can be adjusted. For our needs additional rim types and a collective unit table have been added. Data input is based on the subjective description of the categories. These are based on the experience of the author with statistical treatment of archaeological artefacts (cf. Losert 1993, 25–38; Losert, Pleterski 2003).

6.1.2. ANALYSIS

In the process of evaluating the Mali grad pottery a lot of effort was placed into searching for data hidden within the pottery manufacturing process. The detailed analysis dealt with a sample of 1.557 fragments found in the castle inner bailey (Štular 2005a, 441–443). During the analysis 4.671 measurements and 17.286 characteristics were recorded. The appearance and composition

fere žganja, od uporabe ter podepozicijskih procesov. Vse v naravi pridobljene in za pripravo surovine uporabljene snovi imenujemo lončarska glina. Od lončarske gline so odvisne lastnosti končnega izdelka. S tem je namembnost vnaprej določena. Z opisovanjem značilnosti odlomkov in posod, t. i. tehnologije lončenine, skušamo odgovoriti na troje vprašanj: o proizvodnih procesih, fizičnih lastnostih in izvoru surovin ter izdelkov. V nadaljevanju bomo na kratko predstavili le nekatere izmed rezultatov.

Tehnologijo *žganja* prepoznavamo na podlagi tipov preloma. Uporabljena metoda zajemanja podatkov omogoča ločevanje šestih tipov prelomov (tipi 1, 2, 3, 4, 5 in 8 po Horvat Mi. 1999, 53–54; prim. Bauer in dr. 1993, 104–106; Losert 1993, 73–74; Orton. 1993, 132–134). Na malograjskem gradivu v obdobju 4 faze lahko opazujemo trend naraščanja priljubljenosti črne lončenine na račun stihijsko žganih posod. Tudi sicer med visokosrednjeveško kuhinjsko lončenino v srednji in severni Evropi prevladuje črna. To verjetno lahko povezujemo s tehnološkim postopkom, ki z močnim dimljenjem med samim žganjem zmanjšuje poroznost oziroma povečuje vododržnost lončenine (Weiser 2003, 16).

Razmeroma enakomeren delež srebrne sljude, ki se kot sestavina gline pojavlja v skoraj vseh odlomkih (v 99 odstotkih), najverjetneje kaže na uporabo istega vira gline v daljšem časovnem obdobju. Iz pisnih virov izvemo, da so v poznem srednjem veku lončarji iz Kamnika in okolice pridobivali glino v Tunjiški dolini in okolici (Otorepec 1957, 52 in opomba 77). Zdi se torej, da je večina malograjske srednjeveške lončenine izdelek lokalnih lončarjev, kar pa bi lahko potrdili le z mikroskopskimi analizami.

Pustila (vključki, negnetljive surovine) so pomembna kategorija pri razvrščanju lončenine. Med srednjeveškimi odlomki jih ima srednjo ali veliko vsebnost primesi le petina. Najpogostejše pustilo je apnenec (58 odstotkov) ali kremen (38 odstotkov).

Pogosto je kremenčev pesek prisoten le na površini odlomkov. Gre za tehniko izdelave, pri kateri je bil polizdelek pred pečenjem povaljan v pesku. Priljubljenost te tehnike je v fazi 4 postopoma upadala (21, 17 in 13 odstotkov v stopnjah 4a, 4b in 4c).

Sledovi obdelave so dokumentirani na 45 odstotkih odlomkov. Gre za znamenja na zunanji ali notranji površini, ki pričajo o tehniki obdelave posod. Najpomembnejše za preučevanje visokosrednjeveške lončenine je ločevanje med izdelki glede na tehniko izdelave, natančneje glede na način uporabe lončarskega kolesa. Vendar Mali grad kot najdišče zaradi slabe stratigrafije v nadaljnji analizi ne omogoča statistično preverljivih rezultatov.

V vzorcu je bilo dokumentiranih 195 odlomkov, na katerih so ohranjeni t. i. prismojeni ostanki. Brez kemične analize ostankov ni moč podati natančne sodbe, a sodeč po etnoloških analogijah (Baš 1938) bi lahko šlo za ostanke smolnega premaza. Ta je služil boljši vododržnosti posod. V obeh primerih, bodisi da gre za prismojene ostanke hrane bodisi za smolni premaz, gre

of the burnt pottery depend on the raw materials, temperature and atmosphere of firing, its use and the post-depositional processes. The characteristics of the final product also depend on the used raw materials. With the use of certain raw materials the range of the possible uses of the final product is determined. By recording the characteristics of the fragments and fabric, i.e. pottery technology, the following three questions are asked: what sort of production process was employed, what are the physical characteristics of the final product and where do the raw materials originate from. In the continuation we will represent only some of the results.

The *firing* technology can be recognised on the basis of the types of fabric. The data recording method enables the classification into six types of fabric (types 1, 2, 3, 4, 5 and 8 according to Horvat Mi. 1999, 53–54; cf. Bauer et al. 1993, 104–106; Losert 1993, 73–74; Orton. 1993, 132–134). On the Mali grad phase 4 samples one can notice a rise in the popularity of black pottery at the expense of vessels fired in mixed or uncontrolled atmosphere. In Central and Northern Europe black is the dominating colour in High Medieval kitchenware. This is probably linked to the technology process in which smoke is used (i.e. reduction firing atmosphere) during the burning process in order to reduce porosity (and increase the water tightness) of the final product (Weiser 2003, 16).

A relatively equal share of silver mica in almost all fragments (in 99 percent) points towards the fact that it is a clay component. Hence, it seems that the same source of clay was used over a longer period of time. Written records report that in the Late Middle Ages pottery makers from Kamnik and its surroundings used to obtain clay in the Tunjica valley and the vicinity (Otorepec 1957, 52 and note 77). It therefore seems that most of the Mali grad Medieval pottery is a product of local pottery makers. However, this can only be confirmed through microscopic analysis.

Additions (inclusions, non-plastic raw materials) are important elements for the pottery classification. Amongst the Medieval fragments from Mali grad only one fifth have medium or high contents of additions. The most common additions are limestone (58 percent) and silica (38 percent).

Silica sand is often found only on the surface. This is due to the manufacturing technique at which the semi-product was rolled in sand prior to being placed into the furnace. This technique was on the decline in phase 4 (21, 17 and 13 percent in phases 4a, 4b and 4c).

45 percent of all fragments showed *traces of the production process*. These are marks on the outer or inner surface that show the technique used to manufacture the vessels. For the study of High Medieval pottery it is extremely important to differentiate between the products as regards the way the potter's wheel was used. However, due to the poor stratigraphy Mali grad does not offer statistically verifiable results for further analysis.

za atribute kuhinjske lončenine. Takšnih odlomkov je v vseh fazah približno 10 odstotkov.

Analiza je torej pokazala, da je bila vsa visokosrednjeveška lončenina izdelana iz enake lončarske mase: večinoma neenakomerno žgana, s primesmi srednje velikih delcev kremena in/ali apnenca ter dodelana na počasnem vretenu. Najverjetneje gre za lončarsko glino, izdelano iz lokalnih surovin, brez uporabe posebnih postopkov predelave, saj niti lončarji niti uporabniki v visokem srednjem veku temu delu postopka niso posvečali posebne pozornosti. Glavno vodilo je bilo izdelati uporabno posodo (Štular 2007a).

6.2. LONCI

6.2.1. TIPOLOGIJA USTIJ

Zaradi velikega števila odlomkov ustij bomo ta predstavili s klasifikacijo oblikovnih tipov z metodo ovojnice. Različnih klasifikacij je malone toliko, kot je poskusov. V nadaljevanju uporabljeno metodo ovojnic je ponovno izumil Orton (1987), prvi pa v arheologiji uporabil že Sophus Müller leta 1898 (Klejn 1988, 60 in sl. 11). Pri tej metodi prekrivamo risbe profilov poenotene velikosti in določimo mejo, ki še sodi k nekemu tipu. Metoda ni primerna za določanje tipov, saj posploševanje teži k zakritju strukture tipa. Če so si proporci podobni in se razlikujejo le v dimenzijah, je metoda uspešna. Kadar je notranja trdnost tipa izražena v obliki negativnih korelacij, na primer kanelure poznosrednjeveških narebrenih ustij, bo posploševanje dalo neresnično obliko (Klejn 1988, 60–64). Gre torej za metodo, ki je uporabna predvsem za opisovanje vnaprej določenih oblikovnih tipov.

Metodo smo uporabili za združevanje osnovnih oblik, uporabljenih pri zajemanju podatkov (prim. Štular 2005c, 22–29). Ti so združeni v kategorije, povzete po Losertu. Hans Losert (1993) je vzpostavil členitev srednjeveške lončenine glede na obliko in okras. Natančneje, gre za členitev ustij, oblik dna in okrasa (Losert 1993, 39–54). Oblika ustij in dna je zagotovo odvisna predvsem od tehnike izdelave in ima prehodne oblike. Najpogostejše oblike ustij je moč na grobo razvrstiti v deset skupin. Tako je avtor prikazal 10 skupin oziroma 51 najpogostejših oblik ustij posod (*sl. 6.1*).

Losertovo klasificiranje temelji predvsem na elementih, odvisnih od tehnike izdelovanja. Takšen je, razumljivo, tudi rezultat. Kaže premočrten razvoj, pogojen s spreminjanjem tehnologije, postopnim uvajanjem dela z vse hitrejšim lončarskim kolesom. Od tega so v večji meri odvisne tako oblike ustij kot serije (*sl. 6.2*). Z uporabljeno metodo je izdelan zanesljiv pregled uvajanja tehnologije. Neodvisno datiranje omogoča datiranje tehnologije in s tem posameznih predmetov.

Malograjsko gradivo smo torej razvrstili z uporabo metode ovojnice in Losertovo klasifikacijo kot izhodi-

Within the sample 195 fragments were charred. Without a chemical analysis it is impossible to offer an exact interpretation, however, taking into account the ethnological analogies (Baš 1938) these could be the remains of a starch coating used to improve the water resistance of the vessels. Regardless of whether they are burnt food remains or a starch coating they are certainly attributes of kitchenware pottery. Approximately 10 percent of the fragments (in all phases) are charred, which offers direct evidence that they were used as kitchenware.

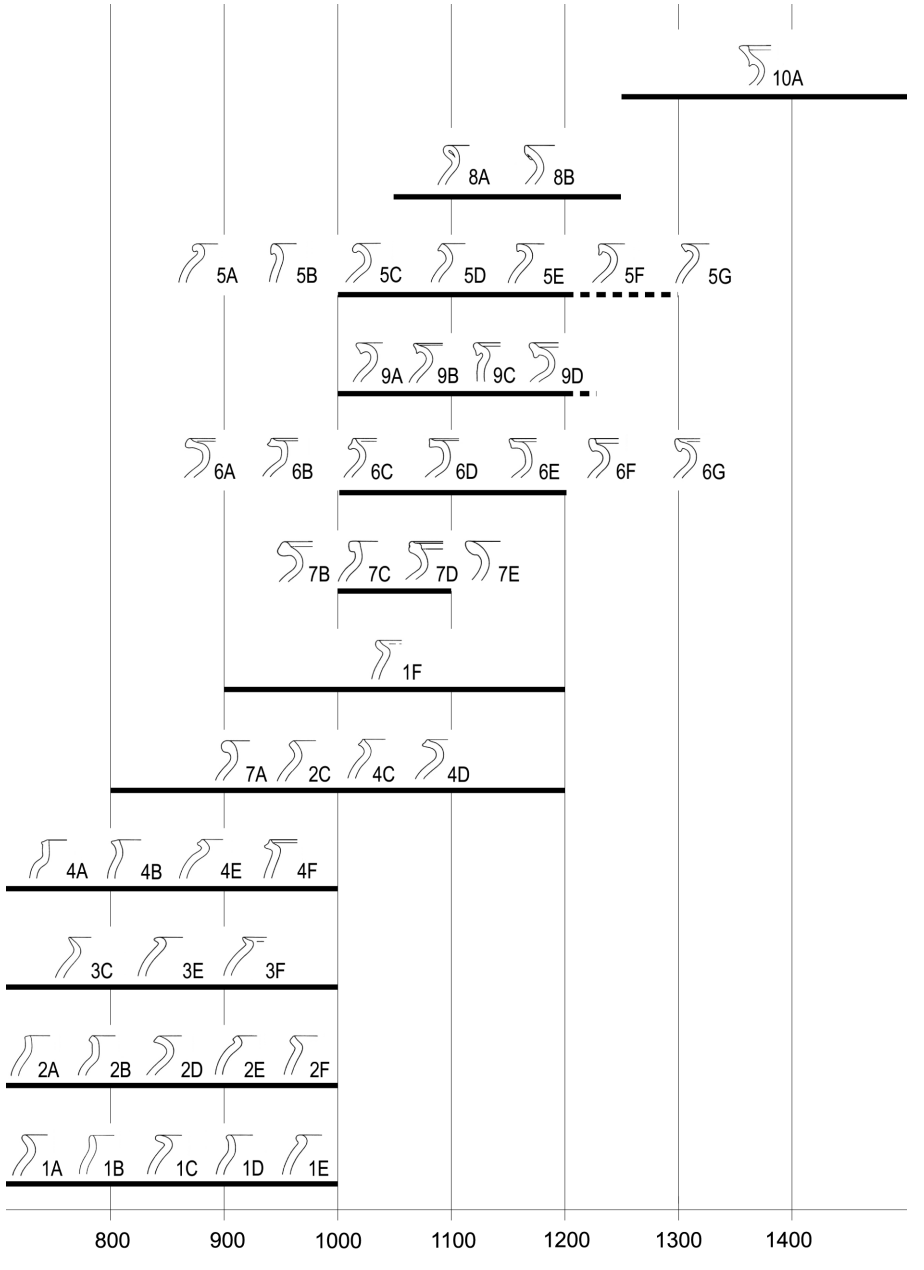
The analysis has showed that all High Medieval pottery was made from the same fabric and with a similar process: in most cases it was unevenly burnt, it had additions of medium sized silica and/or limestone particles and was after treated on a slow spinning potter's wheel. The potter's clay (i.e. the mixture of clay and other raw materials) was made from the local raw materials, without the use of special manufacturing procedures, for neither potters nor the users in the High Medieval period paid special attention to this part of the procedure. Their main focus was on producing a functional, useful vessel (Štular 2007a).

6.2. POTS

6.2.1. RIM TYPOLOGY

Due to the large number of rim fragments the envelope method was used to present and classify the rims. There are almost as many types of classification as there are attempts to classify the pottery. The envelope method used in the continuation was re-invented by Orton (1987), while the first to use it in archaeology was Sophus Müller in 1898 (Klejn 1988, 60 and sl. 11). With this method the drawings of the profiles (in the same scale) are overlapped and hence the boarder that belongs to a certain type is defined. This method is unsuitable for defining types, for its generalisation tends to cover the type structure. This method is successful when the proportions are similar and the sketches differ only in their dimensions. When the inner consistency of the type is expressed in the form of negative correlations (for instance the channels in the Late Medieval ribbed rims) any generalisation will give an unrealistic form (Klejn 1988, 60-64). This method is most successfully applied when describing previously defined types.

In this case the method of overlapping the basic forms used at data recording (cf. Štular 2005c, 22-29) was employed. These were joined into categories according to Losert (1993). Hans Losert (1993) introduced the division of Medieval pottery according to their shape and decoration, or to be more precise according to the shape of the rim, bottom and the decorations (Losert 1993, 39–54). The shapes of the rims and bottoms depend on the manufacturing technique and have transitional forms.



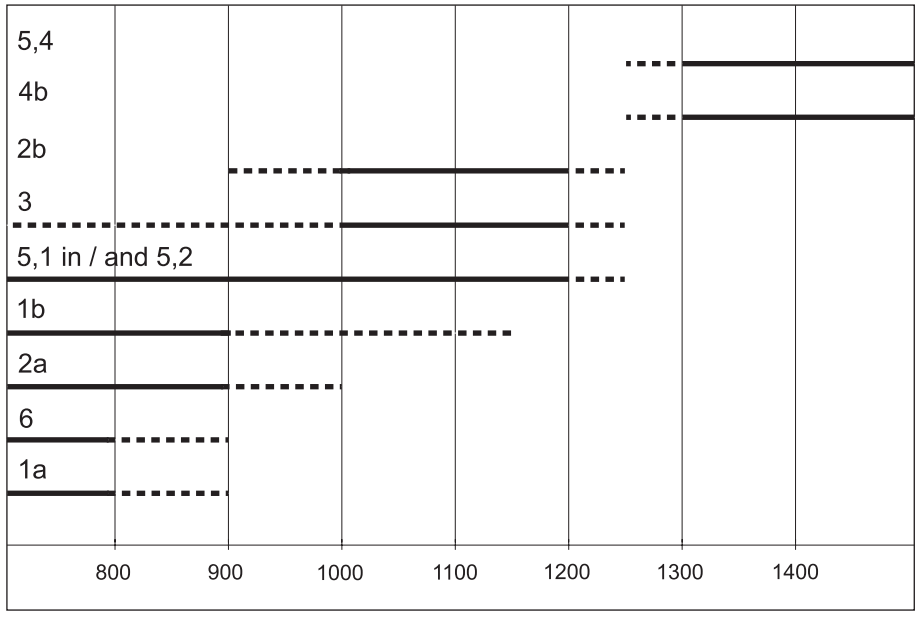
Sl. 6.1: Grafična predstavitev datiranja oblikovnih tipov (shematično prikazana ustja) na Zgornjefrankovskem (vir: Losert 1993).
Fig. 6.1: Presentation of the various types (schematically presented rims) through time in the Upper Franconia (*Oberfranken*) (source: Losert 1993).

ščem. Nekatere tipe smo dodali, čeprav je poznosrednjeveško gradivo, ki ga Losert ne obravnava, tudi na Malem gradu maloštevilno. Opis posameznih tipov (*Priloga* 1) in primerjave (*Priloga* 2) so podani tabelarično, grafično pa so ti predstavljeni na sliki (*sl. 6.3*).

Skladno s pričakovanji se ovojnica na vzorcu 842 malograjskih odlomkov ustij ni oblikovala pri vseh tipih. Prepoznati jo je bilo moč pri slikah tipov 1H, 2G, 2H, 5C, 5G, 5H, 6E, 6F, 6G, 8C, 9B, 10A, 10B, 10C in 11D. Sledi kategorija delno oblikovanih ovojnic. Pri teh slika ne kaže polno razvite ovojnice, vendar

The most common rim shapes can be categorised into ten groups. The author presented 10 groups in which he placed the 51 most common rim shapes (*fig. 6.1*).

Losert's classification is predominantly based on elements that depend on manufacturing techniques. Understandably the result fits the approach. It shows a linear development, conditioned with the development of technology, i.e. the gradual introduction of work with an increasingly fast spinning wheel. The rim shapes and series (*fig. 6.2*) depend predominantly on this. With the used method a reliable overview of the introduction of



Sl. 6.2: Grafična predstavitev datiranja tehnoloških serij na Zgornjefrankovskem (vir: Losert 1993). Tehnološke serije: 1a – lončenina z grobimi pustili (slovanska lončenina), izdelana iz svitkov; 1b – lončenina z grobimi pustili (slovanska lončenina), delno dodelana na lončarskem vretenu; 2a – raskava groba lončenina; 2b – raskava negroba lončenina; 3 – fina lončenina, delno ali v celoti dodelana na lončarskem vretenu; 4b – raskava lončenina, izdelana na lončarskem vretenu, fina varianta; 5 – lončenina s srebrno sljudo z različnimi podzvrstmi; 6 – lončenina z organskimi primesmi.
Fig. 6.2: Graphic presentation of the dating of technological series in Upper Franconia (*Oberfranken*) (source: Losert 1993). Technological series: 1a – hand made coarseware (Slavicware); 1b – hand made coarseware (Slavicware) partially wheel-after-treated; 2a – coarseware with rough surface; 2b – normal (non-coarse) ware with rough surface; 3 – fineware either partially or fully wheel-after-treated; 4b – wheel-thrown fineware with rough surface; 5 – micaware (different types); 6 – organic-addition-ware.

omogoča določena sklepanja o tipu. Na primer za tip 1F so različice določene na podlagi izvihanosti ustja. Podobni so še tipi 2C, 5E in 10D. Pri ostalih – 2F, 11A in 11B – metoda ni bila uspešna. Pokazal se je napovedani primer zakritja strukture tipa. Pri tipu 11A se je oblikovala ovojnica, ki zakrije osnovno značilnost tipa, trojno narebrenost zunanjega roba ustja. Pri prekrivanju slik dveh ustij, izmed katerih je eno široko in eno ozko, se je izgubila profilacija. Pri nekaterih tipih – 1G, 3D, 5B, 11C – se ovojnica ni oblikovala zaradi premajhnega števila odlomkov.

Slika tipa 8C je nehomogena, saj kriterij določitve tipa ni združljiv z metodo. Jasno določen tip temelji na zapognjenem ustju. Z metodo ovojnice pa ta značilnost ne pride do izraza.

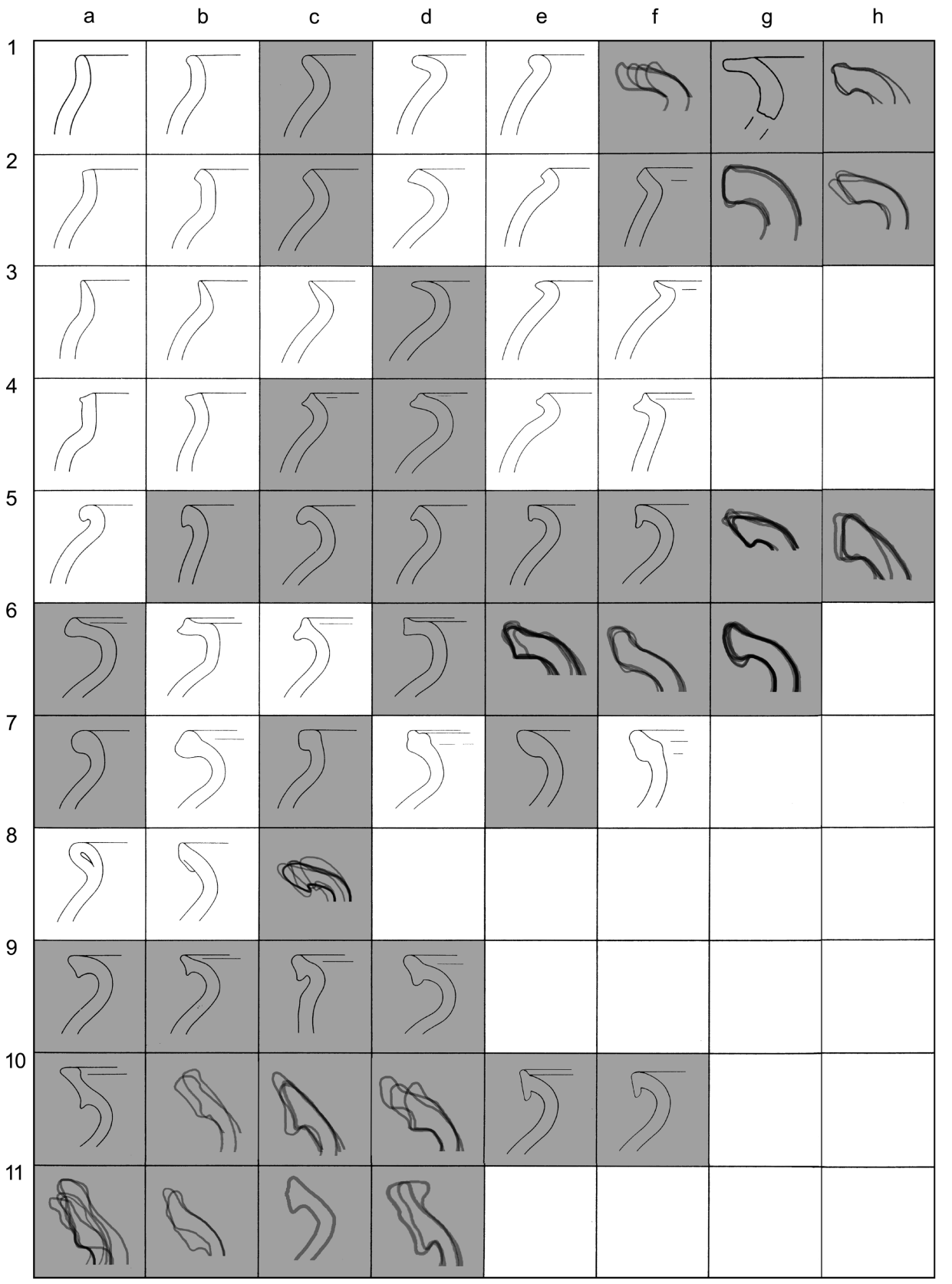
Zgoraj prikazana klasifikacija, katere členitev temelji na uporabljeni tehniki izdelave lončenine, služi raziskovalcu za urejanje gradiva. Koristna je kot mnemotehnični in datacijski pripomoček.

Toda prikaz 'neuspešnih' tipov s takšno metodo je slab ali celo zavajajoč. Poleg tega smo v nadaljevanju raziskave seznam tipov nekoliko razširili, predvsem s tipi, ki jih Losert že predstavlja. Zato smo za končno obliko preglednice združili osnovno preglednico (Losert 1993, Abb. 6) in 'uspešne' tipe, prikazane z metodo ovojnice. Zaradi večje preglednosti prikazujemo tudi tiste Loser-

technology has been made. Independent dating enables the dating of technology and with this of individual objects.

Mali grad materials were therefore classified with the use of the envelope method and Losert's classification as a starting point. Some types were added, even though Late Medieval material that Losert does not deal with is also rare at Mali grad. The description of various types (*Appendix* 1) and analogies (*Appendix* 2) are given in a table or graph form, or they are presented in the drawing (*fig. 6.3*).

In accordance to expectations the envelope failed to form at all types within the sample of 842 rim fragments from Mali grad. The envelope formed for the following types: 1H, 2G, 2H, 5C, 5G, 5H, 6E, 6F, 6G, 8C, 9B, 10A, 10B, 10C and 11D. These are followed by the category of partially formed envelopes: the drawing does not show a fully developed envelope, however it enables certain inferences. For example: for type 1F the variants are defined on the basis of the rim inclination. Types 2C, 5E and 10D are similar. With the remaining types – 2F, 11A and 11B – the envelope method did not bare results. The predicted example of covering the type structure occurred. At type 11A the formed envelope blurred the basic characteristic of the type, the triple ribbed outer edge of the rim. When overlapping the pictures of the



Sl. 6.3: Združena shema tipov ustij malograjskih loncev. Členitev osi x in y je povzeta po Losertu (1993, Abb. 6). Dodana sta vrstica 11 in stolpec H. V malograjskem gradivu zastopani odlomki imajo temnejšo podlago.
Fig. 6.3: Mali grad, rim types. The x and y axes after Losert (1993, Abb. 6). Row 11 and column H have been added. Types found at Mali grad are on a darker background.

tove tipe, ki v malograjskem gradivu niso zastopani. Ti so grafično ločeni (*sl. 6.3*).

6.2.2. OBLIKE LONCEV

Oblika lonca je zelo pomembna za njegovo uporabo (Štular 2007a). Vendar slaba ohranjenost malograjskega gradiva ne omogoča pregleda oblik trupa. Zato se lahko zatečemo le k primerjalnemu gradivu oziroma povzamemo izsledke nekaterih študij.

Christine Keller (1999) je izdelala zelo natančno študijo lončenine Basla in pokazala razvoj oblike trupa srednjeveških loncev z ravnim dnom. Kot je razvidno s slike (*sl. 6.4*), v visokem in poznem srednjem veku lahko sledimo prehodu od trebušastih loncev k slokim.

Zelo sloke oblike loncev so vsaj deloma nastale tudi zaradi samega postopka žganja posode, ki se je uporabljal v poznem srednjem veku (Weiser 2003, 17), toda pomembnejši dejavnik pri tem trendu je bila spremenjena uporaba loncev v kuhinji. Tako je bil na primer tipičen trebušast lonec prilagojen kuhanju na žerjavici, sloki lonci pa so najpogosteje stali tik ob plamenu (Štular 2007a, 377–383).

Podoben razvoj oblike trupa srednjeveških loncev z ravnim dnom kot v Švici lahko opazujemo tudi na slovenskem gradivu. Manjšanje premera dna je pri slovenskem gradivu manj izrazito, podobno kot tudi v osrednji Nemčiji (Gross 1991, Abb. 32, 33; Wintergerst 2002, Abb. 11–13). Predvsem pa baselska študija ni neposredno primerljiva z našim prostorom v kronološkem smislu, saj se tam prej in bolj izrazito uveljavijo sloke forme, presegajoča ustja, lonci z ročaji, glaziranje kuhinjske lončenine ... (prim. npr. Predovnik 2003, sl. 40: 4; 42: 58; 45: 139; ... 54: 291; 55: 295; za 10. in 11. stoletje prim. Sekelj Ivančan et al. 2005, 143–144).

Pri malograjskem gradivu bi lahko oblike loncev opazovali le posredno, saj se nekateri tipi ustij pojavljajo le pri določenih oblikah. Vendar bi bili rezultati takšne analize le navidezni, v resnici bi bili to enaki rezultati,

rim, one with broad and one with narrow channels, the shape of the channels was lost.

At some types – 1G, 3D, 5B, 11C – the envelope did not form due to the small number of fragments.

The envelope for type 8C is not homogeneous because the criterion used to define the type is incompatible with the method. The definition of the type is based on the folded rim and with the envelope method this characteristic is not exposed, but covered.

The above described classification based on the pottery manufacturing technique serves to classify the rim types. It is also useful as a memo technique and for dating purposes.

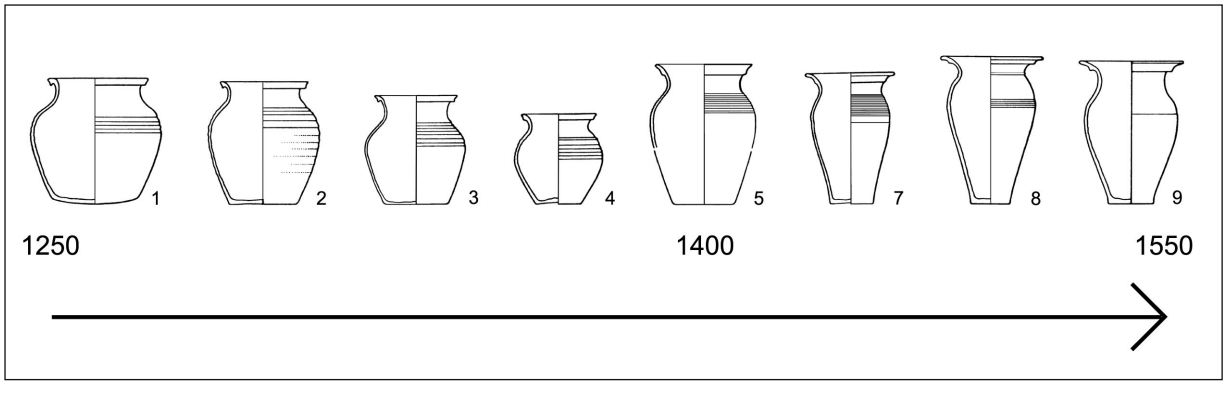
However, using this method to present the types with an 'unsuccessful' envelope can even be misleading. Apart from this we have also expanded Losert's list of types. In order to present the final result properly the basic chart (Losert 1993, Abb. 6) was merged with the 'successful' types, represented by the envelope method. For clarity reasons Losert's types that are not represented in the Mali grad materials are shown in light grey (*fig. 6.3*).

6.2.2. VESSEL SHAPES

The pot shape tells us a great deal as regards its use (Štular 2007a). However, the poorly preserved fragments from Mali grad do not allow for an overview of the vessel shapes. Thus we can only use comparative materials and the findings from certain studies.

Christine Keller (1999) produced a detailed study of pottery from Basel and has shown the development of the vessel shape of Medieval flat-bottom-pots. In *fig. 6.4* the development from a rounder to a more slender type in the High and Late Medieval period can be observed.

The slender pottery shape was at least partially a result of the firing process that was used in the Late Middle Ages (Weiser 2003, 17), but a more important



Sl. 6.4: Shema razvoja oblik visoko- in poznosrednjeveških loncev na primeru švicarskega gradiva. Številke ustrezajo tipom Kellerjeve. Risbe niso v merilu, razmerja so ohranjena (prirejeno po Keller 1999, 59–63).
Fig. 6.4: Development of the shapes in High and Late Medieval pots - on the Swiss example. The numbers correspond to the types defined by Keller. The drawings are not drawn to scale, however the ratios are preserved (adapted from Keller 1999, 59–63).

kot so rezultati analize tipov ustij. Vse štiri lonce, katerih ohranjenost dopušča sklepanje o obliki (*t. 8: 2; 9: 1; 11: 2, 3*), lahko uvrstimo med trebušaste, v 2. ali 4. skupino po Kellerjevi.

6.3. SKLEDE IN PEKAČI

Na Malem gradu je bilo dokumentiranih 107 odlomkov skled (*t. 23*) in trije odlomki pekačev (*t. 22: 5-7*).

Sklede so tip nizkih odprtih posod, ki so lahko oblikovno zelo raznolike (Keller 1999, 83–88). Vendar vse malograjske sklede pripadajo koničnim skledam brez ročaja, s premerom ustja od 10 do 30 centimetrov in verjetno višino do 8 centimetrov. Med malograjskim gradivom nimamo ohranjenega nobenega primerka dna, ki bi ga lahko zanesljivo pripisali skledi. Toda primerjave kažejo, da je dno skoraj vedno rahlo vbočeno ali ravno. Malograjske sklede so bile bodisi dodelane na počasnem (*t. 23: 2, 9*) bodisi izdelane na hitrem lončarskem kolesu (*t. 23: 1, 3, 5, 7, 8*).

Sklede so najpogosteje služile kot servirno posodje (Keller 1999, 169–170). V arheoloških kontekstih so najpogostejše lončene sklede. Toda izkopavanja na najdiščih z ohranjenim organskim gradivom dokazujejo, da so bile v 14. in 15. stoletju prav tako pogoste tudi lesene sklede. Izdelane so bile na stružnicah (Hather 2007), najpogosteje iz javorovine in jelševine (npr. Holl 1966, Abb. 52–55, 59–65).

Lončene sklede so bile v srednjem veku pred 13. stoletjem zelo redke. Zelo pogoste in zelo raznolike pa so bile v poznem srednjem veku in v zgodnjem novem veku. Na mizah višjih slojev so sklede od konca srednjega veka dalje vse pogosteje nadomeščali krožniki (Keller 1999, 83–88 in 169–171). V kmečkih gospodinjstvih pa so bile sklede priljubljene še na začetku 20. stoletja, kar kažejo med drugim tudi takratni izdelki tradicionalnega lončarstva (Karlovšek 1951; Novak 1951; Šifrer 1988).

Sklede lahko oblikovno razlikujemo glede na obliko ustja, kar pa nam ne pomaga pri natančnejšem umeščanju v čas. Pri slednjem si lahko pomagamo z obliko telesa. Sklede z lomljenim profilom telesa (*t. 23: 1*) so izdelane na hitrem lončarskem kolesu, sklede s koničnim telesom pa v obeh tehnikah. Malograjski konični skledi (*t. 23: 9*) tako najdemo primerjavo že med zgodnjesrednjeveškim gradivom s Pristave (Pleterski 2008a, t. 14: 3).

Na prvi pogled nenavaden je odlomek lončene "sklede z ročajem" za obešanje (*t. 23: 10*). V tem primeru gre za skledo zgolj v smislu oblike posode, namembnostno pa gre za lončen kotel. Primerjave za takšne posode najdemo že v zgodnjesrednjeveškem gradivu, na primer na Pristavi na Bledu (Pleterski 2008a, t. 19: 4) ali v Ratečah (Pleterski 2008b, 53–55, 76, sl. 4.92).

Glede na tehnološki postopek izdelave lahko malograjske sklede razdelimo v dve skupini. Prevladujoč

factor was the changed use of pots in the kitchen. For instance, the typical rounder pots were adjusted to cooking on live coal, while the slender pots were most commonly placed next to the fire (Štular 2007a, 377–383).

A development in the vessel shape of Medieval flat-bottom-pots similar to the one in Switzerland can also be observed in Slovenia. However, similar to central Germany (Gross 1991, Abb. 32, 33; Wintergerst 2002, Abb. 11–13) the reduction of the bottom diameter is less explicit in the Slovene examples. The Basel study is not directly comparable in the chronological sense, for in Basel slender forms, overhanging rims, pots with handles and glazed kitchenware have established themselves earlier and with greater force (cf. Predovnik 2003, sl. 40: 4; 42: 58; 45: 139; ... 54: 291; 55: 295; for 10th and 11th century cf. Sekelj Ivančan et al. 2005, 143–144).

Due to their poor preservation the pottery shapes at Mali grad could only be indirectly classified, for certain rims appear only in combination with certain shapes. However, such analysis would have brought no new data. All four pots from Mali grad - the preservation of which permits the reconstruction of the vessel shape (*t. 8: 2; 9: 1; 11: 2, 3*) - can be classified as round 'belly' pots, belonging into the 2nd or 4th group according to Keller.

6.3. BOWLS AND CERAMIC FLAT VESSEL FOR BAKING

107 fragments of bowls (*t. 23*) and three fragments of a ceramic flat vessel for baking (*t. 22: 5-7*) were found at Mali grad.

Bowls are low vessels with an open form that can be found in numerous different shapes (Keller 1999, 83–88). However, all Mali grad bowls were cone-shaped, without a handle, with a rim diameter between 10 and 30 centimetres and most likely of up to 8 centimetres high. Not a single example of a preserved bottom from Mali grad could be reliably ascribed to a bowl. However, comparisons show that the bottom is almost always slightly concave or flat. The bowls from Mali grad were either hand made (*t. 23: 2, 9*) or wheel-thrown (*t. 23: 1, 3, 5, 7, 8*).

Most bowls were used as a serving dish (Keller 1999, 169–170). In archaeological contexts ceramic bowls are most common. Excavations at sites with preserved organic materials show that in the 14th and 15th century wooden bowls were also common. They were manufactured on lathes (Hather 2007), most commonly from maple and alder wood (e.g. Holl 1966, Abb. 52–55, 59–65).

Ceramic bowls were very rare prior to the 13th century. However, they became very common and diverse in the late Medieval and Early Post-Medieval period. Higher social classes started using plates instead of bowls

jejo sklede, izdelane na počasnem lončarskem kolesu. Uporabljena lončarska glina se ne razlikuje od tiste, uporabljene za izdelavo loncev z istim postopkom. Vendar ustja malograjskih skled niso enaka ustjem sočasnih loncev, kot na primer v Baslu (Keller 1999, primerjaj Abb. 77 in Abb. 44). Kljub temu sklepamo, da so tudi malograjske posode sočasne loncem, ki so bili izdelani z istim postopkom. Upoštevaje podatek, da se v 11. in 12. stoletju sklede skorajda ne pojavljajo, lahko malograjske sklede, izdelane na počasnem lončarskem kolesu, okvirno datiramo v 13. stoletje.

Neglazirane malograjske sklede, izdelane na hitrem lončarskem kolesu, lahko datiramo v 14. in 15. stoletje. Ko se je proti koncu 15. stoletja razširila uporaba svinčene glazure, je bila vsaj notranjost skled skoraj vedno glazirana. Glazirani skledi, izdelani na hitrem lončarskem kolesu, torej lahko umestimo najprej v konec 15. stoletja, verjetno pa sta mlajši. Podobno velja za skledo z ohranjeno poslikavo. Najverjetneje gre za podglazurno slikanje in neohranjeno glazuro.

Za pekače so značilne do centimeter debele stene, ki so nagnjene rahlo navzven in imajo oster prehod v različno debelo dno. Pekači so iz lončarske gline z veliko primesmi kremena in apnenca izdelani ročno in doglajeni. Oblikovno se pekači skorajda ne razlikujejo med seboj, se pa po velikosti. Takšni pekači (Keller 1999, 89–90; Wintergerst 1999, Typentafel 17: 16), datirani v 15. stoletje, imajo običajno premer 20 do 25 centimetrov, malograjska primerka pa 20 in 35 centimetrov.

Etnološke primerjave (Čausidis, Nikolov 2006, 97–100 in t. I: 6, 15) in eksperimentalna arheologija (Pleterski 2008b, 51–52, 56) kažejo, da so tovrstne pekače uporabljali med drugim za peko mlincev ali kruha.

Z izjemo enega pekača (*t. 22: 5*), ki je stratigrafsko umeščen v fazo 4b, ostalih odlomkov z Malega gradu stratigrafsko ni mogoče opredeliti.

6.4. LOCNATI VRČI

Na Malem gradu je ohranjenih nekaj delov lončenih vrčev za vodo. Poleg ravnega pokrova sta ohranjena dva ročaja in trije tuli (*t. 25*). Vsi deli pripadajo locnatim vrčem za vodo, natančneje tipu 1 po Kellerjevi (1999, 73–75; *sl. 6.6*). Ti se v Baslu pojavljajo od sredine 13. stoletja in v prvi polovici 14. stoletja, v jugozahodni Nemčiji pa že v zgodnjem 12. stoletju (Gross 1991, 101). Značilni zanje so enostavna ustja, locni, okrašeni s prečnimi vrezi ali koleščkanjem, in pravokoten prerez locna, ki pa še v 13. stoletju postane ovalen. Za ta tip locnatih vrčev je značilno še rahlo izvihano profilirano ustje.

Malograjski primerki nimajo zanesljivih stratigrafskih podatkov.

at the end of the Middle Ages (Keller 1999, 83–88 and 169–171). In rural households bowls were popular even at the beginning of the 20th century, which can clearly be seen from the traditional pottery products of the time (Karlovšek 1951; Novak 1951; Šifrer 1988).

The bowls can be differentiated according to their rim shapes, which do not help to date them. On the other hand the vessel shape can be of extreme help. Bowls with a broken body profile (*t. 23: 1*), were wheel-thrown. However, the bowls with a cone-shaped body were manufactured in both techniques, i.e. they were either handmade or wheel-thrown. An analogy for a Mali grad bowl (*t. 23: 9*) can be found as early as in the Early Medieval pottery from Pristava (Pleterski 2008a, t. 14: 3).

At first glance unusual is the fragment of the ceramic 'bowl with a handle for hanging' (*t. 23: 10*). This is a bowl merely in the sense of its shape, while as regards its use it is a ceramic cauldron. Analogies for such vessels can be found in Early Medieval material, for instance in Pristava near Bled (Pleterski 2008a, t. 19: 4) or in Rateče (Pleterski 2008b, 53–55, 76, sl. 4.92).

Taking into account the technological process used in manufacturing the Mali grad bowls can be divided into two groups. Handmade bowls (after treated on the slow spinning potter's wheel) prevail. The used raw materials do not differ from the one used for manufacturing handmade pots. However, the rims of the Mali grad bowls are not the same as the ones on contemporary pots, for instance the ones found in Basel (Keller 1999, compare Abb. 77 and Abb. 44). Nonetheless, as the same manufacturing process was used we can conclude that the Mali grad bowls were made in the same period. Taking into account that bowls hardly ever appear in the 11th and 12th century, the Mali grad bowls - handmade and after treated on the slow spinning wheel - are roughly dated into the 13th century.

The non-glazed wheel-thrown bowls from Mali grad can be dated into the 14th and 15th century. As the use of lead glaze spread across Europe towards the end of the 15th century, at least the interior of the bowls was almost always glazed. The wheel-thrown glazed bowls can therefore be placed at the earliest at the end of the 15th century, however it is more likely that they are later. Similar holds true for the bowl with the preserved ornamentation. It is most likely to be an under-glaze painting at which the glaze was not preserved.

Ceramic flat vessels for baking are typical for their up to one centimetre thick walls that are angled towards the exterior and have a sharp transition towards the bottom. Large quantities of silica and limestone were added to the clay for producing handmade ceramic flat vessels for baking. They all have an extremely similar shape, but they differ in size. 15th century ceramic flat vessels for baking (Keller 1999, 89–90; Wintergerst 1999, Typentafel 17: 16) usually measure between 20 and 25 centimetres

6.5. POKROVI

Lončeni pokrovi so služili za pokrivanje predvsem loncev. Na večini srednjeveških upodobitev kuhanja v lončenih posodah te niso pokrite. Kljub temu nekatere upodobitve dokazujejo uporabo cilindričnih pokrovov (*sl. 6.5*). Uporabi pri kuhanju so skoraj zagotovo služili pokrovi z luknjami (Münz 1997, 77, tipa DF 3 in 7), verjetno pa tudi drugi tipi cilindričnih pokrovov.

Drugi namen uporabe pokrovov je bil verjetno shranjevanje živil. Pri tem bi pokrovi služili predvsem za preprečevanje dostopa insektom in glodalcem. Raven pokrov je denimo pokrival locnat vrč (glej zgoraj).

Tudi pokrovi so na najdišču Mali grad ohranjeni le kot odlomki, zato o oblikah sklepamo le posredno preko primerjav. Vsi pa so bili izdelani na hitrem lončarskem kolesu. Glede na obliko držaja smo jih razdelili v pet oblikovnih tipov. V opisih uporabljeni velikostni pridevniki so zgolj primerjalni, saj majhno število primerkov ne omogoča količinskega opredeljevanja. Velikosti so razvidne z risb.

Tip 1. Konveksen pokrov z gumbastim držajem (*t. 21: 9*). Ohranjen je le en močno poškodovan odlomek. Gumbasti držaji so značilni za visoke pokrove. Ta tip pokrova se pojavlja v 15. stoletju (Münz 1997, Tafel 88, Abb. 3, tip DF6).

Tip 2. Konveksen pokrov z masivnim držajem (*t. 21: 6*). Bolj ali manj profiliran držaj majhnega ali srednjega premera je izrazito ločen od telesa z ozkim vratom. Ohranjenih je 9 primerkov. Masivni držaji so značilni za srednje visoke stožčaste pokrove. Ta tip pokrova se

in diameter, while the examples from Mali grad measure 20 and 35 centimetres across.

Ethnologic comparisons (Čausidis, Nikolov 2006, 97–100 and t. I: 6, 15) and experimental archaeology (Pleterski 2008b, 51–52, 56) show that such ceramic flat vessels for baking were also used for baking bread.

With the exception of a single vessel (*t. 22: 5*) that is stratigraphically placed into phase 4b, the remaining fragments from Mali grad can not be stratigraphically placed.

6.4. BOW-HANDLE JUGS

A few fragments of bow-handle water jugs have been preserved at Mali grad. Apart from the flat lid two handles and three spouts have also been preserved (*t. 25*). All of these parts belong to bow-handle water jugs, type 1 according to Keller (1999, 73–75; *sl. 6.6*). In Basel they appear in the mid 13th century and in the beginning of the 14th century, while in South-west Germany they appeared as early as the 12th century (Gross 1991, 101). Typical for them are the simple rims and handles, decorated with incisions or with a spiked wheel, and a rectangular cross-section of the handle, which becomes oval in the 13th century. For this type of bow-handle jugs a slightly overhanging profiled type 5 (see *Appendix 1*) rim is typical.

The examples from Mali grad do not have reliable stratigraphic data.



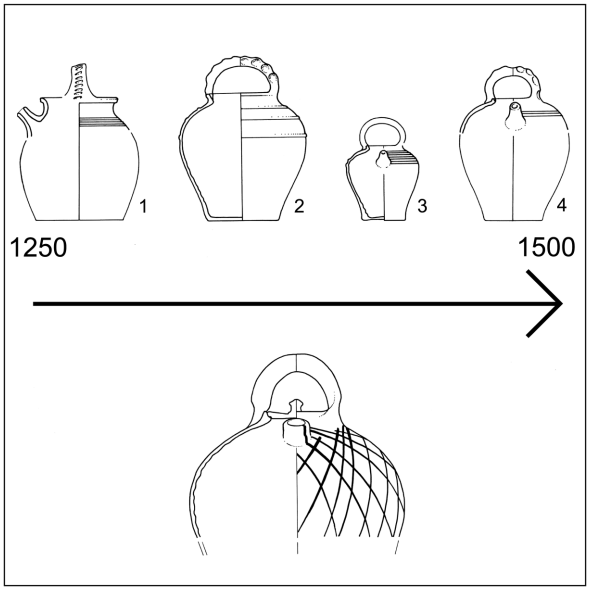
Sl. 6.5: Jost Amman, Knjiga poklicev (*Ständebuch*), 1568: *Kuhar*, lesorez (po Keller 1999, Abb. 173). V zgornji levi četrtini v ospredju pokrit sloki lonec med kuhanjem, v ozadju pokrit trinožnik.
Fig. 6.5: Jost Amman, Book of professions (*Ständebuch*), 1568: *Cook*, woodcut (from Keller 1999, Abb. 173). A covered slender pot used while cooking is depicted in the upper left quarter in the foreground, in the background a covered tripod-pot.

pojavlja od 15. do 17. stoletja (Ruttkay 1995, Obr. 12: 16, 17; Münz 1997, Tafel 88, Abb. 3, tip DF1; Keller 1999, 91–93, tip 7; Wintergerst 2002, Abb. 21, tip 7).

Tip 3. Konveksen pokrov z votlim držajem (*t. 21: 7, 8*). Bolj ali manj profiliran držaj srednjega ali velikega premera je izrazito ločen od telesa s širokim votlim vratom. Ohranjenih je 8 primerkov. Masivni držaji so značilni za srednje visoke stožčaste pokrove. Ta tip pokrova se pojavlja od 15. do 17. stoletja (Ruttkay 1995, Obr. 12: 18, 19; Münz 1997, Tafel 88, Abb. 3, tip DF2).

Tip 4. Konveksen pokrov z neizrazitim držajem, t. i. zvonast pokrov (*t. 21: 11*). Bolj ali manj profiliran držaj velikega premera je ločen od telesa le z zajedo. Ohranjenih je 6 primerkov. Neizraziti držaji so značilni za visoke pokrove. Ta tip pokrova se pojavlja v 14. in prvi polovici 15. stoletja (Ruttkay 1995, Obr. 9: 3; Kaltenberger 1997, Taf. 11: 188).

Tip 5. Raven pokrov z neprofiliranim gumbastim držajem in dvignjenim robom (*t. 25: 8*). Odlomek edinega primerka je dobro ohranjen. Gumbast držaj ostro prehaja v ravno telo, ki tekoče prehaja v dvignjen rob. Ravni pokrovi z gumbastim držajem so razmeroma pogosti (Ruttkay 1995, Obr. 8: 2; 9: 2; Lobbedey 1995, Taf.: 6: 208; Kaltenberger 1997, Taf. 11: 189–196; 16: 250; 17: 262–263; Keller 1999, 91–93, tip 6), a le redko z neprofiliranim držajem (Gross 1991, Taf. 79: 1–4, 8; Kaltenberger 1997, Taf. 11: 190). V Bernu so ravni pokrovi z gumbastim držajem značilni za drugo polovico



Sl. 6.6: Zgoraj tipi locnatih vrčev (prirejeno po Keller 1999, 73–75; merilo približno 1:6), spodaj locnat vrč iz Marbacha, Nemčija (po Gross 1991, Taf. 79: 8, merilo približno 1:3), pokrit z ravnim pokrovom z neprofiliranim gumbastim držajem.
Fig. 6.6: Above - types of bow-handle jugs (adapted from Keller 1999, 73–75; scale approximately 1:6), bellow - the bow-handle jug from Marbach, Germany (from Gross 1991, Taf. 79: 8, scale approximately 1:3), covered with a flat lid with a non-profiled button knob.

6.5. LIDS

Ceramic lids were mainly used to cover pots. Even though most medieval depictions do not show covered ceramic pots during cooking, some show that cylindrical lids were used (*fig. 6.5*). Lids with holes (Münz 1997, 77, types DF 3 and 7) were certainly used in cooking as were probably other types of cylindrical lids.

Lids were most likely also used to store food. When used in this function the lids prevented insects and rodents from accessing food. A flat lid, for example, was used to cover a jug (see above).

At Mali grad lids are preserved only as fragments, thus little can be concluded as regards their shapes. All of them were wheel-thrown. Taking into consideration the shape of the knob, the lids can be classified into five types. The size adjectives used in the following descriptions are used merely as a comparison, for the few samples do not allow for a quantifiable definition. The sizes can be seen in the drawings.

Type 1. Convex lid with a button-type-knob (*t. 21: 9*). Only a single heavily damaged fragment is preserved. The button-type-knob is typical for high lids. This type appears in the 15th century (Münz 1997, Tafel 88, Abb. 3, type DF6).

Type 2. Convex lid with a massive knob (*t. 21: 6*). The more or less profiled knob with a small or medium diameter is separated from the body of the lid with a long neck. 9 examples are preserved. The massive knobs are typical for medium height cone shaped lids. This type of lid appears between the 15th and 17th century (Ruttkay 1995, Obr. 12: 16, 17; Münz 1997, Tafel 88, Abb. 3, type DF1; Keller 1999, 91–93, type 7; Wintergerst 2002, Abb. 21, type 7).

Type 3. Convex lid with hollow knob (*t. 21: 7, 8*). The more or less profiled knob with a middle and large diameter is separated from the body with a broad hollow neck. 8 examples are preserved. The massive knobs are typical for the medium high cone shaped lids. This type of lid was used from the 15th to the 17th century (Ruttkay 1995, Obr. 12: 18, 19; Münz 1997, Tafel 88, Abb. 3, type DF2).

Type 4. Convex lid with an inexplicit handle, the so-called bell lid (*t. 21: 11*). The more or less profiled knob with a large diameter is separated from the body only by an insignificant cut. 6 examples are preserved. The inexplicit knobs are typical for high lids. This type of lid appears in the 14th and first half of the 15th century (Ruttkay 1995, Obr. 9: 3; Kaltenberger 1997, Taf. 11: 188).

Type 5. Flat lid with a non-profiled button knob and a raised edge (*t. 25: 8*). The only fragment is well preserved. The button knob traverses sharply into the flat body, which traverses smoothly into the raised edge. Flat lids with a button knob are relatively common (Ruttkay 1995, Obr. 8: 2; 9: 2; Lobbedey 1995, Taf.: 6: 208; Kaltenberger

14. stoletja, drugje v srednji Evropi pa se pojavljajo v 14. stoletju in prvi polovici 15. stoletja. Ti pokrovi so pokrivali locnate vrče (*sl. 6.6*).

Ohranjenih je tudi 8 ustij pokrovov (*t. 21: 1–5, 16*), ki jih lahko razdelimo v šest različnih tipov po Münzovi (1997, Tafel 89). Različna ustja pokrovov lahko preučujemo s stališča prileganja ustju loncev, vendar premajhno število ohranjenih primerkov na Malem gradu ne zadostuje za natančnejšo analizo. Hkrati malograjski primerki nimajo zanesljivih stratigrafskih podatkov.

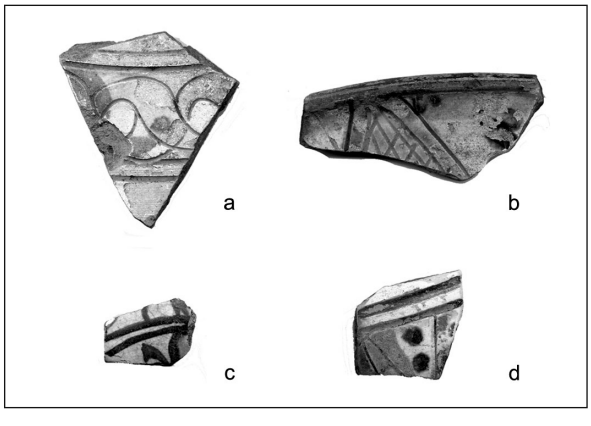
6.6. FINA NAMIZNA LONČENINA

Na Malem gradu so bili dokumentirani štirje odlomki fine namizne lončenine.

Odlomek majoličnega vrčka z modro in rumeno poslikavo na beli podlagi ter prozorno glazuro (*sl. 6.7*: c) verjetno lahko umestimo v konec 15. stoletja ali v 16. stoletje. Zaradi skromnih dimenzij natančnejša tipološka opredelitev in ugotavljanje provenience nista možna.

Za tri odlomke skled oz. globokih krožnikov, okrašenih z graviranjem in poslikavo ter glazuro (*sl. 6.7*: a, b, d), so značilne groba izdelava gravur in relativno debele stene. Verjetno gre za t. i. loško slikano meščansko lončenino (Slabe 1977), različno globoke krožnike in sklede. Za to je značilno krašenje z engobo in vrezi, čez katere je nanešena prozorna glazura. Najpogostejše barve so bakrovo zelena, manganovo vijolična, oker, svinčevo bela, kobaltovo modra, antimonovo rumena in železovo oranžna. Najpogostejši krasilni motivi so geometrijski, pojavljajo pa se tudi rastlinski ali živalski. Med geometrijskimi motivi zasledimo koncentrične kroge, obrobne pletenice s krožnimi ali oglatimi linijami, sosledja črk pik in cikcakastih ornamentov ipd. (Šubic 1980, 309–310).

Ta lončenina je značilna za 16. stoletje in prvo polovico 17. stoletja (Štukl 2004, 19; prim. Slabe 1977, 57).



Sl. 6.7: Mali grad, odlomki fine namizne lončenine (fotografija avtor, merilo 1:2).
Sl. 6.7: Mali grad, tableware fragments (photograph by the author, scale 1:2).

1997, Taf. 11: 189–196; 16: 250; 17: 262–263; Keller 1999, 91–93, type 6), but are rarely found with a non-profiled handle (Gross 1991, Taf. 79: 1–4, 8; Kaltenberger 1997, Taf. 11: 190). In Bern flat lids with a button knob are typical for the second half of the 14th century, elsewhere in Central Europe they appear in the 14th century and the first half of the 15th century. These lids were used for covering bow-handle jugs (*fig. 6.6*).

8 lid rims are also preserved (*t. 21: 1–5, 16*), and they can be divided into six various types according to Münz (1997, Tafel 89). The various lid rims can be studied as to how well they fit the pot rims, however an insufficient amount of them were preserved at Mali grad to conclude a precise analysis. The Mali grad examples do not have reliable stratigraphic data.

6.6. TABLEWARE

Four tableware fragments are preserved at Mali grad.

The majolica jug fragment with a blue and yellow pattern on a white surface and a transparent glaze (*fig. 6.7*: c) can most likely by placed into the end of the 15th century or into the 16th century. Due to the small size of the preserved fragment it is impossible to provide a more precise typological definition or ascertain its provenience.

The three bowl or soup plate fragments, decorated with engravings and painting as well as glazed (*fig. 6.7*: a, b, d) typically have rough engravings and relatively thick walls. Most likely this is the so-called painted Škofja Loka pottery (Slabe 1977). White slipware (engobe) with its incised decoration, across which a transparent glaze was applied, is typical for Škofja Loka painted ware. The most common colours were copper green, manganese violet, ochre, lead white, cobalt blue, antimony yellow and iron orange. The most common decoration motifs were geometrical; however animal and plant motifs also appeared. Amongst the geometrical motifs one can find concentric circles, a wicker-pattern with circular or angular lines, series of letters, dots, zigzag ornaments and similar (Šubic 1980, 309–310).

This pottery was used in the 16th century and the first half of the 17th century (Štukl 2004, 19; cf. Slabe 1977, 57).

The coloured engraved ornament with a circular pattern forming a concentric ring - similar to the Mali grad one (*fig. 6.7*: a) - can be found on the *shallow plate* from Škofja Loka, with the *central motif of the bird* (Slabe 1977, the second photograph between pages 56 and 57), and on the *plate with a female bust in profile* (Štukl 2004, slika 17). Similar is also the decoration on the majolica fragment from the Ljubljana castle that was dated into the first half of the 16th century (Horvat Ma. 1999, 146, t. 15: 6).

Barvan graviran ornament krožnega prepleta v koncentričnem pasu, podoben malograjskemu (*sl. 6.7*: a), najdemo na *plitvem krožniku* iz Škofje Loke, na katerem je *središčni motiv ptice* (Slabe 1977, druga fotografija med stranema 56 in 57), in na *krožniku z ženskim doprsjem v profilu* (Štukl 2004, slika 17). Podoben je tudi okras na odlomku majolike iz prve polovice 16. stoletja z Ljubljanskega gradu (Horvat Ma. 1999, 146, t. 15: 6).

Odlomek krožnika (*sl. 6.7*: b) je podoben *krožniku* iz Škofje Loke *z vrezano letnico 1583* (Šubic 1980, 309). Motiv na malograjskem krožniku, koncentrično razporejeni trikotniki, je enak motivu *sklede s slikanim okrasom iz Poljanskih vrat*, prav tako iz Škofje Loke (Šubic 1980, 310; Štukl 2004, slika 14). Povsem enak motiv, niz šrafiranih trikotnikov, najdemo na *večbarvnem loščenem* škofjeloškem *krožniku* (Slabe 1977, četrta fotografija med stranema 56 in 57) ter na odlomku krožnika, ki ga hrani Narodni muzej Slovenije (Kos 1999, t. 18: 2).

Odlomek slikane in glazirane zaprte posode (*sl. 6.7*: c) je preslabo ohranjen, da bi ga lahko natančno opredelili. Slikanje podobnega, morda cvetličnega okrasa z modro barvo na beli podlagi najdemo na primer na vrčku s Predjamskega gradu iz druge polovice 16. stoletja (Schein 1999, 146, t. 14: 4).

Obravnavani odlomki so na Malem gradu brez stratigrafskih podatkov.

6.7. PEČNICE

Na Malem gradu smo dokumentirali 25 odlomkov pečnic. Te so sestavni del lončene peči za ogrevanje prostorov, katere preučevanje ima dolgo tradicijo (Gaspari et al. 1994, 47–51; glej tam navedeno literaturo).

Predhodnice peči s pečnicami, kamnite kupolaste peči, najdemo v 10. stoletju na primer na gradu Sulzbach v južni Nemčiji, dinastičnem sedežu istoimenske rodbine (Hensch 1998, 82). Težo kamnite kupole so od konca 11. stoletja dalje – najprej na pomembnejših gradovih v Švici – razbremenjevali z vzidavo lončastih pečnic (Tauber 1980). Te so bile obrnjene navzven bodisi z ustjem bodisi s koničnim delom. Takrat so tudi začeli kuriti peči, ki so imele sprva kurišče znotraj ogrevanega prostora, iz sosednjega prostora. Ta lastnost je ostala ena temeljnih značilnosti lončenih peči še v 18. stoletju (prim. Gaspari et al. 1994, 50). Uporaba takšnih lončenih peči se je v 12. in 13. stoletju razširila predvsem v alpskih in predalpskih deželah, sprva na gradovih, v 13. stoletju pa tudi v mestih (prim. Gaspari et al. 1994, 53; Felgenhauer-Schmiedt 1995, 125).

Naslednja stopnja v razvoju so peči s kvadratnimi lončastimi pečnicami. Te so omogočale, da je bila celotna nadgradnja peči, t. i. ogrevalni del, izdelana iz pečnic. Šele takšne peči, ki so se razširile v 14. stoletju, so lončene v pravem pomenu besede. Za zunanji videz peči so pomembno novost predstavljale oploščene pečnice. Na

The plate fragment (*fig. 6.7*: b) is similar to the *plate* from Škofja Loka with an engraved year *1583* (Šubic 1980, 309). The motif on the Mali grad plate (concentrically sorted triangles) is the same to the one on the *bowl with a painted decoration from Poljanska vrata*, also from Škofja Loka (Šubic 1980, 310; Štukl 2004, slika 14). The exact same motif, a line of hatched triangles, can be found on the *multi-coloured varnished plate* from Škofja Loka (Slabe 1977, the fourth photograph between pages 56 and 57) and on the plate fragment that is kept at the National Museum of Slovenia (Kos 1999, t. 18: 2).

The fragment from the painted and glazed closed vessel (*fig. 6.7*: c) is in such a poor state that it can not be precisely defined. The painting on a similar - maybe floral - blue decoration on a white surface can be found also on the mug from the Predjama castle, which dates to the second half of the 16th century (Schein 1999, 146, t. 14: 4).

The discussed fragments do not have any stratigraphic data on Mali grad.

6.7. STOVE TILES

25 stove tile fragments have been documented at Mali grad. These are component parts of the tiled stoves used for heating rooms, the study of which has a long tradition (Gaspari et al. 1994, 47–51; see cited literature).

The forerunners of the tiled stoves, stone dome stoves can be found for instance in the 10th century at the castle Sulzbach in South Germany, the dynastic headquarters of a family with the same name (Hensch 1998, 82). From the 11th century onwards – at first merely at the important castles in Switzerland - the weight of the stone dome was lessened by including ceramic pot like tiles (Tauber 1980). These were turned towards the exterior either with the rim or with the coned part. At that time stoves with the furnace outside of the heated room began appearing. This remained one of the basic characteristics of tile stoves even in the 18th century (cf. Gaspari et al. 1994, 50). The use of tile stoves spread throughout the Alpine and Sub-alpine territories in the 12th and 13th century, at first in castles and in the 13th century also in town houses (cf. Gaspari et al. 1994, 53; Felgenhauer-Schmiedt 1995, 125).

The next step in the development is represented by stoves with square-rim tiles. They enabled for the entire heating part of the stove to be made from tiles. Such stoves spread in the 14th century. The panel-type stove tiles presented an important novelty for the exterior appearance of the stove. In the 14th century rich sculpture ornamentation developed on the tiles (Tauber 1980, 325–333). The motifs depicted scenes from the court, of knights, rulers, animals or were mythological, biblical, architectural, heraldic, or non-figural (Roth Kaufmann 1994, 60–85; cf. Pavlík, Vitanovský 2004, 27–188; for an example of the biblical series see for

teh se je v 14. stoletju razvil bogat plastičen okras (Tauber 1980, 325–333). Motivi na teh pečnicah so bili dvorni, mitološki, svetopisemski, arhitekturni, viteški, prikazi vladarjev, heraldični, živalski in nefiguralni (Roth Kaufmann 1994, 60–85; prim. Pavlík, Vitanovský 2004, 27–188; za primer svetopisemske serije glej npr. Stelzle-Hüglin 1993). Že v prvi polovici 14. stoletja se pojavijo tudi glazirane oploščene pečnice iz specializiranih delavnic (Engelbach 1993, 132). Na koncu 15. stoletja, predvsem pa od 16. stoletja dalje, prevladajo pečnice s kositrovo oziroma majolično glazuro (Felgenhauer-Schmiedt 1995, 125).

Na tej stopnji se je funkcionalni razvoj lončene peči končal (*sl. 6.8*). Pozneje so se pojavljale le še izboljšave toplotnega izkoristka, na primer peči s sistemom dimnih kanalov ali peči na železnih podstavkih.

Vse malograjske pečnice kažejo podobnosti z lončenino, izdelano z uporabo hitrega lončarskega kolesa. Poleg sledi izdelave na hitrem kolesu ali v modelih so vse žgane oksidacijsko v pečeh z dobro nadzorovano atmosfero, lončarska glina pa ima malo primesi. Takšen postopek je za izdelavo pečnic običajen (prim. Krajíc 1997, 177–182).

En odlomek z Malega gradu pripisujemo čašastim pečnicam z okroglim ustjem (t. 24: 11). Ker pa je pri malograjskem primerku ohranjen le del telesa, pečnice ni mogoče natančneje opredeliti. Nenavadno pri tem primerku je, da ni ohranjenih pričakovanih sledov saj ali ožganih ostankov (npr. Tymonová 2003, 583–584). Zato interpretacija odlomka ni popolnoma zanesljiva. Podobni sočasni predmeti so na primer vodovodne cevi, ki pa so običajno nekoliko stožčaste.

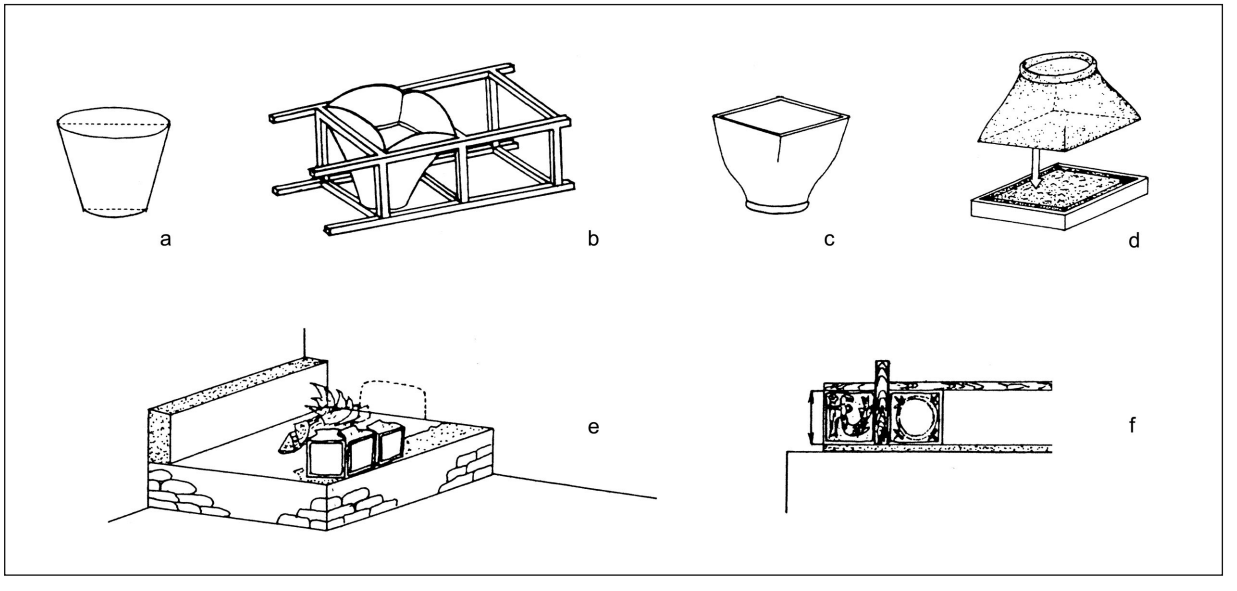
instance Stelzle-Hüglin 1993). Already in the first half of the 14th century new panel-type stove tiles appeared from specialised workshops (Engelbach 1993, 132). At the end of the 15th century, and especially from the 16th century onwards, stove tiles with a tin or majolica glazing prevailed (Felgenhauer-Schmiedt 1995, 125).

This brought the functional development of the tiled stove to an end (*fig. 6.8*). Later only minor heating improvements were added, for instance smoke canals or metal legs.

All stove tiles from Mali grad show technological similarities with wheel-thrown pottery. Apart from the manufacturing traces from the fast spinning wheel or the models all were burnt in furnaces with a controlled oxidising atmosphere, and the clay had a few non-plastic additions. Such a process is typically used to produce stove tiles (cf. Krajíc 1997, 177–182).

One fragment from Mali grad can be classified as a part of a pot-type stove tile with a round rim (*t. 24: 11*). As only a fragment is preserved the tile can not be precisely defined. It is unusual that there are no preserved traces of soot or charred remains (cf. for instance Tymonová 2003, 583–584). Thus the interpretation of the fragment is not entirely reliable. Similar objects from the same period are for instance water pipes, however they are usually slightly conically shaped.

Preserved are also three examples of square pot-type stove tiles (*t. 24: 7*), such as are also found for instance in the Ljubljana (Kramberger 1994, 71 and kat. št. 1–5), Celje (Guštin et al. 2001, kat. št. 48) and Šalek castles (Brišnik 1997, kat. št. 1).



Sl. 6.8: Izdelava lončaste pečnice (a), ki se s pomočjo lesenega okvirja (b) priredi v lončasto pečnico s kvadratnim ustjem (c). Če se tej doda kvadratna plošča (d), nastane oploščena pečnica. Iz kvadratnih pečnic se lončena peč zida (e, f; prirejeno po Krajíc 1997, 71–73, 75). Postopek izdelave razkriva tudi tipološki razvoj od lončastih (a, c) do oploščenih (d) pečnic.
Fig. 6.8: Manufacturing panel-type stove tiles: a pot like tile (a); a wooden frame (b) is used to make the square rim (c). If a square plate is added to it (d) we get a panel-type stove tile. The tile stove is built from square stove tiles (e, f; adapted from Krajíc 1997, 71–73, 75). The manufacturing procedure also reveals the typological development from pot-type (a, c) to panel-type (d) stove tiles.

Ohranjeni so tudi trije primerki skledastih pečnic s kvadratnim ustjem (*t. 24: 7*), kakršne najdemo na primer na Ljubljanskem gradu (Kramberger 1994, 71 in kat. št. 1–5), v Celju (Guštin et al. 2001, kat. št. 48) in na gradu Šalek (Brišnik 1997, kat. št. 1).

Šest je oploščenih pečnic z geometrično in rastlinsko motiviko (*t. 24: 3–5, 9*), ki je značilna predvsem za 16. stoletje (Kramberger 1994, 75). Edini glazirani malograjski pečnici (*t. 24: 3*) najdemo podoben motiv na ravno tako zeleno glazirani pečnici z Ljubljanskega gradu (Kramberger 1994, kat. št. 63). Odlomek pečnice s kombinacijo rastlinskega in geometričnega okrasa (*t. 24: 4*) sodi med t. i. pečnice s tapetnim okrasom, kakršne so bile najdene tudi na Ljubljanskem gradu (Kramberger 1994, kat. št. 120–124) in na gradu Šalek (Brišnik 1997, kat. št. 21). Malograjski pečnici s podrobneje nedoločljivim rastlinskim okrasom (*t. 24: 6*) je podobna pečnica iz Celja (Guštin et al. 2001, kat. št. 252). Tudi podobna malograjska pečnica (*t. 24: 9*) ima primerjavo v celjski pečnici (Guštin et al. 2001, kat. št. 225)

Biserni niz na eni od malograjskih pečnic (*t. 24: 8*) je podoben tistemu na odlomku roba pečnice z arhitekturnim okvirjem in pasijonskim prizorom (Kramberger 1994, kat. št. 64). Rastlinski motiv v kotu na isti malograjski pečnici pa je podoben odlomkoma pečnic s figuralnim okrasom z Ljubljanskega gradu (Kramberger 1994, kat. št. 86) in gradu Šalek (Brišnik 1997, kat. št. 15).

Zagotovo najzanimivejša primerka sta odlomka oploščenih pečnic s plastičnim figuralnim okrasom (*t. 24: 1, 2*). Odlomka z motivom konjenika sta bila izdelana v enakem modelu. Gre za pečnici z motivom viteza na konju, kakršne so bile tudi sicer zelo priljubljene in se pogosto pojavljajo v paru (Herbert 1994, 70).

Na malograjskem paru pečnic je mogoče prepoznati realistično upodobitev oboroženega konjenika. Iz odlomkov obeh pečnic je mogoče konjenika rekonstruirati skoraj v celoti, konja pa le deloma (*sl. 6.9*). Jezdec je pokrit s skledasto čelado ali čepico. V desni roki pod ramo drži naperjeno sulico, z levo roko drži konjsko uzdo. Oblečen je v dolgo suknjo, ki mu prekriva del beder. Iz upodobitve ni moč razbrati, ali gre za verižno srajco, t. i. bojno pregrinjalo (nem. *waffenrock*) čez verižno srajco, ali zgolj za suknjo. Ob levem boku ima jezdec pripet enoročajni meč ali sabljo. Pokrčena leva noga, obuta v škorenj, je zataknjena v streme. Podrobnosti stremena ali morebitne ostroge ni. Od konja so ohranjeni glava, sprednji del trupa ter sprednji nogi. Na konjevem gobcu prepoznamo strogo brzdo.

Upodobitev se v več podrobnostih razlikuje od običajnih upodobitev vitezov suličarjev (npr. Herbert 1994, Abb. 6: 15, 16; Keck 1995, Abb. 3, 4; Klusch 1995, Abb. 8; Pavlík, Vitanovský 2004, Obr. 528–552). Gre za čelado, ki ne pokriva obraza, mehke čevlje, relativno tanek drog sulice in odsotnost ščita. Tudi ogrinjalo se zdi zgolj suknja, saj so železne srajce od 13. stoletja dalje segale čez kolena (prim. Pavlík, Vitanovský 2004, Obr.

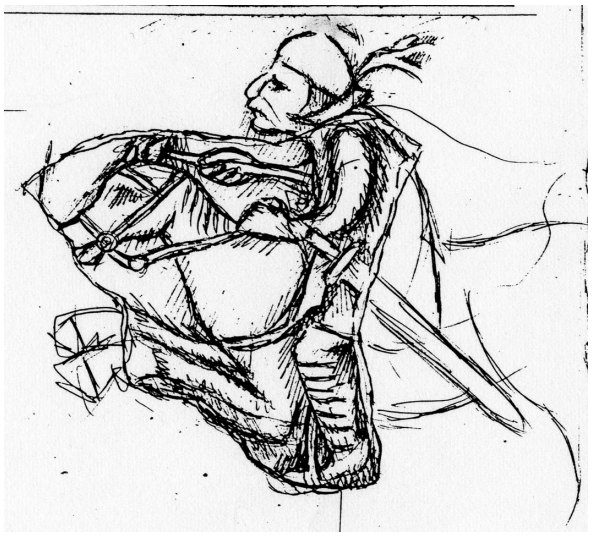
Six panel-type tiles with typical 16th century geometrical and plant motifs (*t. 24: 3–5, 9*) (Kramberger 1994, 75) were documented. The only similar motif to the one found on the tiles from Mali grad (*t. 24: 3*) was found on the green glazed tiles from the Ljubljana castle (Kramberger 1994, kat. št. 63). The fragment from the glazed tile with a combination of plant and geometrical decorations (*t. 24: 4*) belongs to the so-called stove tiles with a wallpaper decoration as found at the Ljubljana (Kramberger 1994, kat. št. 120–124) and Šalek castles (Brišnik 1997, kat. št. 21). The Mali grad tile with plant ornamentation (*t. 24: 6*) is similar to the tile from Celje (Guštin et al. 2001, kat. št. 252). A similar Mali grad tile (*t. 24: 9*) also has a comparison in the Celje tile (Guštin et al. 2001, kat. št. 225)

The pearl set on one of the Mali grad stove tiles (*t. 24: 8*) is similar to the one on the fragment of the tile edge with the architectural frame and a passion scene (Kramberger 1994, kat. št. 64). The plant motif in the corner of the same tile from Mali grad is similar to the fragments of the tiles with figural decoration from the Ljubljana (Kramberger 1994, kat. št. 86) and Šalek castles (Brišnik 1997, kat. št. 15).

Certainly the most interesting Mali grad examples are the fragments of panel-type stove tiles with a sculptural figural decoration (*t. 24: 1, 2*). Both fragments with the motif of the horseman were made with the same model. They are panel-type stove tiles with the motif of a knight on a horse, which were extremely popular and often appeared in pairs (Herbert 1994, 70).

The Mali grad pair realistically depicts an armed horseman. From the fragments of the two tiles the horseman can be reconstructed almost in his entirety, while the horse can be only partially reconstructed (*fig. 6.9*). The rider is covered with a helmet or a cap. Under his right shoulder he is holding a raised spear, while in his left hand he is holding the bridle. He is dressed in a long overcoat that covers a part of his thighs. From the depiction it is impossible to recognise whether it is a chain shirt, a so-called battle cape (in German *waffenrock*) dressed over chain shirt or merely an overcoat. A single handed sword or sabre is attached to the rider's left hip. The bent left leg in a boot that is in a stirrup. The details of the stirrup or the possible spur can not be seen. The horse's head, front part of the body and front legs are discernable. A strict curb is placed in the horse's mouth.

The depiction differs from the usual depictions of knight-spearmen (for instance Herbert 1994, Abb. 6: 15, 16; Keck 1995, Abb. 3, 4; Klusch 1995, Abb. 8; Pavlík, Vitanovský 2004, Obr. 528–552) in numerous details: the helmet does not cover the face, the shoes have a soft sole, the spear is relatively slender and the rider does not carry a shield. The cape is also closer to an overcoat, as chain shirts reached over the knees from the 13th century onwards (cf. Pavlík, Vitanovský



Sl. 6.9: Risarska rekonstrukcija motiva pečnice s suličarjem (risala Dragica Knific-Lunder, merilo 1:2).
Fig. 6.9: A reconstruction of the motif with the spearman found on a stove tile (drawn by Dragica Knific-Lunder, scale 1:2).

541). Predvsem pa izstopa položaj jezdeca na konju, ki jaha s pokrčenima nogama in sklonjen naprej. Običajen položaj srednjeveškega viteza na konju je pokončen s stegnjenima nogama (glej poglavje 5.4). Po vsem sodeč ne gre za upodobitev viteza, temveč "nomadskega" bojevnika. Ikonografsko je torej malograjska pečnica s suličarjem bliže pečnicam z upodobljenimi t. i. manj oboroženimi konjeniki (Pavlík, Vitanovský 2004, 95, Obr. 557–558), a dobre primerjave nismo našli.

Omenjenima pečnicama sta po motivu sorodni verjetno še dve. Na prvi (*t. 24: 10*) prepoznamo naperjeno sulico in perjanico čelade, na drugi (*t. 25: 1*) pa sprednje noge in gobec konja v diru. Zelo verjetno gre v obeh primerih za upodobitev viteza konjenika.

Malograjskim pečnicam z motivom viteza konjenika sta po realistični upodobitvi podobni neglazirani pečnici z motivom viteza konjenika s celjskega Starega gradu. Obe sta datirani v 16. stoletje, ena v prvo polovico 16. stoletja in druga v čas med letoma 1567 in 1579 (Bregant 1997, 32, št. 14 in 23).

Če omenjen valjast lončen predmet (*t. 24: 11*) res predstavlja čašasto pečnico z okroglim ustjem, je to najstarejša malograjska pečnica. Ohranjeni del telesa namreč nakazuje valjasto obliko srednjega dela telesa, ki je značilna za 13. in 14. stoletje (Tauber 1980, 312 in 316; Engelbach 1993, Abb. 2). Oploščene pečnice z Malega gradu lahko časovno umestimo na podlagi motiva in tehnike izdelave. Nobena izmed obravnavanih pečnic ni glazirana. Na drugi strani so prikazani motivi upodobljeni zelo natančno in v primeru konjenikov zelo realistično. Na pečnicah z viteškimi motivi iz prve polovice 15. stoletja (Herbert 1994, 70 in opomba 26; glej tam navedeno literaturo) so ti upodobljeni manj realistično.

2004, Obr. 541). Significantly different is the riding position, for the rider has bent knees and is leaning forwards. The usual position for a medieval knight on a horse is upright with straight legs (see chapter 5.4). Taking everything into account it is clear that the Mali grad stove does not depict a knight but a 'nomadic' warrior. Iconographically the Mali grad stove tile with the spearman is closer to the tiles with the depiction of the so-called less armed horsemen (Pavlík, Vitanovský 2004, 95, Obr. 557–558), however no analogies could be found.

Another two stove tiles have a similar motif to the last mentioned ones. On the first (*t. 24: 10*) a raised spear and a tuft of feathers covering the top of the helmet can be recognised, on the other (*t. 25: 1*) the front legs and the mouth of the horse in gallop. It is most likely that both examples depict a knight on a horse.

Similar in their realistic depiction are two stove tiles from the Celje Stari grad. Both are dated into the 16th century, one into the first half of the 16th century and the other into the period between 1567 and 1579 (Bregant 1997, 32, Nos. 14 and 23).

If the aforementioned cylindrical ceramic artefact (*t. 24: 11*) truly represents a pot-type stove tile with a round rim, then this is the oldest stove tile from Mali grad. The preserved part of the body shows the cylindrical shape of the central part of the body that is typical for the 13th and 14th century (Tauber 1980, 312 in 316; Engelbach 1993, Abb. 2). The panel-type stove tiles from Mali grad can be dated on the base of the motif and the production technique. None of the discussed tiles are glazed. On the other hand the motifs are depicted with extreme precision and in the example of the horsemen also very realistically. On the tiles from the first half of the 15th century (Herbert 1994, 70 and note 26; see cited literature) the knights are depicted in a less realistic manner. Thus it might be possible to typologically place the Mali grad tiles as early as the second half of the 15th century, even though it is more likely that they belong into the 16th century.

The Mali grad tiles could not be reliably stratigrafically placed

6.8. EARTHENWARE LAMPS

5 earthenware lamps, so-called tallow lamps (*t. 22: 1–4; 23: 4*) have been documented at Mali grad. These are oval vessels with a low wall, a flat bottom and a typical rim that is changed into an inexplicit funnel. As it is shown by the burnt remains on the Mali grad examples, this is where the wick was placed. And as the name tells us the most common fuel for these lamps in the Middle Ages was tallow.

Earthenware lamps appear in Alsace already in the 11th century, while in South Germany, Switzerland

Tako lahko malograjske pečnice tipološko umestimo morda že v drugo polovico 15. stoletja, verjetneje pa sodijo v 16. stoletje.

Malograjskih pečnic stratigrafsko ni bilo mogoče zanesljivo opredeliti.

6.8. LONČENE SVETILKE

Na Malem gradu smo dokumentirali 5 lončenih svetilk, t. i. lojenke (*t. 22: 1–4; 23: 4*). Gre za ovalne posode z nizko steno in ravnim dnom ter z značilnim, v neizrazit lij preoblikovanim ustjem. Kot dokazujejo tudi ožgani ostanki malograjskih primerkov, je bil tja prislonjen stenj. In kot govori že ime, je bilo v srednjem veku najpogostejše gorivo teh svetilk loj.

Lončene svetilke se v Alzaciji pojavijo že v 11. stoletju, v južni Nemčiji, Švici in Avstriji pa na prehodu iz 12. v 13. stoletje in so pogosta najdba na gradovih (prim. Gross 1991, 124–125; Felgenhauer-Schmiedt 1995, 128; Krauskopf 2005, 62–63).

Kljub enostavnim oblikam pa zaradi dragocenosti goriva lončene svetilke v 13. in 14. stoletju prištevamo k običajni prestižni opremi (Krauskopf 2005, 62; glej poglavje 8.7).

and Austria they appear at the break between the 12th and 13th century and are commonly found at castles (cf. Gross 1991, 124–125; Felgenhauer-Schmiedt 1995, 128; Krauskopf 2005, 62–63).

Regardless of their simple shapes earthenware lamps were considered prestigious utensils as the fuel was expensive in the 13th and 14th century (Krauskopf 2005, 62; see chapter 8.7)

7. ŽIVALSKE KOSTI IN KOŠČENI IZDELKI

Izkopavalci na Malem gradu živalskih kosti niso shranjevali. Peščico ohranjenih kosti tako lahko obravnavamo le kakovostno. Natančneje, podatek lahko upoštevamo le v smislu prisotnosti določenih kosti.

Kljub nezanesljivemu vzorcu, 27 delov kosti in ena cela kost, je rezultat analize živalskih kostnih ostankov na Malem gradu pričakovan. Prisotni so govedo, svinje, drobnica in jelenjad (*sl. 7.1*). Pri svinjah velja izpostaviti prisotnost juvenilnega primerka, pri govedu odžagano kost.

Rezultate lahko interpretiramo s pomočjo primerljivih najdišč z bolje zastopanim gradivom, kakršno je na primer grad Warberg na Bavarskem iz 12. in 13. stoletja (Pasada 1999).

Tam je bilo v vzorcu 1.100 živalskih kosti ali njihovih odlomkov največ kosti goveda in svinj. Med domačimi živalmi so bile zastopane v manjšem deležu še ovce in koze, konji, psi in kokoši. Večina svinj je bila ubitih v drugem ali tretjem letu starosti, več kot polovica govedi pa po četrtem letu. To kaže, da so bile glavne klavne domače živali svinje, govedo pa je služilo bodisi za pridobivanje mleka bodisi kot delovne živali. Kosti ovc in koz je bilo na gradu Warberg malo, toda druge raziskave so pokazale, da so jih v srednjem veku uporabljali za mleko in meso. Poleg tega so ovce seveda služile pridobivanju volne, kozje kože pa so bile pomemben vir usnja. Zelo skromni ostanki konjskih kosti so pripadali najmanj enemu tri in pol leta staremu konju, velikemu kot sedanji islandski poni. Kokoši, v srednjem veku koristne za nošenje jajc in kot klavne živali, so verjetno, a ne nujno, redili na gradu samem.

Izpovedne so sledi, ki so nastale na kosteh po poginotju živali. Kosti svinj kažejo, da gre pretežno za ostanke hrane. Nekatere so bile naknadno razbite zaradi mozga. Podoben vzorec kažejo kostni ostanki goveda. Zelo zanimive so sledi nožev na sklepih. Te kažejo, da so ude ločevali tako, da so nož zarili v sklep. Samo kosti svinj pa kažejo sledi zob mesojedcev. Med kostmi jelenjadi na gradu Warberg so bili tudi ostanki velikega odraslega jelena.

Uravnotežena zastopanost vseh kosti in predvsem prisotnost kosti, ki so bile ločene od mesa ob zakolu, kažeta, da so živali klali na gradu samem. Nesorazmeren

7. ANIMAL BONES AND BONE FRAGMENTS

Excavators at Mali grad failed to systematically collect animal bones. The fistful of preserved bones can be merely qualitatively treated. The data can be taken into account only in the sense of verifying the presence of certain bones.

Despite the unreliable source - 27 bone parts and one whole bone - the result from the animal bone remains analysis was in accordance to expectations. At Mali grad cattle, pig, sheep, goat and red deer bones were preserved (*fig. 7.1*). The presence of a juvenile pig should be exposed, as should the sawn off bone of cattle.

The results can be interpreted with the help of comparable sites that have a higher quantity of materials, such as for instance the Warberg castle in Bavaria that dates to the 12th and 13th century (Pasada 1999).

This site included a sample of 1100 animal bone fragments, mainly cattle or pig. From domestic animals sheep, goats, horses, dogs and chicken were represented to a lesser degree. Most pigs were slaughtered in their second or third year and more than half the cattle when they were four years old or older. This indicates that the main slaughter animals were pigs, while cattle served either as dairy or working animals. There were few sheep and goat bones at the Warberg castle, but other research has shown that they were used for milk and meat throughout the Middle Ages. Apart from this sheep were of course also used for their wool, while goat skins represented an important source of leather. The few horse bone remains belonged to a single horse that was at least three and a half years old and was of similar height to today's Icelandic ponies. Chicken, in Medieval times prized for their eggs as well as used as slaughter animals, were most likely (but not necessarily) raised at the castle.

The traces made on animal bones after they were killed are also important. The pig bones show that pigs were mainly used for food. Some were smashed in order to get to the bone marrow. A similar pattern is shown by the cattle bone remains. Knife traces can be found on joints, which indicates that the limbs were separated by pushing a knife into the joint. Only pig bones show teeth marks. The red deer bones from the Warberg castle included the remains of a fully grown stag.

ZE / CU	SE / SU	faza / phase	vrsta / species	element / element	število / number	opombe / notes
107			*Ovis* s. *Capra*	dens inf. (M_1) [1]	1 fr.	
107			*B. taurus*	metatarsus (dph)	1 fr.	
108			indet. spec.	indet. fr.	1 fr.	
109			indet. spec.	indet. fr.	1 fr.	
110			indet. spec.	indet. fr.	4 fr.	
112			indet. spec.	pelvis	1 fr.	velikost drobnice / sheep or goat size
112			indet. spec.	indet. fr.	1 fr.	
116			indet. spec.	indet. fr.	3 fr.	
116			indet. spec.	costa	1 fr.	
117			*Sus* sp.	dens sup. (M^2)	1 fr.	juvenilen primerek / juvenile
117			*Sus* sp.	dens inf. (C_1)	1	moški spol / male
117			*C. capreolus*	metatarsus (dph)	1 fr.	
117			indet. spec.	costa	2 fr.	
119			*Sus* sp. (?)	mandibula	1 fr.	
119			indet. spec.	indet. fr.	2 fr.	
156	1990/08	4a	indet. spec.	costa	1 fr.	velikost jelena / red deer size
156	1990/08	4a	indet. spec.	indet. fr.	1 fr.	
161	1990/08	4a	*C. elaphus* (?) [2]	radius (px)	1 fr.	
175			*S. domesticus*	mandibula	1 fr.	moški spol / male
175			*B. taurus*	metatarsus (px)	1 fr.	odžagan / sawed
175			*B. taurus* [3]	metatarsus	1	

Sl. 7.1: Preglednica kostnih ostankov po zbiralnih enotah, ki jih je določil Borut Toškan, Inštitut za arheologijo, ZRC SAZU. Opombe: 1. Na osnovi obrabe žvekalne površine ocenjena starost osebka ob zakolu na 6–12 mesecev. 2. Ohranjen je le droben fragment, ki pa je morfološko in dimenzijsko najbliže jelenu. 3. Iz dimenzij metatarsusa izhaja, da je bila višina ob vihru obravnavanega goveda približno 105 cm (izračunu po Matolcsijevih koeficientih), kar je znotraj variacijske širine za zgodnjesrednjeveška goveda iz vzhodne Evrope.
Fig. 7.1: Bone remains as defined by Borut Toškan, Institute for archaeology, ZRC SAZU. Notes: 1. Based on the use of the chewing surface the estimated age of the animal at slaughter was between 6 and 12 months. 2. Only a small fragment is preserved, morphologically and with its dimensions it is the closest to a stag. 3. From the dimensions of the metatarsus it appears that the shoulder height of the treated cattle was approximately 105 cm (calculated using the Matolcsi coefficients), which is within the variation height for Early Medieval Eastern Europe cattle.

delež svinj moškega spola pa kaže, da so živali za zakol pripeljali od drugod. Omenjena starostna struktura goveda ob zakolu, ki kaže na mlečno živinorejo, posredno priča o reji goveda na gradu.

Poleg tega sta bila na Malem gradu najdena tudi dva ostanka rogov jelenjadi. Ostanka rožičkov, katerih premer ob ohranjeni bazi je 1,2 centimetra, sta odpad surovine za izdelovanje različnih koščenih izdelkov. Kot kaže, so bili deli rogovja s premerom, manjšim od 1,2 do 1,4 centimetra, zavrženi kot neuporabni. Takšni izdelki so bili na primer koščeni gumbi, igralne kocke, glavniki ali prestižne okrogle pasne zaponke z železno iglo. Poleg rogov so bile za obdelovanje najpogosteje uporabljene dolge kosti goveda in redkeje konj, ki so jih ozaljšali s poliranjem in barvanjem. Zdi se, da je bilo izdelovanje koščenih izdelkov v visokem srednjem veku pogostejše kot v poznem srednjem veku (prim. Jaworski 1995; Richterová 1996; Beutmann 2006).

A balanced representation of the bones and especially the presence of bones that were separated from the meat at slaughter show that the animals were slaughtered at the castle. The disproportionate share of male pigs shows that they brought animals for slaughter from elsewhere. The mentioned age group of the slaughtered cattle, which indicates cattle bred for milk, leads to the conclusion that the cattle were bred at the castle.

Two red deer antlers were also found at Mali grad. The small horns, the diameter of which measured 1.2 centimetres at their preserved base (it seems that antlers smaller than 1.2 or 1.4 centimetres were discarded), are remnants of the raw materials used for making various bone products. Such products were for instance bone buttons, dice, combs or prestigious belt buckles with iron pins. Apart from the horns the long bones from cattle (rarer those of horses) were also commonly used and treated by polishing and painting. It seems that bone products were more common in the High Medieval period than in the Late Medieval period (cf. Jaworski 1995; Richterová 1996; Beutmann 2006).

8. INTERPRETACIJA ARHEOLOŠKIH VIROV

8.1. PRAZGODOVINSKA IN RIMSKA FAZA 2

V fazo 2 smo umestili vse predsrednjeveške arheološke vire. Teh ni veliko in so razmeroma slabo dokumentirani. Poleg tega je bila večina izpovednega prazgodovinskega gradiva predhodno analizirana (Sagadin 1996). Zato nam bolj ali manj preostane le, da ponovimo zapisano.

Prazgodovinska plast (*SE 1990/03, 1992/03*) se je v obliki posameznih temnorjavih lis pojavljala nad avtohtono, arheološko jalovo ilovico (*SE 1990/02, 1991/02, 1992/02*; Sagadin 1996, 110–111). Iz opisov plasti je razvidno, da omenjene lise ne predstavljajo morebitnih vkopov, temveč le drugače obarvano ilovico neavtohtonega nastanka. Med prazgodovinskimi najdbami prevladujejo odlomki lončenine, dokumentirana pa sta bila tudi kamnito orodje in železen udarni nož. Slednji je mlajšeželeznodoben, ostale najdbe pa sodijo v zgodnjo bakreno dobo (Sagadin 1996, 113).

Zdi se, da je razprostranjenost najdb pogojena s koluvialnimi procesi, torej erozijo in akumulacijo (*sl. 8.1*). To je moč sklepati na podlagi opisa plasti, razprostranjenosti najdb in zaobljenosti odlomkov lončenine. Najdbe faze 2 so torej v drugotni legi, vsekakor pa izvirajo z območja grajskega hriba.

Isto velja tudi za rimskodobne najdbe, ki pa niso bile predhodno obravnavane. Ravno tako so bile dokumentirane v drugotni legi, v istih ali enakih plasteh temnorjave ilovice koluvialnega nastanka. Poleg nekaj posameznih odlomkov je bil dokumentiran le en skupek močno zaobljenih odlomkov rimskodobne lončenine, izkopan v rjavkasti ilovici med skalami ob vzhodnem zidu palacija (*sl. 8.1*). Odlomki so podrobneje neopredeljivi, kljub temu pa 14 odlomkov, velikih od 2 do 6,3 centimetra, lahko obravnavamo kot dokaz za rimskodobno dejavnost na malograjskem hribu.

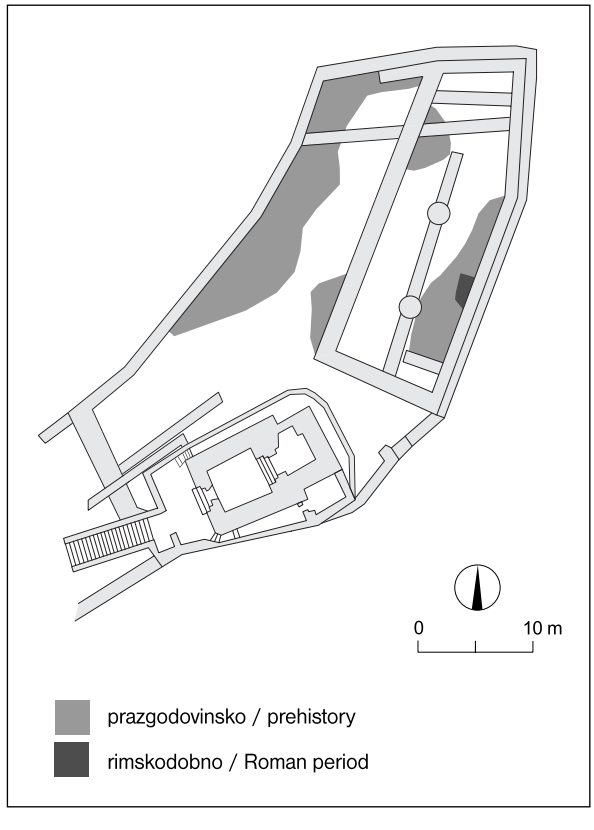
Sl. 8.1: Mali grad, območje prazgodovinskih najdb (vir: Sagadin 1996, sl. 1) in lega plasti z rimskodobnimi odlomki lončenine.
Fig. 8.1: Mali grad, the area where the prehistoric finds were discovered (source: Sagadin 1996, sl. 1) and the position with Roman period pottery fragments

8. INTERPRETATION OF ARCHAEOLOGICAL SOURCES

8.1 PREHISTORIC AND ROMAN PERIOD PHASE 2

Phase 2 is comprised of the scarce and poorly documented pre-Medieval archaeological sources. The diagnostic prehistoric finds have already been investigated (Sagadin 1996) and were as such not a part of this analysis. Therefore, we will merely briefly outline the results.

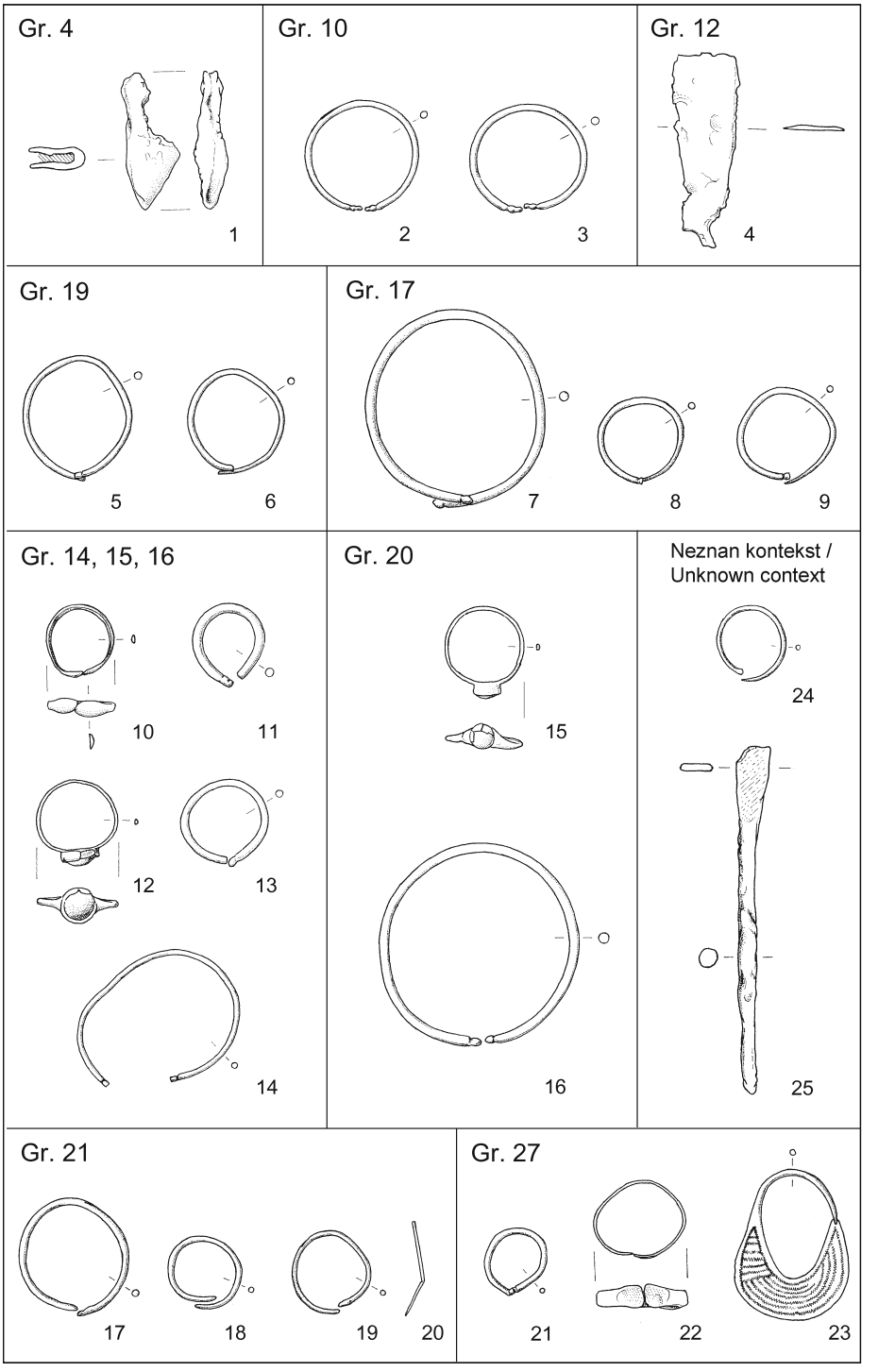
Patches of brownish clay with prehistoric finds (*SU 1990/03, 1992/03*) were consistently documented above the sterile yellowish-brown clay (*SU 1990/02, 1991/02, 1992/02*; Sagadin 1996, 110–111). The layer descriptions are sufficiently informative for the anthropogenic features to be excluded. These are merely patches of



8.2. ZGODNJESREDNJEVEŠKA FAZA 3

Faza 3 označuje srednjeveške stratigrafske enote, ki so starejše od gradu. Natančneje, gre za grobišče majhne skupnosti iz 10. in morda začetka 11. stoletja

non-autochthonous clay. Most prehistoric artefacts are pottery shards. Some stone tools and an iron knife have also been discovered. The latter belongs to the La Tène period, while the remaining finds are early Eneolithic (Sagadin 1996, 113).



Sl. 8.2: Kovinske najdbe z malograjskega grobišča (po Sagadin 2001, t. 1–3*;* M. = 1:2; 1, 4, 25: železo; 5–9, 11–24: bron; 2, 3, 10: srebro).

Fig. 8.2: Metal finds from Mali Grad cemetery (taken from Sagadin 2001, t. 1-3*;* scale 1 : 2; 1, 4, 25: iron; 5-9, 11-24: bronze; 2, 3, 10: silver).

(*sl. 1.5*). Nejasen je odnos grobišča do lege še neodkrite naselbine in do morda sočasnega grobišča na Žalah (*sl. 1.3*: 5). Prva možnost je, da imamo opraviti s sočasnima grobiščema in dvema naselbinama, katerih drugačen družbeni položaj je poudarjen s fizičnim ločevanjem v prostoru. Takšna je bila sočasna ureditev prostora v Blejskem kotu (Pleterski 1986). Druga možnost je, da gre za eno skupnost in premik naselbine ter grobišča po (delnem) sprejetju krščanstva, kar je na tem prostoru značilno za čas poznega 9. in 10. stoletja (prim. Sagadin 1997a, 109; Knific, Žbona-Trkman 1990, 511–513; Pleterski, Belak 1995; za Gorenjsko npr. Sagadin 1988, 69; Sagadin 1991b, 40–42). Natančnejši odgovor bo mogoč šele, ko bodo znani novi podatki.

Na podlagi analize grobnih pridatkov (Sagadin 2001; *sl. 8.2*) in dobrih antropoloških podatkov (Leben Seljak 2001) ter z uporabo metode soočenja namernih in funkcionalnih podatkov (prim. Lozić, Štular 2007) lahko sklepamo predvsem o usodah posameznikov (Štular 2007b). Vendar dokler ni o zgodnjesrednjeveški naselbini in drugem zgodnjesrednjeveškem grobišču nobenih podatkov, o zgodnjesrednjeveški poselitvi ne moremo razpravljati.

8.3. VISOKOSREDNJEVEŠKA FAZA 4A

Kot fazo 4a smo označili vse stratigrafske enote, nastale od nastanka gradu do vključno izravnave terena (*SE 1990/11*) za postavitev estriha (*SE 1986/10...*), hodne površine druge faze. Gre torej za čas prve gradbene faze gradu s prvim palacijem, obodnim zidom in verjetno še trdno hišo (*sl. 4.33*, zgoraj; zadnja platnica).

V to fazo smo lahko uvrstili tri stratigrafske enote v severozahodnem delu prvega palacija (*SE 1986/01–02, 1986/09*) in pet stratigrafskih enot v južnem delu drugega palacija (*SE 1990/06–09, 1990/11* in *1992/08*).

V prvem palaciju so bili ostanki faze 4a najbolje ohranjeni (*sl. 8.3*). To je razumljivo, saj gre za prostor, ki je bil v tej fazi zelo intenzivno uporabljan, v fazi 4b pa manj. To pomeni, da so bili na tem mestu ostanki faze 4a najmanj uničeni. Gre za hodno površino, estrih (*SE 1986/09*), in plast, ki je nastajala na njem. Žal tem stratigrafskim enotam (*SE 1986/01–02, 1986/09*) ni bilo mogoče zanesljivo pripisati skorajda nobenih najdb, tako da o namembnosti ali časovni umestitvi prostorov prvega palacija ne moremo govoriti. Edina najdba z zanesljivim kontekstom, na estrihu v notranjosti prvega palacija (*SE 1986/09*), je danes izgubljen srebrnik Eberharda II. iz časa okrog leta 1180 (prim. Sagadin 1997a, 108). Ta najdba je zanesljiv *terminus post quem* prenehanja uporabe prvega palacija.

Tik nad skalno osnovo ob vzhodnem obzidju med prvim palacijem in vhodom (*SE 1990/06*; *sl. 8.3*) so bili najdeni trije odlomki lončenine. Gre za velike odlomke dolžine nad 5 centimetrov, kar dopušča domnevo, da

The distribution of these finds seems to be the result of colluvial processes, i.e. erosion and accumulation (*fig. 8.1*), which is confirmed by the layer descriptions and the roundedness of the pottery shards. The prehistoric finds of phase 2 were therefore not documented *in situ*, nevertheless they originate from the Mali grad hill.

Similar can be said for the Roman period finds that were not previously analysed. These were documented in the same patches of colluvial brownish clay. Apart from several isolated shards a group of rounded Roman period shards was found in the brownish clay embedded in the bedrock niches at the Eastern castle wall (*fig. 8.1*). There were no diagnostic shards. Based on fabric these 14 shards (2 to 6.3 centimetres long) can be securely dated to the Roman period.

8.2. EARLY MEDIEVAL PHASE 3

Phase 3 is Medieval but older than the castle. In this phase a small community cemetery from the 10th and possibly early 11th century was discovered (*fig. 1.5)*. The relation between this cemetery, the still undiscovered appurtenant settlement and the possible 2nd Early Medieval cemetery at Žale (*fig. 1.3*: 5) remains unclear. However, two answers appear to be likely. One theory is that two contemporary cemeteries were used by the inhabitants of two contemporary settlements. In this case the social differences between the two groups would be accentuated by a separation in the landscape, as is the case in the contemporary Bled region (Pleterski 1986). The second possibility is that a single community moved its cemetery following the (partial) Christianisation, which was often the case in this region during late 9th and 10th century (cf. Sagadin 1997a, 109; Knific, Žbona-Trkman 1990, 511–513; Pleterski, Belak 1995; for Carniola see Sagadin 1988, 69; Sagadin 1991b, 40–42). It will be possible to obtain a clear answer only through new data.

Based on the analysis of the grave artefacts (Sagadin 2001; *fig. 8.2*) and solid anthropological data (Leben Seljak 2001) it was possible to compare the intentional and functional data (cf. Lozić, Štular 2007). Through this the faiths of some individuals could be discerned (Štular 2007b). Only new data will make it possible to discuss the society and landscape on a larger scale, though.

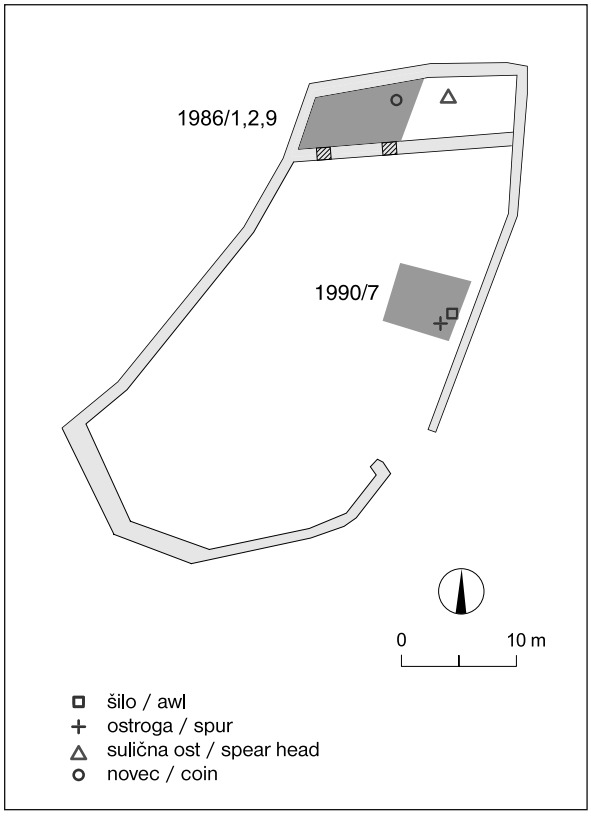
8.3. HIGH MEDIEVAL PHASE 4A

This layer consists of all layers formed from the building of the oldest castle until (and including) the terrain levelling (*SU 1990/11*) for the mortar pavement (*SE 1986/10...*), i.e. the ground surface of phase 4b. This was the 1st phase of the castle construction that included the

so bili najdeni v prvotni legi. Odlomek enostavnega zaobljenega ustja z užlebitvijo na notranji strani tipološko sodi v tip 6G, značilen predvsem za 12. stoletje (za opis posameznih tipov glej *Prilogo 1* in *Prilogo 2*).

Največ najdb faze 4a izvira iz zemljene plasti (*SE 1990/08*) prvega palacija (*sl. 8.3*). Interpretacijo izkopavalcev, da gre za izravnalno nasutje, potrjuje tudi tafonomija lončenine. 78 odstotkov izmed 91 odlomkov lončenine ima dolžino manjšo od treh centimetrov, ostali manjšo od petih. Določljiva odlomka ustij, enostavno oglato ustje (tip 2C) in široko izvihano ustje (tip 6F), sta značilna za 10. in 11. stoletje oziroma 11. in 12. stoletje. Najverjetneje je plast nastala v času gradbenih posegov ob veliki prezidavi gradu, ki označuje fazo 4b. Najdbe v drugotni legi pa izvirajo iz starejših kontekstov, nastalih v času faze 4a.

Na istem prostoru so bili dokumentirani tudi vkopani objekti (*SE 1990/07*), ki neposredno pričajo o dejavnostih v fazi 4a (*sl. 8.3*). To območje takrat ni bilo pozidano. Vkope in ožgano ilovico v njih je mogoče interpretirati kot objekt, zgrajen v tehniki predalčenja. Na istem mestu se omenja tudi kurišče, v katerem oziroma na katerem je bilo dokumentiranih pet drobnih odlom-



Sl. 8.3: Mali grad, lega stratigrafskih enot in najdb faze 4a: šilo (*t. 6: 6*), ostroga (*t. 3: 4*), sulična ost (izgubljena) in novec (izgubljen, kovan ok. 1180).
Fig. 8.3: Mali grad, the stratigraphic units area, where phase 4a metall small finds were discovered: awl (*t. 6: 6*), spur (*t. 3: 4*), spearhead (lost) and silver coin (lost, forged around 1180).

1st palatium, the walled inner castle bailey and possibly a strong house (*fig. 4.33*, top; back cover).

Three layers in the north-western part of the 1st palatium (*SU 1986/01–02, 1986/09*) and five layers (*SE 1990/06–09, 1990/11, 1992/08*) in the south of the 2nd palatium belong to this phase.

The archaeological remains from this phase were best preserved in the 1st palatium. As the area was heavily used in phase 4a but only slightly in the subsequent phases this comes as no surprise. These are the remains of a mortar pavement layer (*SU 1986/09*) and layers (*SU 1986/01–02, 1986/09*) that developed on top of this pavement. Unfortunately no artefacts could be ascribed to these layers with a high degree of certainty. The activities and the dating of these rooms can therefore not be discussed. The only find that was found directly on the pavement (*SU 1986/09*) is a silver Eberhardt II coin from around 1180 (cf. Sagadin 1997a, 108). This find - that was unfortunately lost - is a reliable *terminus post quem* for the abandonment of the 1st palatium.

Just above the bedrock at the eastern wall, between the 1st palatium and the castle entrance, (*SU 1990/06*) 3 large (exceeding 5 centimetres in length) pottery shards were found (*fig. 8.3*). The size allows for the assumption that these shards were documented *in situ*. A type 6G rim shard is typical for most of the 12th century (for the description of the pottery rim types see *Appendices 1* and *2*).

The largest quantity of phase 4a finds was located in the un-compacted soil layer (*SU 1990/08*) within the 1st palatium (*fig. 8.3*) . The original interpretation of the excavators that this was a levelling layer was confirmed by the analysis of the shard sizes. 78% of the 91 shards are less than 3 centimetres in length, and all of them are shorter than 5 centimetres. The only two rim shards that belong to type 2C and 6F can be dated into the 10th - 11th and 11th - 12th century respectively. The levelling layer therefore most likely appeared at the time when the castle was being rebuilt, in the break between phases 4a and 4b. The finds most likely belong to the so-called secondary refuse; they are therefore shards that belonged to pots used during phase 4a.

In the same area cuts (*SU 1990/07*; *fig. 8.3*) were documented that represent direct archaeological remains of the activities in phase 4a. At the time the area was not covered by a stone building, thus the cuts filled with burnt clay can be interpreted as post-holes that belonged to a timber framed structure. In the same area a hearth with 5 pottery shards and an unrecognisable iron fragment was documented (*SU 1990/09*).

In this area (*fig. 8.3*) a spur (*t. 3: 4*), an awl (*t. 6: 6*), a knife and a grindstone that all belonged to this phase were also found. The last two artefacts could not be properly identified. Typologically several knifes (*t. 5: 4, 5, 9*) could belong into this phase.

The described finds are a clear indicator of a building, the functionality of which is a matter of discussion.

kov lončenine in odlomek podrobneje neopredeljivega kovanega železnega predmeta (*SE 1990/09*).

Na istem prostoru so bili najdeni tudi ostroga (*t. 3: 4*), šilo (*t. 6: 6*), nož in brus (*sl. 8.3*). Slednjih dveh predmetov ne moremo z gotovostjo identificirati, vendar pa je med najdbami nožev kar nekaj takšnih, ki bi lahko sodili v fazo 4a (*t. 5: 4, 5, 9*). Našteto glede na opise kontekstov pripisujemo tej fazi.

Opisana koncentracija najdb jasno kaže na objekt, o katerega namembnosti pa lahko zgolj ugibamo. Izmed naštetega je najbolje opredljiva ostroga. Gre za izrabljen predmet, katerega najverjetnejša časovna opredelitev je 12. stoletje (glej poglavje 5.4). Ko lego ostroge povežemo z omenjenim objektom, se odpirajo tri možne interpretacije: (**i**) bivalni objekt jezdeca; (**ii**) hlev, kjer je shranjena tudi oprema jezdeca; (**iii**) ker je predmet poškodovan, bi šlo lahko za objekt, kjer se zbirajo predmeti za popravilo ali predelavo.

Prva interpretacija (**i**) je malo verjetna. Jezdec s takšnimi ostrogami v 12. stoletju je bil bodisi vitez ali vsaj njegov oproda, v Agliji imenovan *serjeant* (za izraz gl. Harding 2000). Družbeni status obeh oseb je bil dovolj visok, da bi bivali v sočasnem grajskem palaciju (Krahe 2002a, 102–103). Druga interpretacija (**ii**), hlev, je malo verjetna, saj ostroga sodi k opremi jezdeca in ne v konjsko opravo. Le shranjevanje slednje v samem hlevu je običajno. Ostane nam torej tretja možnost (**iii**), da gre za objekt, v katerem se zbirajo kovinski predmeti za popravilo ali predelavo.

Na visokosrednjeveškem gradu bi bila to lahko delavnica grajskega kovača, ki ni nujno stavba. Lahko bi šlo zgolj za večnamenski prostor na dvorišču, pokrit ali obdan s steno, grajeno v tehniki predalčenja, in prislonjen k obzidju. Takšno interpretacijo podpira tudi kurišče. Šilo, nož in brus pa pričajo tudi o drugih rokodelskih dejavnosti, ki jih lahko pričakujemo na gradu.

O najdbi sulične osti (*sl. 8.3*) ne vemo skoraj ničesar. Danes izgubljeni predmet je bil najden v izravnalni plasti tik za naslednjo gradbeno fazo 4b (*SE 1990/08*), po vsej verjetnosti torej v drugotni legi.

Lončenina, datirana v 11. in 12. stoletje, ostroga z najverjetnejšo datacijo v 12. stoletju in novec Eberharda II. iz časa okrog leta 1180 nakazujejo, da je faza 4a trajala večji del 12. stoletja.

8.4. VISOKOSREDNJEVEŠKA FAZA 4B

Največ najdb smo lahko pripisali fazi 4b, torej času druge gradbene faze. Zaradi načina izkopavanj gre izključno za najdbe iz grajskega jedra, kjer sta stala drugi palacij in malograjska kapela ter dvorišče z estrihom (*sl. 4.33*, sredina). Poleg tega naj spomnimo, da najdbe izvirajo iz plasti tik nad estrihom (*SE 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*), ki je nastajala najverjetneje ves čas uporabe hodne površine. Razen najdrobnejših predmetov vse ostale interpretiramo kot najdene na

A 12th century worn-out spur can be used as a clue (see chapter 5.4). In combination with the timber-framed structure this spur offers 3 possible interpretations: (**i**) a horseman's residence, (**ii**) a stable in which the horseman's equipment was kept or (**iii**), since it is a damaged spur, a building in which damaged metal objects were gathered.

The 1st interpretation is unlikely. In the 12th century a horseman with such a spur would be a knight or a *serjeant* (for term cf. Harding 2000). The social status of both was high enough to ensure living quarters within the stone built palatium (Krahe 2002a, 102–103). The 2nd interpretation is unlikely since the spur was not a part of the horse's equipment but an important part of the horseman's fitting that also happened to be an important social status symbol. This leaves us with the 3rd interpretation: an object in which damaged metal objects were gathered and/or kept.

Within a High Medieval castle such a structure could be the workshop of the castle's blacksmith. This did not have to be a proper building. It could have been merely a shed or even just a jutting roof. Such a workshop could serve various purposes. This interpretation is backed by the presence of the hearth. The awl, knife and grindstone witness other activities expected within a castle.

Hardly anything is known about the spear (*fig. 8.3*) from phase 4a. The nowadays lost artefact was found in the aforementioned levelling layer (*SU 1990/08*) and was therefore probably in a secondary context.

The pottery dated into the 11th and 12th century, the spur that most likely belonged into the 12th century and a silver coin from around 1180 indicate that phase 4a stretched over most of the 12th century.

8.4. HIGH MEDIEVAL PHASE 4B

The vast majority of the small finds were attributed to phase 4b, the 2nd castle building phase. Due to the used excavation method all finds derive from the castle's core, palatium and the inner bailey paved with mortar (*fig. 4.33*, middle). Almost all finds were located in the compact soil layer immediately above the mortar pavement (*SU 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*) that formed gradually during phase 4b. Apart from the smallest finds all are interpreted as found *in situ* where they were lost, placed down or in use just before the destructive fire.

10 metal small finds (*fig. 8.4*) were documented within the contemporary 2nd palatium. In the northernmost part of the palatium an iron chain and cauldron accessories (*fig. 8.4*: 5) were documented. These can only be interpreted as found *in situ*, which indicates that this must have been the kitchen. This is additional confirmed by the finds of the two fragments of ceramic flat vessels for baking (*fig. 8.4*: 18). This interpretation might have

mestu, kjer so bili izgubljeni, odloženi ali v uporabi v času tik pred požarom.

V notranjosti drugega palacija je bilo dokumentiranih deset kovinskih najdb (*sl. 8.4*). V severnem delu sta bila najdena veriga in kavelj za obešanje kotla (*sl. 8.4*: 5). Predmeta si težko razlagamo drugače kot najdena na mestu uporabe. Sodimo torej, da so bili v tem delu drugega palacija kuhinjski prostori. To interpretacijo potrjujeta tudi najdba odlomka lončenega pekača (*sl. 8.4*: 18) v istem prostoru in morda izgubljena bronasta aplika (*sl. 5.37*; *sl. 8.4*: 7), če ta v resnici sodi h kotlu.

Odlomek srpa, železna zagozda in čohalo (*sl. 8.4*: 20–22) so v to fazo umeščeni pogojno. V dnevniku so omenjene tri železne najdbe, ki so bile poslane v restavriranje in verjetno izvirajo s hodne površine (*SE 1990/14*). Našteti predmeti so edini trije restavrirani železni predmeti brez znanega konteksta. Če smo predmete pravilno prepoznali, bi tak skupek v bližini vhoda lahko interpretirali kot shranjevanje orodja ob vhodu v pritličje drugega palacija.

Dve kovinski najdbi iz južnega dela drugega palacija, sulična ost (*sl. 8.4*: 1) in streme (*sl. 8.4*: 4), tvorita smiselno celoto, saj gre za dva kosa konjeniške opreme. Zanimiva je tudi jama, napolnjena z velikimi prodniki (*SE 1990/12*; *sl. 4.25*), na vrhu katere je bilo streme najdeno, ki pa je ne znamo interpretirati.

Vsekakor se zdi ključ za interpretacijo namembnosti pritličja drugega palacija objekt v južnem kotu (*SE 1991/03*). Glede na obliko, velikost (Hensch 1998, 84–86) in lego v kotu (Krahe 2002a, 67–68) bi šlo lahko za veliko kaminsko ognjišče. Na tlaku tega objekta (*SE 1991/04*) je bilo dokumentiranih 53 odlomkov lončenine, od tega štirje odlomki ustij. Ta lončenina ne odstopa od siceršnjega razpona tipov – po en primerek tipov 1H in

Sl. 8.4: Mali grad, mesta posameznih najdb faze 4b: 2 – sulična ost (*t. 5: 1*); 3 – lonček (*t. 8: 2*); 4 – lednik, podkovski žebelj (*t. 7: 5*); 5 – streme (*t. 3: 5*); 9 – veriga z okroglimi členki in kavelj za obešanje kotla (*t. 1: 1, 2*); 10 – 2 železni pasni sponi (*t. 4: 3–7*); 11 – bronasta aplika (izgubljeno); 14 – novec (izgubljen); 15 – zlatarsko orodje (*t. 6: 7*); 16 – britev (*t. 5: 3*); 17 – sklepanec (*t. 6: 1*); 18 – členki verige (*t. 6: 2*); 19 – kresilo na verigi (*t. 1: 3*); 20 – puščična ost (*t. 5: 14*); 21 – ključ (*t. 2: 1*); 22 – zapah (*t. 7: 14*); 23 – ključ (*t. 2: 2*); 24 – odlomek lončenega pekača (*t. 22: 5*); 25 – ključ (*t. 2: 9*). Nezanesljivo opredeljene najdbe: 26 – srp (*t. 3: 1*); 27 – železna zagozda (*t. 3: 2*); 28 – čohalo (*t. 4: 1*).

Fig. 8.4: Mali grad, the area where phase 4b small finds were discovered: 2 - spearhead (*t. 5: 1*); 3 - pot (*t. 8: 2*); 4 - horseshoe nail used on ice (*t. 7: 5*); 5 - stirrup (*t. 3: 5*); 9 – kettle suspension chain and double hook (*t. 1: 1, 2*); 10 – 2 iron belt buckles (*t. 4: 3–7*); 11 – bronze attachment (lost); 14 - coin (lost); 15 - square-section stem (*t. 6: 7*); 16 – clasp rasor (*t. 5: 3*); 17 – chain (*t. 6: 1*); 18 – chain links (*t. 6: 2*); 19 – tinder on chain (*t. 1: 3*); 20 – arrowhead (*t. 5: 14*); 21 – key (*t. 2: 1*); 22 – bolt (*t. 7: 14*); 23 – key (*t. 2: 2*); 24 – fragment of ceramic flat vessel for baking (*t. 22: 5*); 25 – key (*t. 2: 9*). Find with uncertain locations: 26 – sicle (*t. 3: 1*); 27 – iron wedge (*t. 3: 2*); 28 – curry comb (*t. 4: 1*).

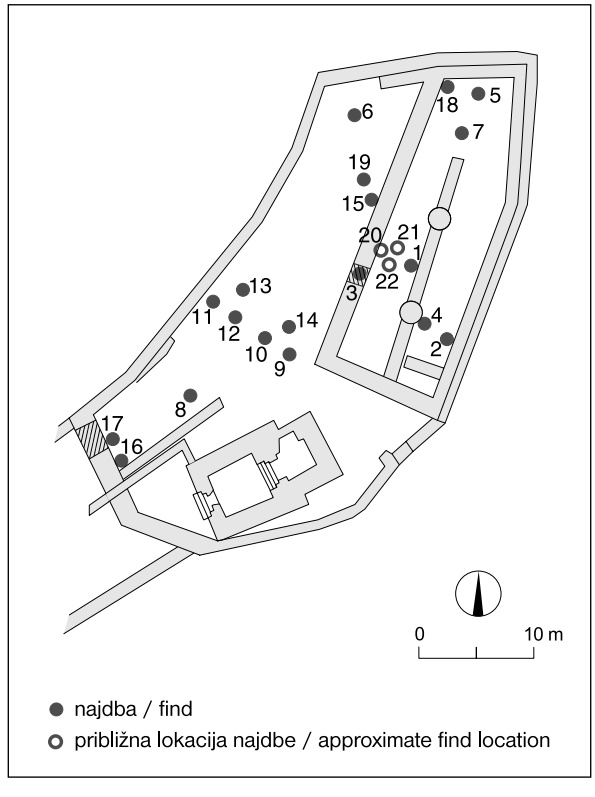
also been strengthened by the lost bronze accessory (*fig. 5.37*; *fig. 8.4*: 7) if it indeed belonged to the cauldron.

The sickle fragments, iron wedge and curry comb (*fig. 8.4*: 20–22) found in the main area of the 2nd palatium are also likely to be from phase 4b. If these objects were correctly identified then this group of tools in the vicinity of the ground floor entrance could be interpreted as an area designated for storing tools.

Two iron finds, a spear (*fig. 8.4*: 1) and a stirrup (*fig. 8.4*: 4) create a whole in the sense that they are both a part of a rider's equipment. Unfortunately, we were unable to interpret the intriguing pit filled with river pebbles (*SU 1990/12*; *fig. 4.25*) on top of which the stirrup was found.

The key for interpreting the 2nd palatium's ground floor seems to be the structure in the southern corner (*SU 1991/03*). Taking into account its shape, size (Hensch 1998, 84–86) and its position in the corner (Krahe 2002a, 67–68) this could be a remnant of a large fireplace. 53 pottery shards were documented - 4 of which were rim shards - on the pavement of this structure (*SE 1991/04*). The latter do not deviate from the average for phase 4b (cf. *fig. 8.7* and *8.8*): 1H, 6G and two 10E rim type shards. Due to the relatively large quantity of small fragments it seems that these shards were not found *in situ*. The opposite can be said regarding the extensive group of large fragments of broken pots found between the corner structure and the entrance (*fig. 8.9*).

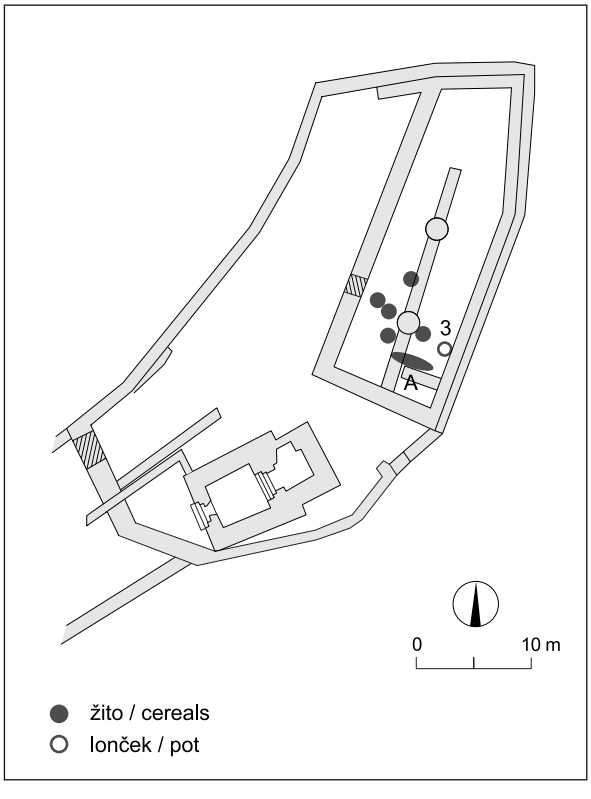
A small pot was found in the southern part of the 2nd palatium (*t. 8: 2*; *fig. 8.4*: 2). The pot was found on



6G ter dva odlomka tipa 10E – in velikosti odlomkov, dokumentiranih v fazi 4b (prim. *sl. 8.7* in *8.8*). Glede na veliko število razmeroma majhnih odlomkov se zdi, da najdbe ne ležijo na kraju uporabe. Na območju med vhodom in tem objektom je bila dokumentirana večja količina odlomkov loncev v prvotni legi (*sl. 8.9*).

V načrt smo umestili tudi lonček, ki je bil najden neposredno na zoglenelem žitu (*t. 8: 2*; *sl. 8.4*: 2). V južnem delu palacija je bilo dokumentiranih pet kupov zoglenelega zrnja poljščin. Gre za pšenico (*Triticum sativum*), oves (*Avena sativa*), ječmen (*Hordeum*), proso (*Panium miliaceum*) in bob (*Vicia faba*). Te kupe lahko razmeroma natančno umestimo tudi na načrt (*sl. 8.5*). Vendar je bil vsaj en kup zrnja (*sl. 8.5*: A) mešan (prim. Sagadin 1997a, 107). Takšna razporeditev znotraj shrambe se razmeroma dobro ujema na primer z razporeditvijo poljščin v sicer leseni kašči lokalnega fevdalca v vasi LaGravette v jugozahodni Franciji iz 11. stoletja. Ena stran te kašče je bila namenjena večjemu kupu oluščene pšenice, na drugi strani pa so bili različna žita in stročnice v manjših razdelkih lesenega recipienta (Ruas 2005). Slednjega si lahko predstavljamo kot leseno skrinjo z razdelki, kakršne so dokumentirane v etnoloških kontekstih druge polovice 20. stoletja (Štular 2008, sl. 4).

Najpomembnejša podrobnost za interpretacijo naštetih najdb je stratigrafska lega. V terenskem dnevniku je na več mestih izrecno omenjeno, da se *nad žganino pojavljajo kupi žita*. To žganino smo enako kot izkopavalec interpretirali kot strop pritličja oziroma pod prvega nadstropja (poglavje 4.2.3). Žito je bilo torej hranjeno



Sl. 8.5: Mali grad, mesti najdbe lončka (3) in zrnja poljščin (sivo).

top of one of the 5 piles of carbonised cereals and legume (wheat - *Triticum sativum*, oat - *Avena sativa*, barley - *Hordeum*, millet - *Panium miliaceum* and broad bean - *Vicia faba*). The piles could be mapped (*fig. 8.5*) and at least one (*fig. 8.5*: A) contained a mixture of grains from all of the mentioned plants (cf. Sagadin 1997a, 107). Such food storage corresponds to some other known examples, e.g. the granary of the 11th century feudal lord from the village La Gravette in Southwest France. A large pile of wheat was stored on one side of this granary and on the other side various cereals and legumes were stored in what seems to be a wooden receptacle with several small compartments (Ruas 2005). The latter must not have differed much from the chests with compartments documented in 20th century ethnological contexts and used for similar purposes (e.g. Štular 2008, sl. 4).

In order to reach a correct interpretation our attention has to focus on the stratigraphic data. The field diary repeatedly mentions that grain was found above the thick burnt layer. The latter can be interpreted only as the remains of the ground floor ceiling (see chapter 4.2.3). Therefore it appears that the castle's granary was placed on the 1st floor of the 2nd palatium and the mentioned pot could have served as a measuring receptacle.

We will continue with the finds from the inner bailey. The first is the arrowhead (*t. 5: 14*; *fig. 8.4*: 14) that can be interpreted as lost before the fire. Similar could be said for the horseshoe nail (*t. 7: 5; fig. 8.4:* 3) found on the doorstep of the 2nd palatium ground floor.

The goldsmith's tool (*t. 6: 7*; *fig. 8.4*: 9) could also be classified as a tool lost during its use. However, this cannot be said for the relatively large folding razor (*t. 5: 3*; *fig. 8.4*: 10). Should the razor (an intimate male accessory) be found *in situ* one could hardly explain its location on the communication route within the inner bailey. Therefore, a different interpretation has to be found. In order to explain the location of the razor and perhaps the goldsmith's tool the context must be considered. One expects to find a razor within the personal habitat of a man. Within a castle such rooms are commonly found (Makarovič 1988; Krahe 2002a, 103–105) on one of the upper floors of the palatium. Such a distribution of rooms or spaces does not deviate from what is known on the socially conditioned distribution of space where public spaces are found in front and personal spaces in the back - to give limited access (Allen 1999, 107–109; Mathieu 1999, 124, 134–136; Richardson 2003, 134–140; Cutting 2003, 3–4).

Considering the thickness of the Mali grad walls and comparing them to the contemporary analogies (Krahe 2002a, 38–39) it is highly likely that the palatium was at

Fig. 8.5: Mali grad, the locations where the small pot (3) and grains (grey) were found.

v prvem nadstropju, omenjeni lonček pa bi lahko služil za zajemanje.

V naslednjo skupino smo umestili najdbe s prostora grajskega dvorišča med drugim palacijem in obodnim zidom.

Puščično ost (*t. 5: 14*; *sl. 8.4*: 14) si razlagamo kot eno izmed najdb, ki so ležale na hodni površini že pred požarom. Podobno velja za podkovski žebelj lednik (*t. 7: 5; sl. 8.4:* 3), najden na pragu drugega palacija.

Pogojno bi med izgubljene predmete lahko uvrstili tudi zlatarsko orodje (*t. 6: 7*; *sl. 8.4*: 9), nikakor pa ne razmeroma masivne britve (*t. 5: 3*; *sl. 8.4*: 10). Če je bila britev, osebni predmet moškega, najdena v prvotni legi, si je na komunikacijskem prostoru dvorišča ne moremo razlagati. Lego britve in morda tudi zlatarskega orodja si lahko razložimo šele, ko upoštevamo okoliščine oziroma procese, ki so botrovali nastanku konteksta. Gre seveda za požar, v času katerega so se rušili tudi zidovi. Britev bi pričakovali v osebnem prostoru moškega. Tak prostor, glede na običajno razporeditev prostorov na gradu (Makarovič 1988; Krahe 2002a, 103–105), lahko pričakujemo v enem izmed nadstropij grajskega palacija. Takšna razporeditev je skladna tudi s splošnimi ugotovitvami o družbeno pogojeni razporeditvi prostorov. Javni prostor je navadno postavljen v ospredje, osebni pa je 'slepa ulica', umaknjena kar 'najgloblje', čim dlje od vhoda (Allen 1999, 107–109; Mathieu 1999, 124, 134–136; Richardson 2003, 134–140; Cutting 2003, 3–4).

Glede na debelino zidov in sočasne primerjave (Krahe 2002a, 38–39) je malo verjetno, da bi ne imel drugi palacij poleg pritličja še vsaj dveh nadstropij. To kažejo tudi nekateri stratigrafski podatki. Nad zoglenelim zrnjem (*SE 1991/07*), ki smo ga opredelili kot shranjenega v prvem nadstropju, so namreč izkopavalci v južnem delu drugega palacija naleteli na omet (*SE 1990/18*), nad katerim so se pojavljale sledi žganine (*SE 1990/17, 1990/19*). Slednje bi lahko predstavljale ostanek v požaru uničenega poda drugega nadstropja.

Ker je bila v prvem nadstropju najverjetneje shramba, so bili torej osebni prostori najpomembnejšega gradiščana lahko v drugem nadstropju. Omenjena predmeta, britev in zlatarsko orodje, bi lahko padla na dvorišče z višjih nadstropij ob rušenju zgradbe.

Naslednjo skupino predmetov faze 4b na grajskem dvorišču predstavljajo verižni člen (*t. 6: 2*), kresilo na verigi (*t: 1: 3*) in neznan predmet, morda pas sklepanec (*t. 6: 1*; *sl. 8.4*: 11–13). Kresilo je bilo pritrjeno na kraju uporabe, o čemer pričata veriga in nadpovprečna velikost predmeta. Namembnosti skupka predmetov ne poznamo, morda pa so kako povezani s sočasnim vkopom trapezastega tlorisa (*SE 1992/08*). Ta leži tik severno od skupine predmetov in v njem so se odvijale dejavnosti, povezane z ognjem. Tudi (**i**) pritrjeno (**ii**) kresilo kaže na (**i**) objekt s pogosto (**ii**) uporabo ognja. Misel o objektu, v katerem se odvijajo dejavnosti, ki vključujejo pogosto uporabo ognja, je torej toliko

least 3 storeys high, which is confirmed by certain stratigraphic data. Namely, above the piles of carbonised grain (*SU 1991/07*) that were stored on the 1st floor (see above), patches of roughcast were found (*SU 1990/18*) as was as another burnt layer (*SE 1990/17, 1990/19*) above that. The latter could be the remnants of the 2nd storey floor.

Since the Mali grad granary was on the 1st floor of the palatium the personal rooms of the most important male inhabitant of the castle are expected to be on the 2nd floor. The two objects, the folding razor and the goldsmith's tool, could have fallen on the inner bailey area as the building was crumbling during the fire. At this point the building stones found in the burnt layer of the inner bailey should be mentioned as supporting evidence.

The next group of phase 4b artefacts from the inner bailey is represented by a chain link (*t. 6: 2*), a tinder on a chain (*t: 1: 3*) and an unrecognised artefact that could be a dress accessory (*t. 6: 1*; *fig. 8.4*: 11–13). The relatively large tinder on a chain was probably fixed at the place of its use. It was impossible to recognise the function of this group of objects. It was therefore necessary to study the context, i.e. the shallow trapezoid shaped pit (*SE 1992/08*). The pit is situated slightly north of the location the artefacts were found. Activities connected to fire took place in the pit. The (**i**) fixed (**ii**) tinder can be connected to a (**i**) structure where activities connected to (**ii**) fire took place. The range of corresponding activities within a castle's inner bailey is rather limited: it could be the blacksmith's workshop or a second outdoor kitchen used for roasting larger animal for example.

In the inner bailey three keys (*t. 2: 1, 2, 9*) and a bolt with two iron guides(*t. 7: 1, 2, 14*; *fig. 8.4*: 15–17, 19) were found. Two keys were found just outside the 2nd palatium. The *in situ* position of the third key and the bolt are self explanatory. The key was used to lock the passage between the outer and inner bailey. The bolt with two looped staples could only have been used for locking the second passage leading from the inner bailey towards the chapel. This passage is predicted in the reconstruction drawing (*fig. 4.33*) that is based on the layout of the architectural remains.

In the western part of the castle, i.e. the outer bailey, only five of the discovered keys (*t. 2: 3, 5, 6, 8, 10*) could have belonged to phase 4b. Since there are no stratified finds from the outer bailey, this typological classification in phase 4b is somewhat unreliable (*fig. 8.6*). Still, the hypothesis that these keys were found *in situ* and that they represent a pendant to the inner bailey keys seems attractive.

636 pottery shards from 13 collective units (CU 128, 130, 135, 139, 144, 178, 184, 191, 197, 198, 200, 204, 211) were documented on the ground surface layers in the inner bailey (*SU 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*). 69 of the rim shards represent an expected typological span. Only a few rim shards belong to the typologically simpler forms (1D do 2G) or the complex wide 'curtain' types (10C, 10E). 65 % of all

verjetnejša. V okviru grajskega dvorišča je razpon takšnih dejavnosti omejen. Ker je bila kuhinja v pritličju palacija, naj kot najverjetnejša omenimo kovaštvo ali poletno kuhinjo.

Na grajskem dvorišču so bili najdeni trije ključi (*t. 2: 1, 2, 9*) in zapah z vodili (*t. 7: 1, 2, 14*; *sl. 8.4*: 15–17, 19). Dva ključa sta bila najdena tik ob zidu drugega palacija. Nedvoumna je lega tretjega ključa in zapaha z vodili. Odkrita sta bila v prvotni legi ob vhodu v grajsko jedro. Lego zapaha je mogoče razložiti le z drugim vhodom na tem prostoru, morda vhodom v kapelo, kot ga je predvidel avtor risarske rekonstrukcije (*sl. 4.33*).

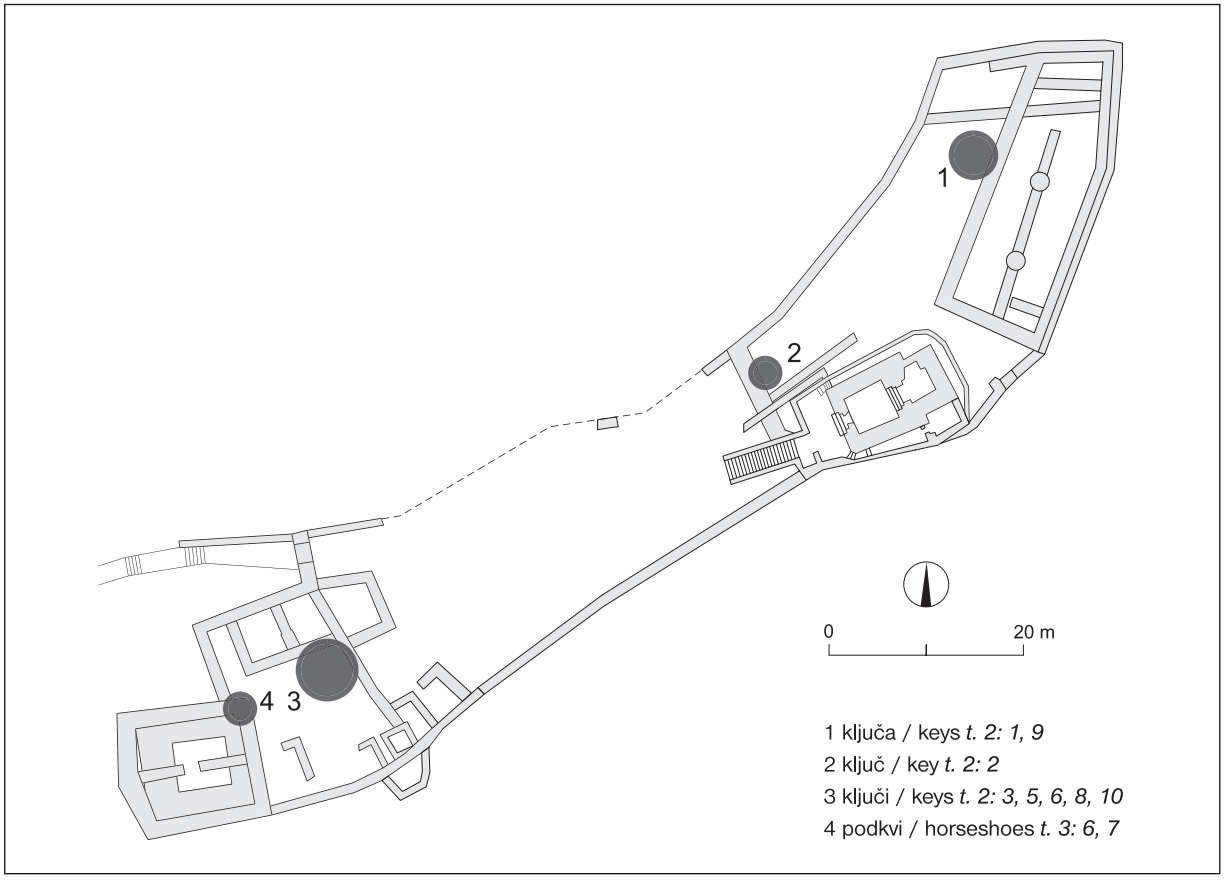
Od tipološko sočasnih najdb v zahodnem delu gradu se je ohranilo le pet ključev (*t. 2: 3, 5, 6, 8, 10*). O kontekstu ključev ne vemo ničesar, poznamo le približen prostor najdbe skupine petih ključev vzhodno od stolpa (*sl. 8.6*). Tipološko bi ključi lahko sodili v čas faze 4b, česar pa ne vemo zagotovo. Glede na položaj ključev v prvotni legi v vzhodnem delu gradu se zdi privlačna misel, da je bila tudi skupina ključev iz zahodnega dela gradu najdena v prvotni legi, morda celo skupaj.

Hodni površini faze 4b v grajskem jedru (*SE 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*) lahko zanesljivo pripišemo 636 odlomkov lončenine iz trinajstih zbiralnih enot (ZE 128, 130, 135, 139, 144,

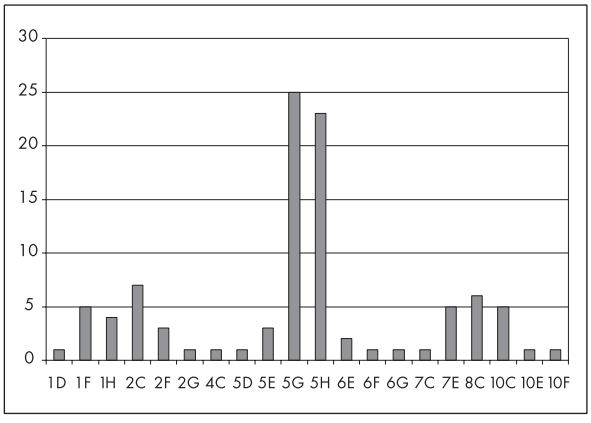
rims are from types that are typical for High Medieval pottery (*t. 15: 5, 7; t. 16: 6, 8, 9; t. 17: 1, 7*; *fig. 8.7*). The fragment from a wheel thrown pot lid can be set apart as the typologically youngest element (*t. 21: 4*). Since it is the only example of such pottery in phase 4b it might be an infiltrated find (for the term see Harris 1989, 150).

Small and medium sized shards measuring 5 centimetres or less in length are in the majority (*fig. 8.8*). Such finds are usually interpreted as secondary refuse (Orton 1993, 216; Blackham 2000, 475–778; Macháček 2001, 13–15). It is thought that these layers (*SU 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*) formed on the paved walking surface over a longer period of time. This interpretation therefore points towards the same conclusion. It can even be argued that the castle residents were note prone to hygiene, as it appears that paved walking surface in the inner bailey was not properly cleaned in decades. This is one of the fundamental characteristics of the life on the castle as we know it (Krahe 2002a, 99).

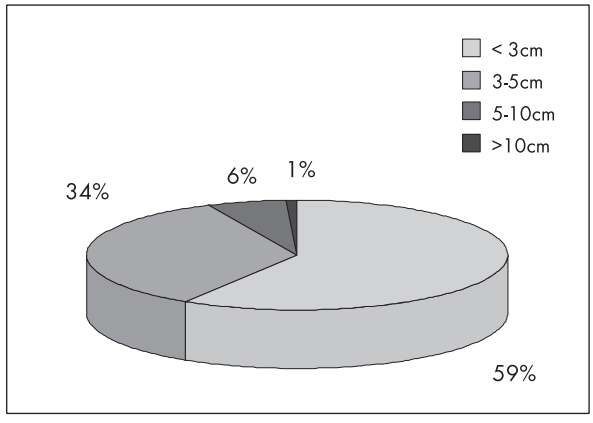
The pottery fragments from the southern part of the 2nd palatium stand out with their above average size (*SE 1991/06*; *fig. 8.9*). Approximately 80% of the large and all of the largest shards were discovered in this area. A few large shards (*SE 1990/19*; *fig. 8.9*) were documented next to them, all above the paved walking surface and under the



Sl. 8.6: Najdbe ključev in konjskih podkev.
Fig. 8.6: Finds of keys and horseshoes.



Sl. 8.7: Tipološka preglednica odlomkov ustij, ki zanesljivo izvirajo iz stratigrafskih kontekstov na hodni površini faze 4b.
Fig. 8.7: Typological chart of rim fragments that can be reliably placed into the stratigraphic contexts on the walking surface in phase 4b.



Sl. 8.8: Velikostni razredi odlomkov lončenine, ki zanesljivo izvirajo iz stratigrafskih kontekstov na hodni površini faze 4b.
Fig. 8.8: Size classes of pottery fragments that can be reliably placed into the stratigraphic contexts on the walking surface in phase 4b.

178, 184, 191, 197, 198, 200, 204, 211). 69 odlomkov ustij kaže pričakovan tipološki razpon. Malo je tipološko starejših enostavnih ustij (1D do 2G) na eni in tipološko mlajših širokih karnisnih ustij na drugi strani (10C, 10E). Približno dve tretjini, 65 odstotkov, ustij je značilnih za visoki srednji vek (*t. 15: 5, 7; t. 16: 6, 8, 9; t. 17: 1, 7*; *sl. 8.7*). Kot tipološko najmlajši element naj omenimo osamljen odlomek ustja pokrova, izdelan na hitrem lončarskem kolesu (*t. 21: 4*). Ker gre za edini primerek pokrova, pripisan tej fazi, ne moremo izključiti možnosti, da gre za vrinjeno oziroma infiltrirano mlajšo najdbo (za izraz prim. Harris 1989, 150).

Prevladujejo majhni in srednje veliki odlomki dolžine do 5 centimetrov (*sl. 8.8*). Takšne najdbe običajno interpretiramo kot ležeče na hodni površini ali kot drugotni odpad (Orton 1993, 216; Blackham 2000, 475–778; Macháček 2001, 13–15). Interpretacija obravnavanega stratigrafskega konteksta (*SE 1986/03, 1989/03, 1990/14, 1991/04, 1991/06, 1994/02*) kaže na prvo možnost. Plast namreč interpretiramo kot nastalo na hodni površini v času uporabe. Še več, plast priča o ne ravno skrbnih prebivalcih, ki tal niso pogosto čistili. Kar pa je pravzaprav ena temeljnih značilnosti življenja na gradu (Krahe 2002a, 99).

Po velikosti izstopajo najdbe iz južnega dela drugega palacija, dokumentirane ob vzhodnem zidu pod žganino (*SE 1991/06*; *sl. 8.9*), od koder izvira skoraj štiri petine velikih in vsi največji odlomki. Nekaj velikih odlomkov je tudi v neposredni bližini, prav tako dokumentiranih pod ostanki zoglenelih tramov (*SE 1990/19*; *sl. 8.9*). V tem primeru imamo po vsej verjetnosti opravka z najdbami v prvotni legi, na mestu uporabe. Velikost kosov priča, da ljudje ali živali niso hodili po njih in jih drobili. Na hodno površino so torej najverjetneje prišle šele v požaru.

Tipološki razpon tipov ustij vseh 137 opredeljivih odlomkov, ki jih lahko zanesljivo pripišemo stopnji 4b

burnt remains of the ground floor ceiling. The size of the shards proves that they were not trampled or walked upon and that they were therefore most likely documented *in situ* where they were shattered in the destructive fire.

The typological span of all 137 rim shards from phase 4b (*fig. 8.10*) is similar to the above mentioned shards deriving exclusively from the walking surface. This covers a typical range of High Medieval pottery. However, types 10A and 10B that do not appear before the mid 13th century stand out. The stratigraphic context indicates that the pots, to which these fragments belonged, were most likely used on the top floor of the building at the time of the fire.

On the other hand a range of found types (1D, 1F, 1H, 2C, 2F, 2G, 2H) are either very rare or not present at all in the 13th century. Therefore, these must have been introduced into the archaeological contexts at the end of the 12th or in the beginning of the 13th century. This interpretation is not in contradiction to the *terminus post quem* for the end of the use of the phase 4a walking surface, i.e. a 1180 silver coin.

Most of the shards (69 %) belong to the types (5D, 5E, 5G, 5H, 6E, 6F, 6G, 7C, 7E, 8C) that are typical for the 12th and 13th century. Regionally such pottery is typical for High Medieval Carniola and Carinthia and has numerous analogies in Bavaria, Styria and Moravia.

With these facts in mind it is time to turn to the problem of dating phase 4b. The pottery analysis points towards the 13th century, possibly the 2nd half. None of the metal finds that could be stratigraphically placed in phase 4b could be precisely dated. The most promising seems to be the datation of the keys found in the inner bailey (*t. 2: 1, 2, 9*) that could have all been in use also in the 13th century.

A *terminus post quem* for phase 4b is the often mentioned silver coin of Eberhardt II forged around 1180. Next

(*sl. 8.10*), je podoben kot pri lončenini s hodne površine. Opraviti imamo s tipičnim naborom visokosrednjeveške lončenine. Pomenljiva je prisotnost tipov 10A in 10B, ki se pred sredino 13. stoletja skorajda ne pojavljajo. Posodi, h katerima sodita ta odlomka, sta bili najverjetneje v uporabi v enem višjih nadstropij grajskega palacija v času pred požarom.

Na drugi strani je prisotna cela vrsta tipov (1D, 1F, 1H, 2C, 2F, 2G, 2H), ki se v 13. stoletju pojavljajo zelo redko ali pa sploh ne. Ti – plast na estrihu (*SE 1986/03 ...*) – so prišli v arheološki zapis ob koncu 12. ali v prvi polovici 13. stoletja. Takšna interpretacija je skladna s terminusom post quem za prenehanje uporabe hodne površine predhodne faze 4a, novcem, kovanim okrog leta 1180.

Večino odlomkov, 69 odstotkov, pripada tipom, značilnim za 12. in 13. stoletje (5D, 5E, 5G, 5H, 6E, 6F, 6G, 7C, 7E, 8C). V širšem prostoru je takšno gradivo značilno za visokosrednjeveško Kranjsko in Koroško, primerjave pa najdemo še na območju Bavarske, avstrijske Štajerske in Moravske.

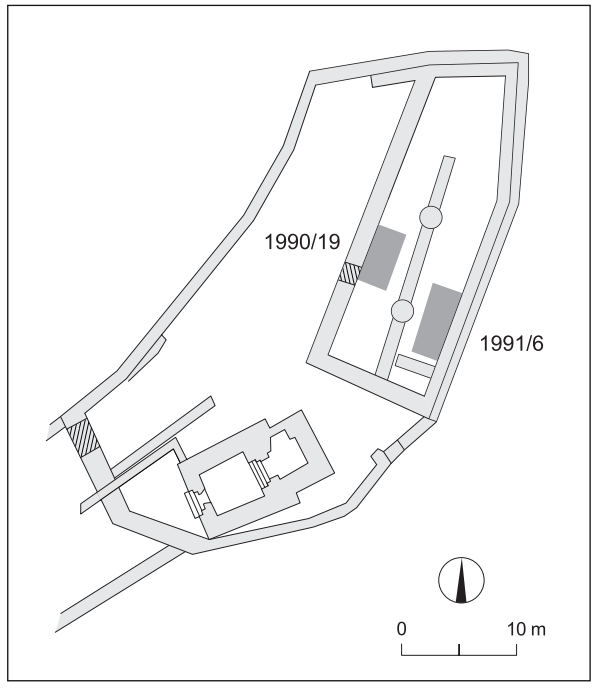
Na tem mestu se pomudimo pri problematičnem datiranju faze 4b. Analiza lončenine torej kaže na 13. stoletje, najverjetneje njegovo drugo polovico. Med stratigrafsko opredeljenimi kovinskimi najdbami ne najdemo časovno ožje opredeljivih predmetov. Še najoprijemljivejša je datacija ključev, najdenih *in situ*. Vsi trije ključi (*t. 2: 1, 2, 9*) bi lahko bili hkrati v uporabi v 13. stoletju.

Zanesljiv *terminus post quem* faze 4b je breški pfening Eberharta II., kovan okoli leta 1180, najden na hodni površini starejše faze 4a. Na tlaku faze 4b, vendar v predgradju ob stolpu, je bil najden novec kostanjeviške kovnice, kovan med letoma 1250 in 1280. Ta novec torej štejemo za *terminus ante quem* začetka faze 4b. Isti novec je tudi *terminus post quem* za zadnjo uporabo v tej fazi in s tem za fazo 4c, toda le za predgradje.

Na isti čas kažejo tudi pisni viri, s pomočjo katerih lahko dobro opredelimo uničujoč požar, ki razmejuje fazi 4b in 4c. *Terminus post quem* predstavlja listina iz leta 1248, podpisana v grajski kapeli. *Terminus ante quem* predstavlja leto 1444, ko se grad omenja kot že opuščen, *ain öds haws* (glej poglavje 2.5). Vendar se *terminus ante quem* nikoli ne nanaša neposredno na grajsko jedro. Tako podpis listine v kapeli kot novec ob stolpu neposredno kažeta le na uporabo predgradja in kapele. Vendar primera, ko bi na pogoreli polovici prestižnega gradu prebivalci ne počistili niti ruševin, hkrati pa bi drugi del služil kot regionalno upravno središče, v Evropi ne poznamo.

Ob teh podatkih je rezultat datacije zoglenelega žitnega zrna s C14 nekoliko presenetljiv, saj je najverjetnejša datacija med letoma 1031 in 1188[1]. Ta pa je skoraj stoletje starejša od pričakovane. Datirano zrno izvira iz

[1] Leibnitz-Labor für Altersbestimmung und Isotopenforschung, vzorec KIA32969. Datiranje Sigma 2 cal. AD 1031 - 1164 (verjetnost 88.7 %) ali 1167 - 1188 (verjetnost 6.7 %).



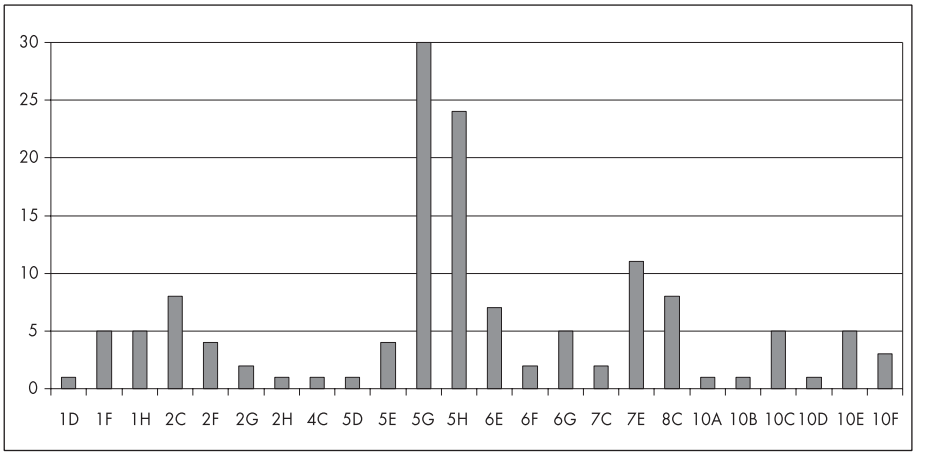
Sl. 8.9: Mesti velikih in največjih odlomkov lončenine, ki zanesljivo izvirajo iz stratigrafskih kontekstov na hodni površini faze 4b.
Fig. 8.9: The locations of the large and largest pottery fragments that can be reliably placed into the stratigraphic contexts on the walking surface in phase 4b.

to the tower, on the phase 4b outer bailey pavement, a coin forged between 1250 and 1280 in Kostanjevica was found. This coin serves as the *terminus ante quem* for the beginning of phase 4b as well as the *terminus post quem* for the beginning of phase 4c in the outer bailey.

The analysis of the written sources brings us to a similar conclusion (especially as regards the fire that destroyed the inner castle and represents a break between phases 4b and 4c). The t*erminus post quem* for this event is a document from 1250 that was written in the Mali grad chapel. The t*erminus ante quem* is the year 1444 when the castle was already deserted (see chapter 2.5). However, this *terminus ante quem* is never directly connected to the inner castle, i.e. the 2nd palatium and the inner bailey. The document from 1250 and the coin forged between 1250 and 1280 are specifically connected to the chapel and the outer bailey respectively. However, there is no known case in Europe where half of the castle (of regional importance) would burn down and not even the rubble would be cleared while the other half would remain in undiminished use.

All of the above indicates that phase 4b lasted throughout most of the 13th century, which is why the C14 dating of a wheat grain with the span from 1031 to 1188[1] is so surprising. That is almost a century older than expected!

[1] Leibnitz-Labor für Altersbestimmung und Isotopenforschung, sample KIA32969. Sigma 2 cal. AD 1031 - 1164 (probability 88.7 %) or 1167 - 1188 (probability 6.7 %).



Sl. 8.10:. Preglednica zastopanosti tipov odlomkov ustij faze 4b.
Fig. 8.10: Chart showing the representation of types of rim fragments from phase 4b.

15-gramskega vzorca brez najdiščnih podatkov. Vzorec je bil vzet tistega leta, ko so izkopavalci dokumentirali večkrat omenjenih 5 kupov zoglenelega žita iz prvega nadstropja grajskega palacija faze 4b. Tudi vrste žit so iste. Kljub temu ne moremo zanesljivo ugotoviti, kje je bil vzet vzorec. Pri tem pomislimo na primer modernega obnavljanja škofjeloške mestne kašče, kjer so med podnimi deskami našli precej žitnega zrnja, čeprav tam že vsaj stoletje nihče ni hranil žita (ustna informacija A. Pleterski).

Kljub temu, da dandanes ne gre dvomiti o izvidih datacij s C14, je malograjski primer eden tistih, kjer samo ta datacija ne poenostavi interpretacije. Prej nasprotno. V tem primeru odtehtajo argumenti pisnih virov in novčnih datacij, zato lahko s precejšnjo zanesljivostjo postavimo trajanje faze 4b v večji del 13. stoletja.

8.5. POZNOSREDNJEVEŠKA FAZA 4C

Kot fazo 4c smo označili dobo, ko prostor grajskega jedra lahko slikovito opišemo kot razvaline. Grad se je začel rušiti že med samim požarom. V osrednjem delu drugega palacija leži ruševina na estrihu, prekriva jo žganina, ki se ponekod zajeda med ruševinske kamne (*SE 1991/08*), kot je stanje opisal izkopavalec. Večinoma pa so se stene podrle v poznejših desetletjih in verjetno stoletjih. Najdbe faze 4b kažejo, da so objekti pogoreli ob koncu 13. stoletja. Na ruševinah se je sčasoma razvila plast humusa (*SE 1990/20–21, 1991/09, 1994/07*), ki označuje začetek naslednje, 5 faze.

Zelo verjetno v fazo 4c sodi puščična ost na prostoru drugega palacija (*t. 5: 13*; *sl. 8.13*:1). Zanesljivo pa vanjo lahko umestimo le tri stratigrafske enote iz izkopavalnih sezon 1991 (*SE 1991/08*) in 1994 (*1994/04–05*). Glavni razlog za to je izkopavalna metoda, izbrana okoliščinam primerno, saj so bile vse plasti nad žganino razen naštetih odstranjene enotno.

The grain derives from a 15 gram sample without appurtenant documentation apart from the year of discovery. The year, 1991, was the same year in which the oft mentioned 5 piles of carbonised food grain from the 1st floor of 2nd palatium in phase 4b were documented. The plants to which the seeds belong are the same. The circumstantial evidence points towards the grain from phase 4b; however there is no direct evidence. Even if the grain belongs to the phase 4b granary, one has to keep in mind the examples where a substantial amount of cereals was found among the floor boards of a Medieval town granary building, even though the building ceased to be used as a granary centuries ago, e.g. the Škofja Loka town granary (A. Pleterski, oral information).

Although nobody doubts in the exactness of C14 dating the presented case is one of many in which C14 dating alone does not simplify the task. Instead, it only makes the dating process more complicated. We believe that in the Mali grad case the firm evidence from written sources and the coin dating prevails over the C14 dating of a poorly documented sample. Therefore, the evidence for dating phase 4b into the 13th century is persuasive.

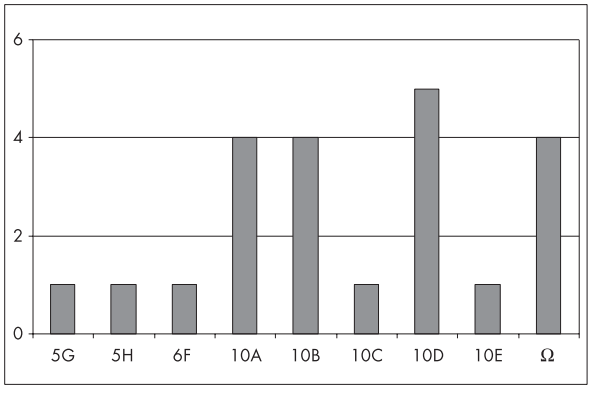
8.5. LATE MEDIEVAL PHASE 4C

Phase 4b is comprised of archaeological remains from a period in which the site can be somewhat poetically described as castle ruins. Within the central area of the 2nd palatium some building stones were found on the paved floor covered with the burnt layer (*SU 1991/08*). Even though the castle begun to crumble during the fire most of the walls crumbled during the decades and centuries to come. On top of the ruins a layer of humus (*SE 1990/20–21, 1991/09, 1994/07*) that signifies the break between phases 4b and 5 began to develop.

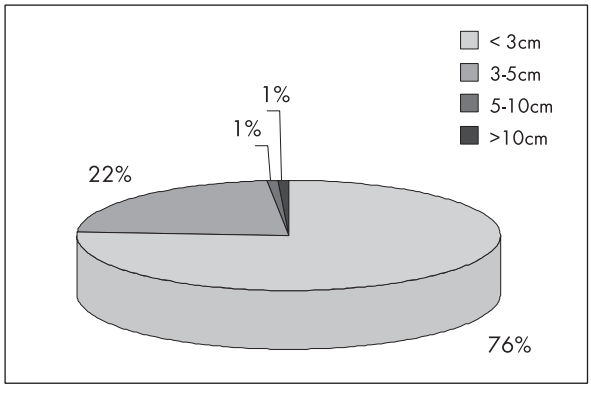
Na omejenem prostoru med južnim zidom drugega palacija in severnim zidom kapele (*sl. 8.13*) so najdbe dokumentirali tako, da jih lahko zanesljivo pripišemo ruševinam (*SE 1991/08*). Med te najdbe sodi konjska brzda (*t. 3: 2*; *sl. 8.13*) in 469 odlomkov lončenine, med katerimi je 22 odlomkov ustij. Trije pripadajo tipom, značilnim za visoki srednji vek, ki se po koncu 13. stoletja praviloma ne pojavljajo več (*sl. 8.11*: 5G, 5H, 6F; *8: 14*). To si lahko razlagamo na dva načina. Lončenina je lahko zašla med ruševine v tistih delih poslopja, ki so se rušili že med požarom. Iste odlomke pa lahko interpretiramo tudi kot ostanke dejavnosti, ki so potekale kmalu po požaru ob koncu 13. stoletja.

Preostale odlomke lahko opišemo kot poznosrednjeveške in so značilni za 14. in 15. stoletje. Enako velja za pokrove posod (*t. 31: 7, 9, 11*; *sl. 8.11*: "Ω"), ki se pojavljajo od druge polovice 14., predvsem pa od 15. stoletja dalje.

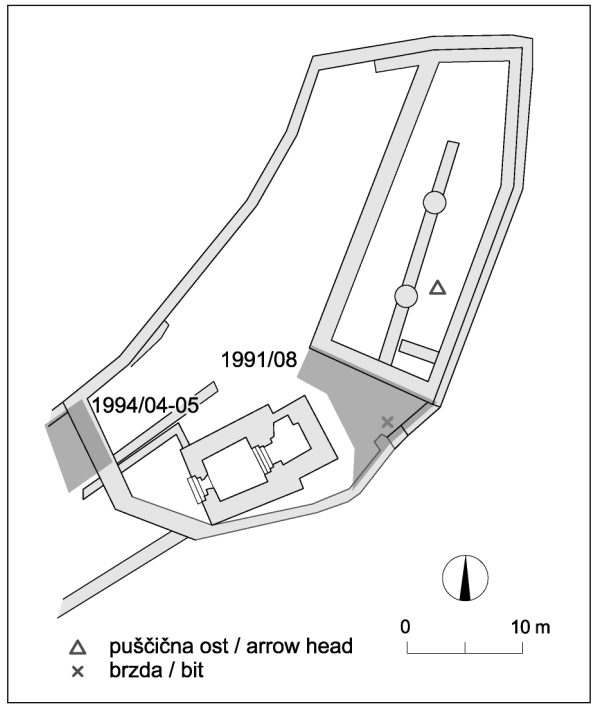
Pri interpretaciji si lahko zopet pomagamo s tafonomijo (*sl. 8.12*). Več kot tri četrtine odlomkov sodi med zelo majhne, večina ostalih med majhne. Takšen sestav najdb



Sl. 8.11: Preglednica zastopanosti tipov odlomkov ustij iz ruševin (*SE 1991/08*) faze 4c.
Fig. 8.11: Chart showing the representation of types of rim fragments from the ruins (*SU 1991/08*) of phase 4c.



Sl. 8.12: Velikostni razredi odlomkov lončenine iz ruševin (*SE 1991/08*) faze 4c.
Fig. 8.12: Size classes of pottery fragments from the ruins (*SU 1991/08*) from phase 4c.



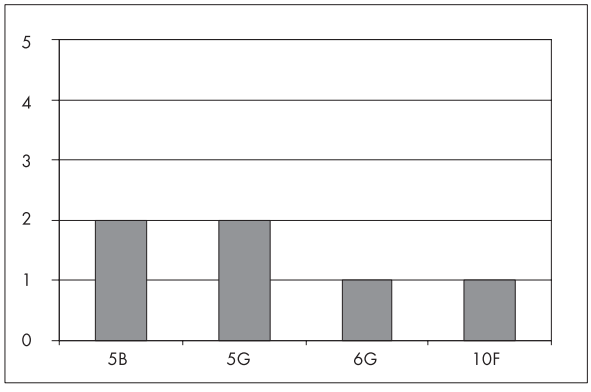
Sl. 8.13: Mesti stratigrafskih enot *SE 1991/08* in *SE 1994/04-05*, ki so zanesljivo umeščene v fazo 4c ter najdb: puščična ost (*t. 5: 13*); brzda (*t. 4: 2*).
Fig. 8.13: The locations of the stratigraphic units *SU 1991/08* and *SU 1994/04-05* that can be reliably placed into phase 4c and finds: arrowhead (*t. 5: 13*); snaffle (*t. 4: 2*).

It is highly likely that the arrowhead (*t. 5: 13*; *fig. 8.13*) found in the 2nd palatium area belongs to this phase. Only three strathigraphic units belong to phase 4b (*SE 1991/08*, *1994/04–05*). The principal reason for this lies in the used excavation method. All ruins or layers of rubble were excavated as a single layer.

A horse's bit (*t. 3: 2*; *fig. 8.13*) was found within the layer of ruins (*SU 1991/08)* between the 2nd palatium and the chapel (*fig. 8.13*). 469 pottery shards and 22 rim shards were also found in the layer of ruins. Three of these belong amongst the rim types (*fig. 8.11*: 5G, 5H, 6F; *8.14*) that ceased to be used at the end of the 13th century. These could come from the rubble from the upper floors that also crumbled during the fire or they could be remnants of the activities that took place soon after the fire. A vast majority of the rim shards and pot lids (*t. 31: 7, 9, 11*; *fig. 8.11*: "Ω") are typical for the 14th and 15th century or later.

Once again taphonomy (*fig. 8.12*) can aid the interpretation. More that 3/4 of all shards are represented by very small fragments while the rest mainly fall within the small category. Therefore this can be interpreted as a secondary refuse, perhaps a kitchen refuse or similar.

Another area of phase 4c layers lies south of the wall that divides the inner and outer bailey (*fig. 8.13*: B). The two stratigraphic layers one on top of each other (*SU 1994/04* and *1994/05*) show that the building material



Sl. 8.14: Preglednica zastopanosti tipov odlomkov ustij iz ruševin (*SE 1994/04* in *1994/05*) faze 4c.
Fig. 8.14: A chart showing the representation of types of rim fragments from the ruins (*SU 1994/04* and *1994/05*) from phase 4c.

interpretiramo kot drugotni odpad, na primer smetišče anorganskih odpadkov.

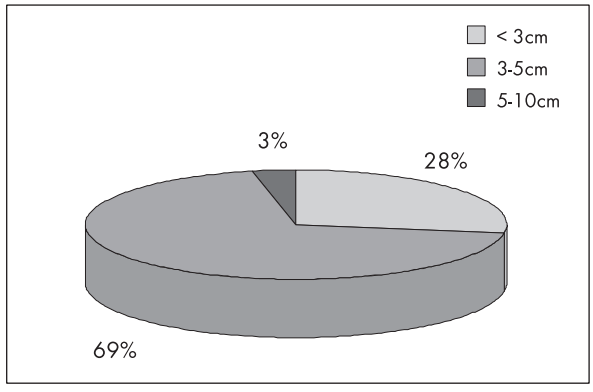
Drugo območje zanesljivo opredeljenih najdb te faze je na južni, zunanji strani južnega zidu grajskega jedra (*sl. 8.13*: B). Na tem mestu je bilo mogoče ločiti zaporedni stratigrafski enoti (*SE 1994/04* in *1994/05*). Opis starejše kaže na izrabljanje ruševin kot vira gradbenega materiala. Mlajša, izravnalna plast pa kaže na urejanje hodne površine neposredno na ruševinah.

Najdb iz obeh stratigrafskih enot ni bilo moč ločiti. Odlomki ustij so večinoma tipični visokosrednjeveški, kakršni se v 14. stoletju skorajda ne pojavljajo več (*sl. 8.14*). Med sicer ne ravno številnimi odlomki, skupaj 29, prevladujejo majhni, zelo majhnih je le približno četrtina (*sl. 8.15*). Glede na nastanek in gradivo ti stratigrafski enoti (*SE 1994/04* in *1994/05*) lahko interpretiramo kot prostor dejavnosti, povezanih najprej z izrabo ruševin kot virom gradbenega materiala in poznejšo pripravo hodne površine. Ena ali obe dejavnosti sta potekali že proti koncu 13. stoletja.

8.6. NOVOVEŠKA FAZA 5

Arheološki ostanki faze 5 na jugozahodnem delu malograjskega griča, predgradje faze 4b, so popolnoma drugačni od tistih na severovzhodnem delu, tj. prostoru grajskega jedra faze 4b. Mejnik predstavlja grajska kapela, ki obeležuje grič še danes.

Na jugozahodnem delu je stala zgodnjenovoveška mestna utrdba, ki jo prikazuje Valvazorjev bakrorez (*sl. 3.1*) in je Malemu gradu najverjetneje dala ime (glej poglavje 2.5). Zaradi nearheološkega izkopavanja tega dela razpolagamo večinoma zgolj s stavbnimi podatki in pisnimi ter slikovnimi viri. Trdnjava je bila postavljena najverjetneje v zadnji četrtini 15. stoletja kot del utrjevanja dežele v pričakovanju turških vpadov.



Sl. 8.15: Velikostni razredi odlomkov lončenine iz ruševin (*SE 1994/04* in *1994/05*) faze 4c.
Fig. 8.15: Size classes of pottery fragments from the phase 4c ruins (*SU 1994/04* and *1994/05*).

was re-used (the so called robber trench) and that the walking surface was set on top of the rubble.

The finds from the two layers could not be set apart. The rim shards are mainly High Medieval types that were not in use after the 13th century (*fig. 8.14*). Most of the 29 shards were found as small fragments, and only about one quarter were categorised as very small (*fig. 8.15*).

Taking into account the formation of these two layers and the recorded finds the only possible interpretation is that this was an activity area connected to the building material extraction and the preparation of the walking surface. One or both activities took place in the decades around 1300.

8.6. POST-MEDIEVAL PHASE 5

The inner bailey phase 5 archaeological evidence differs strongly from the outer bailey evidence for the same phase. The chapel (that remains the main feature of the Mali grad hill even today) represented the boundary between the two areas.

The former outer bailey included a Post-medieval fort (as represented on the 17th century Valvasor's copper engraving, *fig. 3.1*, see chapter 2.5). Due to the non-archaeological nature of excavation in this area only written and pictorial data prevail. The fort was probably built at the end of the 15th century as a part of an anti-Turk fortification.

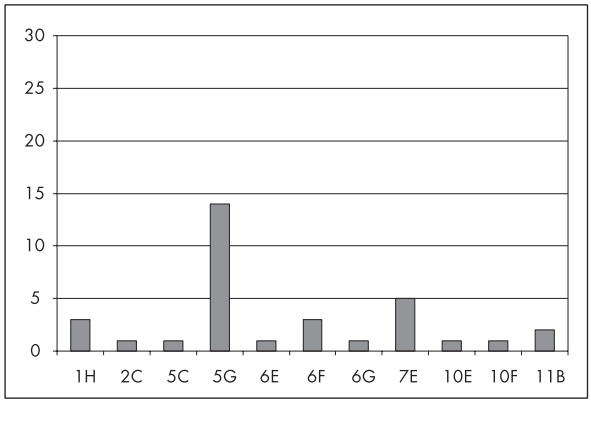
In this phase only two horse shoes (*t. 3: 6, 7*; *fig. 8.6*) intended for shoeing two different animals were documented. Their context is of special interest. They were found in the north-eastern corner of the Romanesque tower, covered with a levelling layer of yellowish clay (Sagadin 1997a, 108). The description points towards an intentional positioning of these two objects: the intentionally chosen (**i**) objects were placed during the

V fazo 5 nam je uspelo umestiti le najdbi iz zahodnega dela gradu, podkvi (*t. 3: 6, 7*; *sl. 8.6*), ki sta bili po velikosti sodeč namenjeni podkovanju različnih živali. Zanimivi sta zaradi konteksta, ki ga je izkopavalec opisal takole: " ... *v severovzhodnem vogalu bergfrida, pod plastjo rumene ilovice, ki je prekrivala izravnane ruševine* ..." (Sagadin 1997a, 108). Ta opis vsebuje kar nekaj elementov, ki kažejo, da sta bili podkvi odloženi namensko. Namensko izbrana (**i**) predmeta sta bila med pripravljalnimi deli (**ii**) za gradnjo nove stavbe položena na skrbno izbrano mesto (**iii**). Da gre za namensko izbrana predmeta (**i**), priča različna velikost neobrabljenih podkev. Različna velikost verjetno nima posebnega pomena. Kaže pa, da predmeta nista bila prvotno izbrana za podkovanje enega konja in odložena na tem mestu le po naključju. Stratigrafski položaj – nad izravnanimi ruševinami in pod plastjo ilovice, ki dokončno prekrije staro – kaže, da sta bila predmeta položena med samimi deli (**ii**). In ne nazadnje, mesto najdbe (**iii**), 'četrti vogal', kaže na skrbno izbiro kraja.

Pojasniti je treba tudi stratigrafsko umestitev. Izkopavalec (Sagadin 1997a, 108) ju povezuje s stolpom, ki je bil del gradu faze 4b. Toda stratigrafski položaj najdbi jasno opredeljuje v čas postavljanja nove zgradbe na ruševinah starejše. Ker na tem mestu ni kamnite stavbe, starejše od stolpa faze 4b, sodi odložitev podkev v čas izgradnje stolpa mestne utrdbe, torej v fazo 5. Podkvi, ki sta žal časovno slabo opredeljivi, predstavljata *terminus post quem* postavitve stolpa mestne utrdbe.

V fazo 5 najverjetneje sodijo tudi najdbe pečnic (*t. 24*) in namizne lončenine (*sl. 6.8*). Ker so bile plasti faz 4c in 5 izkopavane hkrati, tega ne moremo potrditi s stratigrafskim kontekstom najdb, vendar je časovna opredelitev najdb v konec 15. in 16. stoletje zanesljiva.

Na severnem delu, torej na prostoru prvotnega gradu, fazo 5 predstavljajo najmlajše dokumentirane dejavnosti, katerih začetek označuje kompaktna rjava plast (*SE 1990/20*). To interpretiramo kot t. i. pokopana tla, torej tla, nastala na ruševinah. Te so pozneje prekrili ("*pokopali*") z debelo plastjo humusa neznanega izvora (*SE 1990/21*). Debelina te plasti do pol metra priča, da humus ni avtohtonega nastanka in je bil najverjetneje prinesen od drugod.



Sl. 8.16: Preglednica zastopanosti tipov odlomkov ustij iz plasti pokopanih tal (1990/20) faze 5.
Fig. 8.16: A chart showing the representation of types of rim fragments from the phase 5 burried soil (1990/20).

preparation works for the erection of the new building (**ii**) on a carefully selected spot (**iii**). The fact that these two objects were intentionally chosen (**i**) is shown by the different size of the unused objects. The size itself was probably not important, but it indicated that the objects were not brought to this spot in order to shoe a horse. The stratigraphic position above the levelled old wall and bellow the additional levelling layer shows that the objects were placed there during the building works (**ii**). The placement into the corner clearly indicates intentional placement (**iii**).

The stratigraphic position of the horse shoes needs additional explanation since they were originally (Sagadin 1997a, 108) considered to belong to the phase 4b tower. The original explanation was based on the position bellow the levelling layer of clay. We have shown that they were placed in the corner at the time of the building works (in an already existing building). However, since there is no evidence of a stone building that would pre-date the phase 4b tower, these works could have taken place only when the phase 4b tower (or its remains) was reworked during phase 5. The horse shoes can be considered as a *terminus post quem* for the phase 5 fort. Unfortunately, they cannot be precisely dated.

As they are dated into the 15th or 16th century, the stove tiles (*t. 24*) and ceramic tableware (*fig. 6.8*) typologically belong to phase 5. Since phase 4c and 5 layers were excavated as a single unit this cannot be stratigraphically confirmed.

The archaeological record of the phase 5 inner castle area is represented by a layer of brown compacted soil (*SU 1990/20*). This was interpreted as so-called buried humified soil that formed on top of the castle ruins. Later this layer was covered, i.e. buried, with a thick layer of allochton humus.

The dating of the inner castle phase 5 is best determined with the aid of pictorial material. This area was depicted in 1776 (*fig. 3.2*) in a more or less similar condition as it was prior to the late 20th century restoration works: the only maintained building was the chapel, the rest was in ruins, covered in bushes (that could only have been rooted in the buried soil layer). This is the *terminus ante quem* for phase 5 in the inner castle area. The 1676 copper engraving (*fig. 3.1*) shows a similar picture, with the difference being that the details of the vegetation are not recognisable.

The pottery shards found in the buried soil layer seem to be surprising at first glance. The typological range (*fig. 8.10*) is almost the same as in phase 4b - with a single exception (11B). However, this is merely a result

O časovni umestitvi lahko najbolje sklepamo na podlagi slikovnih virov. Prostor Malega gradu na votivni freski iz Zakala iz leta 1776 je prikazan v skoraj enakem stanju, v kakršnem je grad dočakal 20. stoletje (*sl. 3.2*). Edini vzdrževan objekt je kapela, ruševine prekriva vegetacija. Datacija votivne slike torej predstavlja zanesljiv *terminus ante quem* za fazo 5. Tudi stanje na stoletje starejšem Valvazorjevem bakrorezu (*sl. 3.1*) je zelo podobno, a podrobnosti v zvezi z vegetacijo niso prepoznavne.

Lončenina iz pokopanih tal (*SE 1990/20*) kaže na prvi pogled presenetljivo podobo. Tipološki razpon (*sl. 8.16*) je z izjemo ustja tipa 11B enak kot v fazi 4b (*sl. 8.10*). Pojasnilo najdemo v izkopavalni metodi. Gradivo iz te stratigrafske enote namreč predstavljajo izključno odlomki ustij. To je znak izbora gradiva, opravljenega na kraju samem. Skupaj z odlomki ostenij so bili verjetno izločeni tudi vsi mlajši, predvsem glazirani odlomki. Spomnimo, osnovni namen izkopavanj je bil dokumentirati morebitno predgrajsko poselitev. Kljub vsemu prisotnost starejših odlomkov potrjuje interpretacijo nastanka stratigrafske enote, tj. z naravnimi procesi humifikacije na mestu samem.

V fazo 5 sodi tudi železna otka (*t. 3: 3*), vendar stratigrafske enote ni mogoče natančno opredeliti. Vsekakor to pomeni, da gre za novoveški predmet, kar pojasni težave pri opredeljevanju na podlagi srednjeveških primerjav (glej poglavje 5.3).

8.7. MATERIALNA KULTURA PLEMSTVA V 13. STOLETJU

Naslov Materialna kultura plemstva se odkrito spogleduje z delom Christofa Krauskopfa (2005), v katerem je avtor primerjal materialno kulturo devetnajstih gradov iz Švice in jugozahodne Nemčije na eni ter srednje Nemčije na drugi strani. Razvil je metodo klasifikacije kovinskih predmetov v 47 skupin (Krauskopf 2005, 50–105), s katero lahko zaznamo družbene razlike med prebivalci gradov. Z uporabo te metode smo želeli opredeliti družbeni status prebivalcev Malega gradu.

Ker v fazo 4a nismo mogli zanesljivo opredeliti nobenega predmeta, smo analizo opravili le za predmete, ki zanesljivo sodijo v fazo 4b. Do tega mesta je analiza pokazala, da je faza 4b obsegala večji del 13. stoletja, pozneje pa naselbinskih dejavnosti na območju grajskega jedra ni bilo. Vendar skoraj vse kovinske najdbe izvirajo iz konca faze 4b, nekako iz druge polovice 13. stoletja. V analizo bomo pritegnili tudi nekatere predmete, katerih kontekst ni zanesljiv. Vendar bomo pri interpretaciji upoštevali zanesljivost konteksta.

Že prvi pogled na razporeditev najdb po namembnostnih skupinah (*sl. 8.17*) pokaže, da na Malem gradu prevladujejo predmeti *običajne opreme*. Zanesljivo opredeljenih *izjemnih prestižnih predmetov* ni. Namembnost zlatarskega orodja in dela kovinskega svečnika namreč ni zanesljivo opredeljena. Tudi večina *pogostih prestižnih*

of the excavation method, in which only rim shards were preserved. It is probably safe to assume that other Post-medieval pottery fragments (at the time of excavation post Early Medieval periods were not considered to be a part of archaeology) were also discarded. The presence of High medieval shards confirms the interpretation that this soil (*SE 1990/20*) was formed as a part of the humification process.

The plough-staff (*t. 3: 3*) belongs to phase 5. Since this signifies that the object is Post-medieval in origin the problems with finding Medieval analogies (see chapter 5.3) is explained.

8.7. THE MATERIAL CULTURE OF THE 13TH CENTURY NOBILITY

The title *The material culture of the 13th century nobility* is taken from the research by Christof Krauskopf (2005). In his study he compared the material culture from 19 castles in Switzerland, south-western and central Germany. He developed a method that enabled him to detect social differences among the castle residents by comparing metal finds. In order to achieve this the small finds were classified into 47 groups (Krauskopf 2005, 50–105). We have applied this methodology to the Mali grad metal finds.

This was only performed for the phase 4b finds since there was not enough material from phase 4a to achieve a valid result. The analysis showed that phase 4b dates to the 13th century. Due to the longevity of this phase and the involved stratigraphic processes it is highly likely that most of the finds derive from the second half of the 13th century. The artefacts that belong only typologically into phase 4b will also be used in the analysis, however this will be taken into consideration at the interpretation.

It is quite clear that the majority of the Mali grad metal finds belong to the *Common fittings* group (*fig. 8.17*). There are no artefacts from the *Exceptional prestigious fittings* group that would be categorised with a high degree of certainty since the objects in question are uncertainly defined as a goldsmith's tool and fragments of a candleholder. Similar applies to the objects in the *Common prestigious fittings* since both - the tallow lamps and rumbler bell (possible indirect evidence of prestigious hunting with hawks) - are unstratified finds. The remnants of deer bones and hunting arrowheads confirm large game hunting. The silver coins that stratigraphically belong to phase 4b are also considered to be a part of the *Common prestigious fittings* group.

These results are therefore a clear indicator that when compared to Swiss and German castles Mali grad was poorly or rather non-prestigiously fitted. The only exceptions are the parts of the metal cauldron that was considered to be a fitting found only in prestigious castles in the 13th century (Krauskopf 2005, 69–70).

predmetov nima znanega konteksta. Tako nobena izmed lončenih svetilk kot tudi ne kraguljček, predmet, ki bi lahko kazal tudi na prestižni lov z ujedami. Prisotnost kostnih ostankov jelenjadi in lovskih puščičnih osti potrjuje lov na visoko divjad. Opredelitev novčnih najdb je zanesljiva. Izmed dveh srebrnikov iz faze 4b je en izgubljen, drugi pa je bil skovan med letoma 1250 in 1280.

Pravo presenečenje pa je, da imamo – upoštevaje tudi vprašljive prestižne predmete – v primerjavi z analizo švicarskih in nemških gradov opraviti s slabo oziroma neprestižno opremljenim gradom. Edina izjema je oprema kovinskega kotla za kuhanje, kakršnega je v 13. stoletju najti le na prestižnih gradovih (Krauskopf 2005, 69–70).

Možna interpretacija bi bila ta, da je prebivalcem gradu uspelo rešiti najvrednejše predmete pred požarom. Proti tej možnosti govori število predmetov.

A possible interpretation could be that the castle residents managed to save the most valuable objects from the fire. The number of finds speaks against this interpretation. In Krauskopf's study between 11 and 67 objects were available for each castle. The 28 phase 4b objects from Mali grad are therefore average as regards the amount. If one also considers the typologically defined artefacts, the total number of 54 is one of the highest amongst the considered castles. The number of metal finds from Mali grad therefore suggests that all metal fittings were preserved.

The resulting situation suggests a dichotomy between the material culture, i.e. small metal finds, and the architecture (see chapter 4.2.8). Non-prestigious material culture versus prestigious architecture. The discussion presented in the final chapter will take into consideration the changes that appeared during phase 4b.

	Namembnostna skupina / Functional group	Dejavnost / Activities		Število / Count
1	igralni žetoni, figurice / game tokens, figurines	igra in zabava / leisure and fun	Izjemna prestižna oprema / Exceptional prestigious fittings	
2	kovinski svečniki / metal candleholders	razsvetljava / lightning		?2
3	nakit iz plemenitih kovin / precious metal jewellery	oblačila in nakit / dress and jewellery		
4	metalurgija / metallurgy	rokodelstvo / handicraft		?1
5	zastekljena okna / glassed windows	okna in vrata / windows and doors		
6	tlakovci / paving tiles	stavbni elementi / building elements		
7	branje, pisanje / reading, writing	izobraževanje / education		
8	obrambna oborožitev / defense armour	oborožitev / arms		
9	posebno namizno posodje / extraordinary tableware	namizno posodje / table ware		
10	okna / windows	okna in vrata / windows and doors		
11	deli opreme iz plemenitih kovin / precious metal equipment	pohištvo / furniture		
12	obdelava kovin / smiting	rokodelstvo / handicraft		
13	železne svetilke / iron lamps	razsvetljava / lightning		
14	konjska oprava iz barvnih kovin / bronze alloy horse harness	konjska oprava / horse equipment		
15	obdelava kamna / stone cutting	rokodelstvo / handicraft	Izjemna prestižna oprema / Exceptional prestigious fittings	
16	gospodinjski pripomočki iz kamna / stone housekeeping utensils	gospodinjski pripomočki / household utensils		
17	kuhinjski pripomočki iz kamna / stone kitchen utensils	kuhinjski pripomočki / kitchen utensils		0 (8)
18	nakit iz stekla / glass jewellery	oblačila in nakit / dress and jewellery		
19	lončene svetilke / ceramic ware lamps	razsvetljava / lightning		
20	živinoreja / cattle breeding	kmetijstvo / agriculture		
21	deli oblačil iz plemenitih kovin / precious metal dress accessories	oblačila in nakit / dress and jewellery		0 (1)
22	konjska oprava iz plemenitih kovin / precious metal horse harness	konjska oprava / horse equipment		2
23	lov / hunt	lov / hunting		
24	otroške igrače / children toys	otroške igrače / childrens toys		
25	novci / coins	novci / coins		
26	nakit iz barvnih kovin / bronze alloy jewellery	oblačila in nakit / dress and jewellery		
27	nakit iz kosti, lončenine / jewellery made of bone or ceramic	oblačila in nakit / dress and jewellery		

28	obdelava kosti / bone working	rokodelstvo / handicraft	Običajna oprema / Common fittings	
29	kuhinjski pripomočki iz barv. kovin / bronze alloy household utensils	kuhinjski pripomočki / kitchen utensils		
30	gospodinjski pripomočki iz železa / iron household utensils	gospodinjski pripomočki / household utensils		
31	igra in zabava / leisure and fun	igra in zabava / leisure and fun		
32	predelava usnja, tekstila / leather and textile working	rokodelstvo / handicraft		
33	deli opreme iz barvnih kovin / bronze alloy equipment	pohištvo / furniture		1
34	steklene posode / glassware	namizno posodje / table ware		2
35	deli oblačil iz barv. kovin / bronze alloy dress accessories	oblačila in nakit / dress and jewellery		
36	kuhinjski pripomočki iz železa / iron kitchen utensils	kuhinjski pripomočki / kitchen utensils		1 1
37	železni stavbni elementi / iron elements of building	stavbni elementi / building elements		1
38	hladno orožje / non-gunpowder weaponry	oborožitev / arms		
39	poljedelstvo / agriculture	kmetijstvo / agriculture		0 (7)
40	obdelava lesa / woodworking	rokodelstvo / handicraft		3 (2)
41	deli opreme iz železa / iron equipment	pohištvo / furniture		
42	noži / knives	gospodinjski pripomočki / household utensils		13 ?1
43	konjska oprava iz železa / iron horse harness	konjska oprava / horse equipment		2 (4)
44	podkve / horse shoes	konjska oprava / horse equipment		
45	sestavni deli vrat / elements of doors	okna in vrata / windows and doors		
46	deli oblačil iz železa / iron dress accessories	oblačila in nakit / dress and jewellery		
47	strelno orožje / fire arms	oborožitev / arms		
	skupno število / total sum			28 (26)

Sl. 8.17: Razporeditev najdb, razvrščenih v namembnostne skupine. Vprašaj pred številko pomeni, da namembnost predmeta ni zanesljivo opredeljena. Številke v oklepaju pomenijo predmete brez zanesljivega konteksta (vir: Krauskopf 2005, Abb. 24).
Fig. 8.17: The finds according to the functional groups. The questionmark signifies that the placement in space of that particular object is not certain. The numbers in the brackets signify the objects with uncertain context (source: Krauskopf 2005, Abb. 24).

Krauskopf je v svoji študiji zajel od 11 do 67 predmetov na posameznem gradu. 28 zanesljivo opredeljenih predmetov na Malem gradu bi tako že sodilo v povprečje. 54 predmetov, kolikor je vseh, pa bi sodilo celo med najštevilčnejše nabore. Iz tega sklepamo, da številčna zastopanost kovinskih predmetov v arheološkem zapisu razmeroma dobro odraža kovinsko opremo Malega gradu tik pred požarom.

Opraviti imamo torej s položajem, ko materialna kultura kaže obratno sliko kot analiza arhitekturnih in predvsem stavbnih elementov (glej poglavje 4.2.8). Odgovor najverjetneje tiči v spremembah, ki so se dogodile med začetkom in koncem faze 4b, o čemer bo govor v sklepnem poglavju.

9. RAZPRAVA O ŽIVLJENJU NA MALOGRAJSKEM GRIČU

9. LIFE ON THE MALI GRAD HILL: A DISCUSSION

9.1. MALI GRAD V PROSTORU

Razumevanje preteklosti skozi prizmo preteklih pokrajin je pogosta tema historičnih ved. V arheologiji trenutno najbolj izpostavljeni pogledi temeljijo bodisi na procesni bodisi na poprocesni arheologiji. Prvi na bogati zgodovini raziskav predvsem t. i. mediteranske arheologije in ameriške nove arheologije, drugi na britansko-skandinavskem fenomenološkem pristopu. Pri tem se moramo zavedati, da je malone toliko pogledov na pretekle pokrajine, kot je raziskovalcev (Launaro 2004; prim. Novaković 2003, 191–202; Olsen 2002, 63–64).

Na tem mestu ne želimo ponavljati razprav o odnosu med človekom in prostorom ter GIS-orodjih, s katerimi lahko te odnose preučujemo (za pregled do 2000 glej Kvamme et al. 1997; Church et al. 2000; za pregled novejših študij glej Doerr, Sarris 2003; Fischer Ausserer 2004). Uporabili smo le nekaj osnovnih metod. S tem smo na eni strani dobili odgovor na konkretna vprašanja, na drugi pa smo želeli pokazati zmožnosti tovrstnih študij pri preučevanju gradov.

Z analizo vidnosti z GIS-orodji določimo prostor, viden iz opazovalnega mesta. Skupek vseh celic, ki so v liniji vidnosti, imenujemo vidno polje (angl. *Viewshed*; prim. McCoy idr. 2001, 160). Ta metoda je bila že zgodaj uporabljena v arheologiji (Gaffney, Stančič 1991, 75–78). Z njo bomo modelirali prostor, iz katerega je bil viden grad, ali prostor, ki je bil viden z gradu.

Druga metoda, ki smo jo uporabili, je izračun gospodarskega zaledja (ang. *site catchment analysis*; za termin

9.1. MALI GRAD WITHIN THE LANDSCAPE

Understanding the past through the research of past landscapes is a reoccurring theme in historic research. The most common approaches used in archaeology nowadays are based on either processual or post-processual archaeology. The first draws from the abundant research in Mediterranean or New American Archaeology, while the latter relies mostly upon the British-Scandinavian phenomenological approach. However, one must be aware that there is almost as many views of past landscapes as there are researchers (Launaro 2004; cf.. Novaković 2003, 191–202; Olsen 2002, 63–64).

At this stage we will not enter the somewhat lively discussion on the relationship man - landscape and the GIS tools used to interpret this relationship (for an overview see Kvamme et al. 1997; Church et al. 2000; Doerr, Sarris 2003; Fischer Ausserer 2004) since only a few basic methods were used in this research. The twofold aim of this excursus is to obtain some concrete answers and show the possibilities offered to castle research when such an approach is used.

Viewshed analysis (cf. McCoy et al. 2001, 160) is a basic GIS tool that is used to determine the area visible from an observation point or a polygon. This method was among the first GIS applications used in archaeology (Gaffney, Stančič 1991, 75–78). In this study it will be used to model the area visible from the castle walls as well as area from which the castle was visible.

glej Dular, Tecco Hvala 2007; prim. Stančič, Gaffney 1991, 51; Novaković 2003, 117–118). Model so v 70. letih 20. stoletja vzpostavili predstavniki t. i. paleoekonomske šole iz Cambridgea. Gospodarsko zaledje je definirano kot območje, znotraj katerega je izkoriščanje naravnih virov ekonomsko upravičeno (Vita-Finzi, Higgs 1970). Še v istem desetletju so ameriški arheologi z empiričnimi preizkusi prvotno območje zaledja, 5 kilometrov oziroma uro hoda za poljedelske skupnosti, prepolovili (Novaković 2003, 117–118; glej tam navedeno literaturo). Konec 80. let preteklega stoletja so zamudno hojo v presekih nadomestile GIS-analize (npr. Stančič, Gaffney 1991, 51–60). Za spodnjo GIS-analizo smo uporabili lasten algoritem (Štular 2006a).

Izdelali smo tudi vektorske podatkovne sloje – pot, polje in meja – andeškega teritorialnega gospostva.

Kot izhodišče za pripravo sloja pot smo vzeli rekonstrukcijo poti v 14. stoletju (Kosi 1998, Priloga). Ker je ta izdelana v zelo velikem merilu, smo jo na odseku, ki nas zanima, nekoliko prilagodili. Na odseku od Save do Mengša smo pot prilagodili tako, da se izogiba poplavnemu območju Pšate in Kamniške Bistrice (prim. Štular 2002, 94–103 in sl. 24; glej tam navedeno literaturo). Od Mengša dalje smo sledili poti, kot je začrtana na franciscejskem katastru in jožefinskem vojaškem zemljevidu (Rajšp 1998, sekciji 176 in 177). Pri tem smo sledili izkušnjam retrogradne analize franciscejskega katastra v Blejskem kotu, ki kažejo, da se trasa poti v novem veku do sredine 19. stoletja skorajda ni spreminjala (Pleterski 1986, 119–122).

Kot polje smo označili sklenjene poljske površine, ki so na franciscejskem katastru označene kot najboljša kategorija. V ta namen je bilo treba zemljevid franciscejskega katastra uskladiti z uporabljenimi modernimi kartografskimi sloji, torej umestiti v prostor in razpačiti (prim. McCoy idr. 2001, 78–87). Teh sklenjenih poljskih površin najboljše kategorije ne smemo enačiti z rezultatom retrogradne analize franciscejskega katastra. Toda retrogradna analiza franciscejskega katastra Blejskega kota je pokazala, da so najstarejša srednjeveška polja brez izjeme nastajala na sklenjenih površinah zemlje najboljše kategorije (Pleterski 1986). Naš rezultat se ujema tudi z rezultatom metode kartiranja toponimov (Štular, Poglajen 2002), saj imata obe tako določeni poljski površini ledinsko ime polje. Mejo andeškega teritorialnega gospostva smo povzeli po Kosiju (Komac 2006, zemljevid 4).

Najprej nas je zanimalo vidno polje z Malega gradu v fazah 4a in 4b. Za opazovalno mesto smo za fazo 4a izbrali celotno obzidje, visoko 10 metrov. Nobena izmed znanih rekonstrukcij sicer ne predvideva obzidnega hodnika na celotnem obzidju. Toda za naš namen to ni pomembno, saj je razlika med opazovanjem z nekaj dobro izbranih mest ali s celotnega oboda obzidja v konkretnem primeru Malega gradu zanemarljiva. Tudi izbrana višina 10 metrov bi bila lahko sporna (prim. Krahe 2002a, 24–26), a na rezultat zaradi lege na malograjskem griču nima velikega vpliva.

The second method used was the *site catchment* calculation (cf. Stančič, Gaffney 1991, 51; Novaković 2003, 117–118). The theoretical model for this analysis was built in the 1970s by the members of the so called paleo-economical school from Cambridge. Site catchment is defined as an area within which the use of natural resources is economically justified (Vita-Finzi, Higgs 1970). Soon after the original study American archaeologists started to empirically test the hypothesis and the area of 5 kilometres (or one hour of walking) was cut in half for agricultural societies (Novaković 2003, 117–118; see cited literature). In the late 1980s the time consuming method of measuring the site catchment area by walking in straight lines was replaced by the GIS analysis (e.g. Stančič, Gaffney 1991, 51–60).

For the analysis showed in the continuation a new algorithm for calculating the distance walked within a given amount of time was developed (Štular 2006a).

Besides the geomorphologic data the somewhat self explanatory vector layers *paths*, *field* and *border* were also produced for the area. The first is based on a map of reconstructed 14th century paths (Kosi 1998, Priloga). Since this map is produced in a rather large scale the section of interest was slightly altered: the path between the river Sava and the town Mengeš was altered so that it avoids the floodplain (cf. Štular 2002, 94–103 and sl. 24; see cited literature). The path between Mengeš and Mali grad was altered so that it follows the roads as seen on the historical maps from the 18th and 19th century (Rajšp 1998, sections 176 in 177). This was based on the retro-analysis of the historical maps combined with historical and archaeological sources from the nearby Blejski kot. It seems that the paths there have not altered between Medieval times and the 19th century (Pleterski 1986, 119–122).

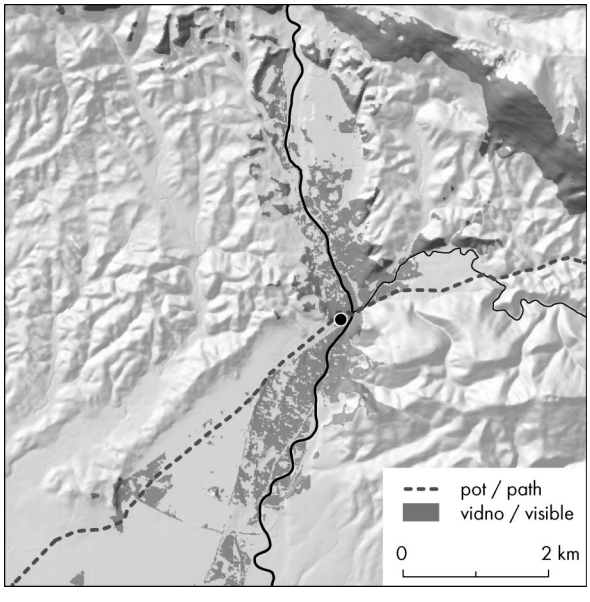
The vector layer *field* denotes all patches of fields categorised as *the best* arable land in the historical cadastre from the mid 19th century. The cadastral maps were georeferenced with this in mind (cf. McCoy idr. 2001, 78–87). This category is an approximation and not a precise representation of medieval fields. However, the above mentioned retro-analysis showed that the oldest medieval fields were placed into sizable patches of land categorized as *the best* in the historical cadastres (Pleterski 1986). The layer *field* corresponds to the results of another method, i.e. charting place-names (Štular, Poglajen 2002).

The layer *border* was adopted from the map of the Andechs' territory (Komac 2006, zemljevid 4).

The first analysis is the viewshed from Mali grad castle in phases 4a and 4b. The viewshed for phase 4a was calculated as seen from the entire castle walls at a height of 10 metres. None of the castle walls reconstruction shows walking ledges that would run along the entire wall. This is negligible as in this case the viewshed from a few well selected observation platforms was almost the same as from

Kot opazovalno mesto za izračun vidnega polja v fazi 4b smo izbrali stolp ob upoštevanju višine 15 metrov. Za to smo se odločili, ker je potek grajskega obzidja na območju gradu faze 4a v fazi 4b ostal nespremenjen. Torej vidno polje v fazi 4b ni nikjer manjše kot v fazi 4a. Povečanje pa smo pričakovali predvsem pri opazovanju z omenjenega stolpa, ki je bil zgrajen v fazi 4b.

Takoj je opazna razlika med vidnostjo v fazi 4a in fazi 4b (*sl. 9.1; sl. 9.3*). Vidnost severno od gradu je zaradi naštetih vzrokov nespremenjena. Razliko opazimo na jugu. Še posebej se zdi pomenljivo izključevanje vidnega polja faze 4a in poti južno od gradu, torej v smeri takratnih bližnjih poselitvenih središč Škofje Loke, Kranja in Ljubljane.



Sl. 9.1: Mali grad, vidno polje z obzidja faze 4a (vir za senčen relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Fig. 9.1: Mali grad, viewshed from the phase 4a wall (source for the shaded relief: DMV 12,5, November 2005 © Geodetska uprava Republike Slovenije).

Grad je torej v fazi 4a vizualno komuniciral predvsem z območjem proti severu. Ta vtis postane še močnejši, če upoštevamo samo vidnost prestižno grajenega dela zidu (*sl. 9.2*), ki je navzven kazal premožnost graditeljev (glej poglavji 4.2.1 in 4.2.3). Območje, na katerem je stalo v 17. stoletju obzidano mestno jedro (prim. *sl. 3.1*), je znotraj tega polja vidnosti. Tudi eden od dveh sklopov poljskih površin (*sl. 9.5*) je znotraj tega polja vidnosti. Takšen položaj gradu podpira domnevo o naselbini, sočasni fazi 4a na območju, ki je bilo pozneje varovano z mestnim obzidjem (za nasprotno mnenje prim. Šumi 1994, 103).

Zanimiva je tudi zmožnost gradu, da neposredno nadzira prostor s strelnim orožjem. Običajno se za uporabni doseg loka in samostrela navaja razdalja od 100 do 200 metrov (Odar 2003, 16–17; glej tam navedeno literaturo). Če merimo doseg 200 metrov s severovzhodne strani, ne pokrijemo niti celotne dolžine obzidja. Višina je tudi stvar debate, saj 10 metrov predstavlja maksimalno pričakovano višino (prim. Krahe 2002a, 24–26). Tudi zaradi specifične geomorfologije spremembe nekaj metrov skoraj nimajo vpliva na rezultat.

The viewshed in phase 4b was calculated from a southern tower at a supposed height of 15 metres. Since the northern castle walls have not changed during phase 4b the view towards the North remained unchanged. A significantly larger viewshed was expected in the South - primarily due to the tower that was built in phase 4b.

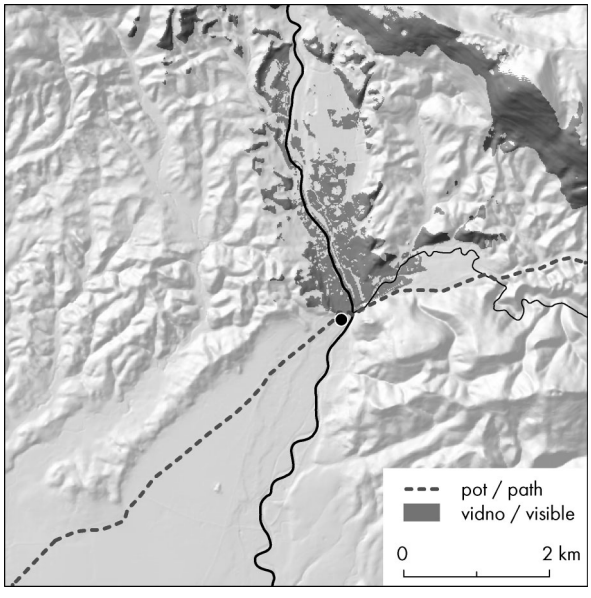
The difference between phases 4a and 4b is indeed noticeable (*fig. 9.1; fig. 9.3*). As expected there is no difference in the north part of the castle, but there is a significant difference in the south part of the castle. The exclusion of the southern viewshed in phase 4a and the reconstructed path that leads towards the regional centres of the time (Škofja Loka, Kranj, Ljubljana) seems especially meaningful.

In phase 4a the visual communication of the castle was concentrated in the north. This is even more accentuated when only the visibility of the prestigious parts of the castle walls with a special symbolic meaning (cf. chapters 4.2.1 and 4.2.3) is calculated (*fig. 9.2*). The entire area of the 17th century walled town (*fig. 3.1*) is located within this viewshed as are one or two field patches (*fig. 9.5*). The described situation is supportive of the hypothesis that the settlement area in phase 4a was already in the same place as the much latter walled town (for a different opinion see Šumi 1994, 103).

The possibility of controlling the same area with bows or cross-bows also seems interesting. These weapons are most commonly quoted to have a range spanning between 100 and 200 metres (Odar 2003, 16–17; see cited literature). Using the 200 metres mark reveals that not only the entire area of the 17th century walled town, but also the location of the oldest known bridge (*fig. 3.1; fig. 9.3*) would be within reach of the castle's arms. According to the 17th century description by Valvasor the Kamniška Bistrica river could be crossed without the use of a bridge a few kilometres south (1984, 250). Regardless of the chosen river crossing the Kamnik gorge ensured that the path towards the Tuhinje valley was within reach of the castle's arms at some point. The potential reach of the castle's arms was modelled using the 200 metre reach and the viewshed from the castle (*fig. 9.4*).

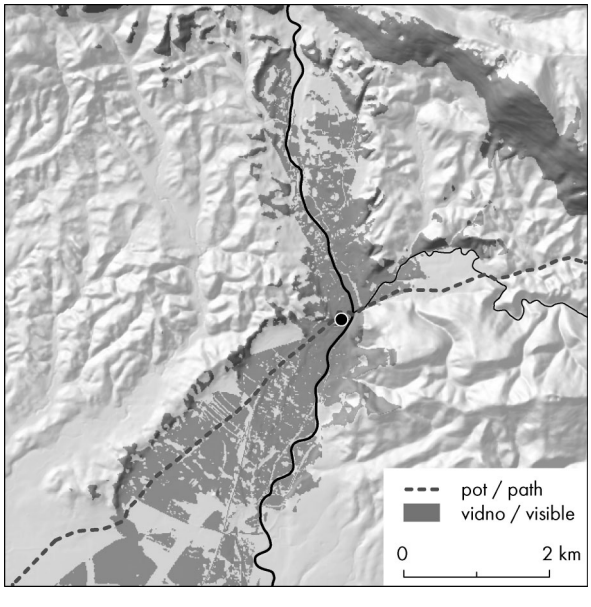
As mentioned, the newly erected phase 4b tower significantly changed the viewshed in the southern direction. The tower guard could maintain visual contact with a traveller from Kranj or Ljubljana a full hour before the traveller reached Kamnik (*fig. 9.3*; compare *fig. 9.5*).

It seems that the defensive role was not the tower's primary function. The area west of the castle is slightly hilly and far from impassable. The enemies approaching from this direction could remain hidden from the potential tower guards, especially as the terrain was likely to be



Sl. 9.2: Mali grad, vidno polje z dela obzidja, grajenega iz kvadrov, faze 4a (zid 1a) (vir za senčen relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Fig. 9.2: Mali grad, viewshed from the part of the wall built from blocks, phase 4a (wall 1a) (source for the shaded relief: DMV 12,5, November 2005 © Geodetska uprava Republike Slovenije).

dnega vogala Malega gradu, vidimo, da je znotraj dosega ves prostor pozneje obzidanega mesta in tudi kraj, kjer je vsaj od 17. stoletja dalje (*sl. 3.1*) stal most čez Kamniško Bistrico (*sl. 9.3*). Naravni prehod čez Kamniško Bistrico



Sl. 9.3: Mali grad, vidno polje s stolpa faze 4b (vir za senčen relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Fig. 9.3: Mali grad, viewshed from the phase 4b tower (source for the shaded relief: DMV 12,5, November 2005 © Geodetska uprava Republike Slovenije).

covered in forest. It therefore seems that visual communication with the travellers on the road played an important role for the tower from the beginning. These travellers included merchants with wagons. The prestigious building technique of the tower thus gains an additional use. At the same time this tower also visually dominated the town. It is worth noting that the older - prestigiously built part of the castle walls - visually dominated Stari trg (Old Market) whereas the tower dominated Glavni trg (Main square). However it seems that the visual impression of the tower was intended mainly for travellers. Thus Zeune's (1996) claim that the castle is foremost a symbol of power seems to be a righteous one in this case.

The oldest known name of the larger of the two fields (*fig. 9.5*) is Zapriško polje (the Zaprice field). It is likely that this was originally a part of the Mali grad estate as the Zaprice castle is probably the successor of Mali grad. The smaller field system north of the castle - named simply Polje (field) - could therefore originally belong to the settlers and later to the townspeople of Kamnik. All of these fields are located within the half hour site catchment area and are therefore in sync with the theoretical model of the half hour site catchment area for agricultural societies (cf. Štular 2006a, 206–209).

9.2. STEIN (12TH CENTURY)

The Mali grad Early Medieval cemetery (Sagadin 2001; Štular 2007b) indicates the presence of the prefeudal aristocracy in the late 10th and early 11th century. Whatever the interpretation the cemetery indicates the presence of a settlement on the Mali grad hill or in its close proximity.

At that time (see chapter 2) Mali grad was ruled from Kranj by the border dukes from the Bavarian Sempt-Ebersberg family. Around 1036 the territory of Savinjska Marka was annexed to *Carniola*. As a result of the Bavarian noble families moving their administration and military centres from larger fortified settlements to castles, Mali grad became a crucial connection at the narrowest possible point. The new castles were often strategically located on the borders between the old and the newly colonised territories.

The importance of Mali grad in the 11th century is obvious. Therefore the replacement of the old ruler of the Mali grad hill (most likely a Slavic nobleman carrying the name of Velmož and his family) with direct noble subjects of the border duke was merely a question of time. Unfortunately, the question of time remains.

The *terminus post quem* for the earliest castle is represented by the youngest Early Medieval graves found on the Mali grad hill. These are dated into the early 11th century.

A series of architectural elements define the earliest Romanesque castle on the northern part. The tympanum

je bil verjetno nekaj kilometrov južneje, kakor ga opisuje Valvazor (1984, 250). Toda ne glede na to, kje je popotnik prečkal reko, ga je pot v Tuhinjsko dolino vodila skozi tesen, ki bi jo lahko nadzorovali strelci z Malega gradu. Z vidnim poljem v dosegu 200 metrov smo modelirali možen doseg strelca, katerega strelna ploščad bi bila postavljena na severnem obzidju gradu (*sl. 9.4*).

Kot omenjeno, vidno polje se je močno spremenilo z izgradnjo stolpa v fazi 4b. Razgled s tega stolpa ob upoštevanju višine 15 metrov se močno poveča predvsem v smeri južno od gradu. Tako sta se na primer potnik na poti iz smeri današnjega Kranja ali Ljubljane in opazovalec na stolpu lahko opazovala več kot uro, preden je potnik prišel v mesto (*sl. 9.3*; prim *sl. 9.5*).

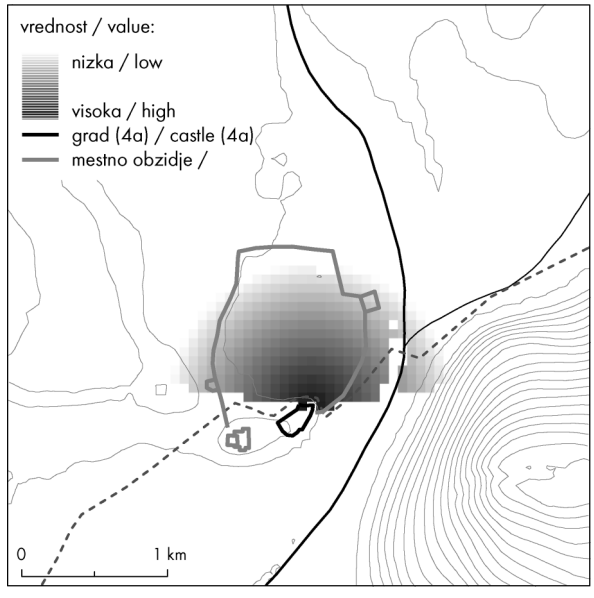
Poudariti velja, da se v tem primeru morebitna vojaškostrateška vloga stolpa ne zdi najpomembnejši dejavnik. Gričevnato zaledje zahodno od Malega gradu nikakor ni neprehodno. Približevanje iz te smeri bi zaradi razgibanega ter najverjetneje gozdnatega terena lahko ostalo prikrito in je zato idealno za morebiten napad. Zdi se, da je bil namen stolpa predvsem vizualno komunicirati s potniki, ki so uporabljali ravninsko pot. Med te so zagotovo sodili vsi tovorniki z vozovi. Tako postane razumljiva tudi prestižna gradnja stolpa iz kvadrov. Stolp je sicer postal dodatna vizualna dominanta mesta. Morda je pomenljivo, da je stolp vidno dominiral nad mlajšim Glavnim trgom, starejše prestižno grajeno obzidje pa predvsem nad Starim trgom. Toda prestižna gradnja tega stolpa je bila namenjena predvsem potnikom, ki so se mestu približevali iz Ljubljane, Kranja ali Škofje Loke. V tem primeru lahko upravičeno govorimo o simbolu moči (prim. Zeune 1996).

Na podlagi franciscejskega katastra smo določili verjetne poljske površine (*sl. 9.5*). Veliko južno zemljiško jedro je na franciscejskem katastru imenovano Zapriško polje. Grad Zaprice in pripadajoča posest sta zelo verjeten naslednik Malega gradu in pripadajoče posesti. Poljske površine severno od gradu so bolj razdrobljene in so na franciscejskem katastru imenovane preprosto Polje. Te bi lahko prvotno pripadale prebivalcem naselbine pod gradom. Vse opisane poljske površine so znotraj polurnega ekonomskega zaledja. Rezultat se torej ujema s teoretičnim modelom, po katerem poljedelske skupnosti intenzivno izkoriščajo predvsem prostor znotraj polurnega dosega (prim. Štular 2006a, 206–209).

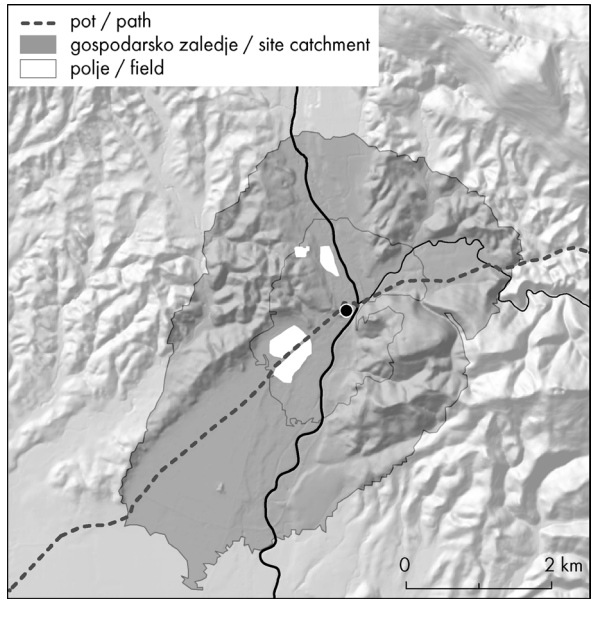
9.2. STEIN (12. STOLETJE)

Malograjsko grobišče (Sagadin 2001; Štular 2007b) kaže na prisotnost predfevdalne aristokracije še ob koncu 10. ali v začetku 11. stoletja. Ne glede na interpretacijo grobišča to priča o naselbini na malograjskem griču ali v neposredni bližini.

Spomnimo (glej poglavje 2.1), to je čas, ko so Kranjsko iz Kranja upravljali mejni grofje iz rodu bavar-



Sl. 9.4: Mali grad, prekrivanje 200-metrskega dosega in vidnega polja modelira doseg strelca na strelni ploščadi na severnem obzidju Malega gradu (vir za plastnice: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Sl. 9.4: Mali grad, covering the 200 metre reach with the viewshed models provides us with the reach of the archer standing on the shooting plateau on the north wall of Mali grad (source for relief: DMV 12,5, November 2005 © Geodetska uprava Republike Slovenije).



Sl. 9.5: Polurno in enourno ekonomsko zaledje Malega gradu ter poljske površine, rekonstruirane na podlagi franciscejskega katastra (vir za senčen relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Sl. 9.5: The half hour and one hour site catchment of Mali grad, the field areas reconstructed from the Franciscan cadastre (source for the shaded relief: DMV 12,5, November 2005 © Geodetska uprava Republike Slovenije).

skih Sempt-Ebersbergov. Okoli leta 1036 so Kranjsko razširili še na prej ločeno Savinjsko marko. In Mali grad je kot punčica očesa postavljen v ozko grlo povezave med Kranjsko in Savinjsko marko. Bavarske plemiške družine so v tem času selile upravna središča iz starejših velikih utrjenih naselbin na nastajajoče gradove, ki so jih pogosto postavljali na stik med ozemljem stare poselitve in na novo pridobljenimi območji.

Našteto kaže na izjemen pomen Malega gradu v 11. stoletju. Zamenjava lastnikov malograjskega griča, najverjetneje slovanske velmoške družine z neposrednimi podložniki mejnega grofa, je bila torej le vprašanje časa. In vprašanje časa še naprej tudi ostaja.

Terminus post quem za nastanek prvega gradu v Kamniku je datacija zgodnjesrednjeveškega grobišča na prostoru grajskega jedra. To in fevdalni grad na istem prostoru se časovno medsebojno izključujeta. Najmlajši pokopi, datirani v začetek 11. stoletja, so torej starejši od gradu.

Niz arhitekturnih elementov in posameznih arhitekturnih členov opredeljuje prvo fazo romanskega obodnega gradu, ki je stal na vzhodnem delu malograjskega hriba. Najstarejši arhitekturni člen malograjske kapele je verjetno nastal konec 11. stoletja, česar pa ne moremo neposredno povezovati z nastankom gradu. Glede na gradnjo severnega dela obzidja, s kvadri in s svetlobno lino brez okvirja, lahko postavitev prvotnega grajskega jedra postavimo v drugo četrtino 12. stoletja.

Znani podatki omogočajo le zelo splošno ugotovitev, da je bil prvi grad na malograjskem griču zgrajen morda že konec 11. stoletja, zagotovo pa je stal v četrtem desetletju 12. stoletja. Takrat je bil malograjski *Stein* že najpomembnejši grad Andeških na Kranjskem, saj se je po njem, ko se je mudil na Kranjskem, naslavljal grof Bertold II. Andeško-Meranski. Povsem možno je, da je grad postavil ravno Bertold II., ki je do posesti na Kranjskem prišel med letoma 1112 in 1120. Velikost v primerjavi z drugimi skalnimi gradovi ter starost gradu vsekakor kažeta, da je šlo že v 12. stoletju za grad regionalnega pomena.

Izbor malograjskega griča je narekovala strateška lega. Poleg omenjenega stika med prvotno Kranjsko in priključeno Savinjsko marko leži Mali grad tudi ob pomembni poti na Koroško, kjer je središče andeške oblasti postal Slovenj Gradec. Kot smo pokazali, je bil prvotni kamniški grad postavljen, da bi nadziral pot skozi tesen ob sotočju Kamniške Bistrice in Nevljice.

Vizualna komunikacija gradu jasno kaže, da so se na prostoru poznejšega mestnega obzidja odvijale za grad pomembne dejavnosti. Najverjetnejša razlaga za dejavnosti, ki jih želijo nadzorovati uporabniki najpomembnejšega gradu v deželi, je centralna naselbina neagrarnega značaja (za uporabo izraza prim. Kosi 2005a, 275–280). Veliko boljše izhodišče za naselbino agrarnega značaja sta imela namreč bližnji Mengeš in Komenda (Štular 2002, sl. 24). Če je takšna naselbina obstajala, bi jo lahko opisali kot zgodnje urbano naselbino.

in the castle's chapel was made towards the end of the 11th century. As it was reused in the 12th century chapel it does not directly date the castle. The northern wall built from dressed blocks and a frameless loophole indicates that the chapel was built in the 2nd quarter of the 12th century.

The known data permits only for generalisation as regards the oldest Mali grad castle, estimating that it might have been built at the end of the 11th century, but was definitely standing by 1140. At that time the *Stein* on the Mali grad hill was already the most important castle of the Andechs family in *Carniola, as* the head of the family Berthold II named himself after this castle when conducting affairs in *Carniola*. It seems likely that the castle was built by Berthold II as soon as he acquired the estates at some stage between 1112 and 1120. The early time of its construction and the size of the castle (compared to other similarly positioned castles) indicate that this was a castle of regional importance already in this time.

The position of the castle within the landscape has a clear strategic background: not only is the castle located on the border between *Carniola* and the annexed Savinjska Marka, it also guards the important route (see chapter 9.1) towards the town of Slovenj Gradec, the centre of the Andechs' activities in neighbouring *Carinthia*.

The visual communication of the castle is a clear indicator that the area of the later town fortification was of special interest to the castle. The most likely activities that the castellans of the most important castle in the land have to control must be connected with the central non-agrarian settlement (for the use of the term see Kosi 2005a, 275–280). Both nearby settlements (Komenda or Mengeš) were better equipped to become the central agrarian settlement (cf. Štular 2002, sl. 24). If there was an early settlement at the foot of the Mali grad castle it would be best described as an early urban settlement.

The absence of a single shred of evidence that would lead us to believe a 12th century settlement existed can be ascribed to the nature of the written sources (cf. Kosi 2005a, 271–274) and the absence of archaeological excavations. However, it is certain that the Andechs were establishing towns in every county (Dippold 1998) during that period. The town and the castle are crucial elements of the medieval landscape. The kings, dukes and other nobility built castles and established towns in order to ascertain their power and wealth. In the case of Kamnik the question as regards whether a town could exist without a castle (Zettler 1995, 151) should be reversed: could a count's castle exist without a town?

9.3. MEDIEVAL CAPITAL KAMNIK (13TH CENTURY)

Mali grad was closely related to the settlement, regardless of whether the settlement predates the castle or they appeared at about the same time (late 11th or

O naselbini v 12. stoletju nimamo nobenih neposrednih dokazov, kar pa je le posledica narave pisnih virov (prim. Kosi 2005a, 271–274) in odsotnosti kakršnih koli arheoloških izkopavanj. Vemo, da so Andeško-Meranski mesta ustanavljali v vseh svojih grofijah (Dippold 1998). Mesto in grad sta splošni obliki srednjeveške poselitve in pomembna elementa preteklosti kulturne krajine. Kralji, vojvode in plemiči so uporabljali obe obliki za formiranje in utrjevanje svojih zemljiških posesti. Vprašanje, ali je mesto brez gradu sploh lahko obstajalo (Zettler 1995, 151), v našem primeru lahko obrnemo: ali je grofovski grad lahko obstajal brez mesta?

9.3. SREDNJEVEŠKA PRESTOLNICA KAMNIK (13. STOLETJE)

Mali grad je bil torej že ob samem nastanku tesno povezan z naselbino, bodisi da je naselbina tam že bila ali pa je nastala hkrati z gradom. Toda kakih sto let pozneje so z velikimi gradbenimi deli grad spremenili v obliko, ki jo najbolje opišemo kot zgodnjo obliko mestnega gradu.

Mestni gradovi so na primer na Moravskem nastajali v 13. stoletju. Včasih je bilo mesto naknadno priključeno gradu (Olomouc, Znojmo), večinoma pa so gradovi nastali kot del mestnih utrdb. Praviloma so povezani v mestno obzidje, grad pa je od ulične mreže ločevalo predgradje. V 14. ali najpozneje 15. stoletju so se utrdbe gradu in mesta povezale. Izjemoma vlogo citadele prevzame cerkev (Hustopeče pri Brnu) ali pa grad preraste v mesto, kot denimo komenda nemškega viteškega reda, ki je prerasla v mesto Slavkov (Plaček 1997). Na podlagi teh primerjav lahko Mali grad v začetku 13. stoletja opišemo kot mestni grad. To potrjujejo tudi pisni viri, ki najverjetneje v tem času označujejo z imenom *Stein* celoto, grad in mesto (glej poglavje 2.6).

Posreden kazalnik o obstoju trgovskega naselja je tudi kovnica breških pfenigov, ki je v Kamniku nastala okoli leta 1195, morda že okoli leta 1180 (Kos 1985, 43). Kovanje novcev je odraz uvajanja tržnega gospodarstva in razvoja trgovine. Ravno breški pfenig je bil na vrhuncu svoje priljubljenosti v prvih desetletjih 13. stoletja (prim. Winter 2001) najvažnejše plačilno sredstvo na območju vzhodnih Alp, Furlanije, slovenskih dežel, Hrvaške, Dalmacije, Bosne in tudi Ogrske (Kosi 1998, 32). Podobno priča tudi obvezna pot skozi Tuhinjsko dolino, ki jo je najpozneje v začetku 13. stoletja uvedel Henrik IV. (Vilfan 1985). Uvedbo te poti si lahko razlagamo le tako, da je naselbina s tržnimi pravicami, torej infrastruktura za črpanje dobička, že obstajala.

Toda o obstoju naselbine nimamo nobenih arheoloških podatkov in zato na tem mestu ne moremo prispevati k reševanju tega vprašanja. Iz vsega naštetega lahko le povzamemo, da je bil Kamnik v zadnjih desetletjih 12. in prvih desetletjih 13. stoletja pomembna naselbina

early 12th century). Roughly one century later the castle was enlarged and rebuilt into the form that can only be described as an early form of a city castle.

City castles emerged e.g. in Moravia in the 13th century. Sometimes the town was incorporated into the pre-existing castle (Olomouc, Znojmo) but most often the castle grew from the town's fortification. The castles were usually connected to the city walls. The castle's outer bailey served as a buffer between the castle and the street network. In the 14th century (or 15th at the latest) the castle was unified with the city fortifications. On rare occasions the role of the *citadel* was performed by the church (Hustopeče by Brno) or the castle itself grew into a city. An example for this is *komenda*, the estate of the German Knights that grew into the city Slavkov (Plaček 1997). Based on these comparisons the early 13th century Mali grad can be described as a city castle. Certain written sources use a single word, *Stein* (Kamnik) to describe the entire complex: the castle and the city (see chapter 2.6).

Another piece of indirect proof as to the existence of a merchant's settlement is the silver coin forgery that was established around 1180 or by 1195 at the latest (Kos 1985, 43). Coin forgery points towards the existence of a market economy and the development of trade. The form of the coins forged in Kamnik (the *Freisach pfennig*) was at the peak of its popularity during the first decades of the 13th century (cf. Winter 2001). At that time this form dominated the area spanning across the eastern Alps, Friuli, and modern Slovenia, Croatia, Bosnia and western Hungary (Kosi 1998, 32). Another witness to the importance of Kamnik is the route through the Tuhinje valley - that Heinrich IV of Andechs made obligatory for all trade by that time if not earlier (Vilfan 1985). This can only be explained if a settlement with market rights already existed, i.e. such endeavours were profitable.

The lack of archaeological evidence for such a settlement means that no archaeological contribution can be made to this discussion. At this point we can merely summarise by saying that Kamnik was a settlement of more than just regional importance in the last decades of the 12th and the first decades of the 13th century. This settlement was headed by count Heinrich IV of Andechs. The modern analogy would be to call Kamnik the capital city of *Carniola*.

This status (of the town of Kamnik) as well as the increasing demand of the nobility for additional comfort demanded a representative castle, which is exactly what Mali grad became at the time. The works were most likely commissioned by duke Berthold IV of Andechs-Meranier, the mightiest man within the family, when he decided to divide his legacy amongst his two sons. If this was not the case, then Heinrich IV commissioned the works when he inherited the title of the count and the large estates south of Danube, but not the family's home castle. Archaeological dating allows for both possibilities.

nadregionalnega pomena, katere niti je držal v rokah istrski mejni grof Henrik IV. Andeški. Z moderno prispodobo takratni Kamnik lahko imenujemo prestolnica Kranjske.

Takšen status Kamnika kot tudi vse večje zahteve visokih fevdalcev po ugodju so pogojevali reprezentančno bivališče, kar je Mali grad v tem času tudi postal. Morda je dela naročil že vojvoda Bertold IV., najmogočnejši mož svoje rodbine, ko se je odločil, da bo svojo dediščino razdelil med sinova. Morda pa je to storil šele Henrik IV., ko je podedoval grofovski naziv in andeška posestva južno od Donave. Arheološko datiranje dopušča obe možnosti.

Kamnik se je s svojo središčno lego v prostoru Henrikove oblasti med Istro in Koroško ponujal že od začetka. Zagotovo pa je postal kraj, ki ga je grof Henrik IV. Andeški po zaroti ob kraljevem umoru leta 1208 imenoval dom. Takrat so pomembnejše gradove Andeških v njihovi rodni Bavarski njihovi nasprotniki požgali (Zeune 1998). Nemški zgodovinarji (Schütz 1993, 89) imenujejo Kranjsko v tem času Henrikovo alpsko zatočišče. In v resnici ga tu ni dosegla niti kraljeva roka.

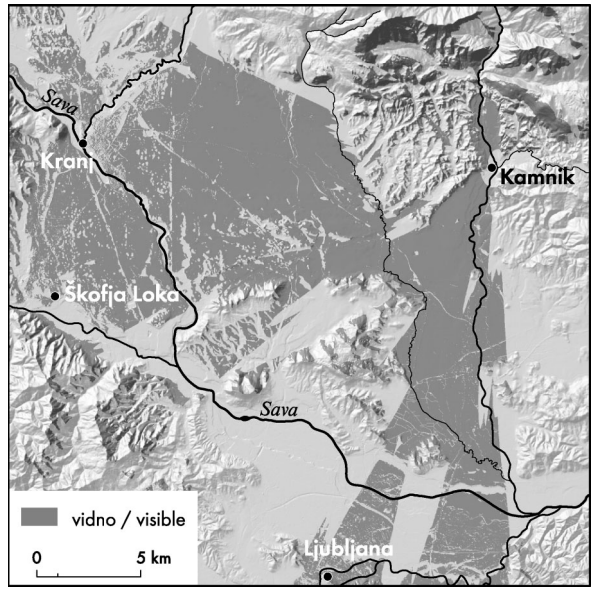
Povečane ambicije lastnikov kaže tudi sam grad. Stolp faze 4b, grajen v prestižni gradnji iz kvadrov, sicer dominira nad mlajšim glavnim trgom. Toda mesto ni več najpomembnejši prostor, ki mu grad razkazuje svojo moč in prestiž. Stolp je postavljen tudi na ogled potnikom z vozovi, ki potujejo skozi Kamnik. Kamnik je predstavljal pomemben člen v skrbno načrtovanem sistemu nadzora nad ključnimi potmi čez slovensko ozemlje z Ogrske proti Italiji in z Ogrske v notranjost vzhodnih Alp (Kosi 1998, 39). Spomnimo, z Ogrske, katere kraljica je bila Henrikova sestra, proti Italiji, kjer je bil drugi najpomembnejši človek cerkvene oblasti Henrikov brat, in v notranjost vzhodnih Alp, kjer so bile tri grofije Henrikovega brata Ota in velike posesti bamberške škofije, katere škof je bil tretji brat Ekbert. In ravno trgovci so lahko ponesli slavo mogočnega gradu, saj je ta verjetno služil tudi kot kažipot na delu poti (prim. Hook 1997, 3–21).

Zgornji grad je najverjetneje nastal v času, ko je bil prezidan tudi Mali grad. Natančen potek gradbenih del ni pomemben. Moder gospodar bi si najprej zgradil Zgornji grad in v njem preživel čas, ko je bil Mali grad zaradi del neuporaben. Lokacija Zgornjega gradu je nedvomno pogojena predvsem z vidnostjo, saj je sicer težko dostopen Zgornji grad viden z večjega

Kamnik was positioned in the centre of the of Heinrich IV estates which reached from Istria in the south to Carinthia in the north. Following the conspiracy against him (involving the murder of the king in 1208) Heinrich IV considered Kamnik to be his true home. The important family castles in Bavaria were burned by their opponents (Zeune 1998). Certain historians (Schütz 1993, 89) describe *Carniola* as the Alpine refuge of Heinrich IV. Indeed, not even the king could harm him here.

These ambitions of the Mali grad owners can be seen on the castle itself. The contemporary phase 4b tower was built using a prestigious technique and it therefore visually dominates Glavni trg, the younger of the two Kamnik squares. With this Kamnik ceased to be the main object for displaying power and wealth. Instead, the travellers on the path leading to Kamnik were able to admire the tower as they approached. Merchants were the main travellers and they were able to carry this impression of Mali grad throughout the vast territories since the castle was likely to be also an important post (cf. Hook 1997, 3–21). Mali grad was therefore an important part of a meticulously planned road network leading from northern Italy to the Hungarian kingdom, forking into the eastern Alps (Kosi 1998, 39). As regards the meticulous planning one only needs to be reminded of the siblings of Heinrich IV: Berthold V - the church official second only to the pope, with large estates in northern Italy; Gerthrude - queen of Hungary; count Otto and the bishop of Bamberg Ekberth, both with large estates in the eastern Alps.

The upper castle (*castrum superior*) was most likely built around the same time as Mali grad (*castrum inferior)* was rebuilt. The exact sequence is not important. A prudent lord would have built the new smaller upper castle and then commissioned the works on Mali grad. The location of the upper castle was undoubtedly chosen for its vistas or rather for its visibility. The otherwise hard to reach and somewhat remote castle can be seen from



Sl. 9.6: Zgornji grad in vidnost z gradu (vir za senčen relief: DMV 12,5, november 2005 © Geodetska uprava Republike Slovenije).
Sl. 9.6: Upper castle and the viewshed from the castle (source for the shady relief: DMV 12,5, November 2005 © Geodetska uprava Republike Slovenije).

dela vzhodne Gorenjske, tudi iz vseh pomembnejših krajev: Ljubljane, Kranja in Škofje Loke (*sl. 9.6*). Ne pa iz Kamnika!

Vendar je regionalna vloga Kamnika verjetno začela slabeti že po smrti Henrika IV. (+1228), zagotovo pa po smrti Bertolda V. (+1251). Natanko na sredini 13. stoletja, leta 1250, je Mali grad poslednjič zasijal v polnem sijaju, ko je bila v zgornji kapeli spisana listina vojaškega sporazuma med Bertoldom V. Andeškim in Ulrikom III. Spanheimom. Slednji je že naslednje leto z dedno pogodbo pridobil vsa andeška posestva na Kranjskem, kar mu je omogočilo, da je popeljal Kranjsko od mejne grofije do dežele (Komac 2006, 161–174). Toda v Kamniku se skorajda ni zadrževal. Središče njegovega delovanja na Kranjskem je bila Ljubljana (*sl. 9.7*).

Arheološka izkopavanja pa pričajo predvsem o življenju na gradu. V desetletjih razcveta je bil Mali grad prestižen grad. Kar nekaj elementov govori o dvojnosti družbe na njem. Najznamenitejša prispodoba je seveda dvojna kapela, najrazburljivejša je mogoča interpretacija stavbnega razvoja z dvema palacijema (*sl. 4.33*). Poleg zgoraj opisane vloge Kamnika kot središča Andeških na Kranjskem pisni viri govorijo tudi o kamniških gradiščanih (Komac 2006, 102–112). Je torej Gerloh Kamniški, kamniški gradiščan na začetku 13. stoletja, bival v drugem palaciju in poslušal mašo v spodnjem nadstropju kapele, Henrik IV. Andeški pa v domnevnem osrednjem palaciju in poslušal mašo ter izdajal pomembne listine v zgornjem nadstropju kapele? Tezo je mogoče uskladiti z dosedanjo, po kateri so kamniški gradiščani bivali na Malem gradu in se v času prisotnosti Andeških umaknili na Zgornji grad.

Razlog, da tudi v to razpravo ne moremo poseči z arheološkimi podatki, je, da ti večinoma izvirajo iz druge polovice 13. stoletja. Takrat je bila oprema grajskega palacija razmeroma revna, čeprav je bil Mali grad še vedno pomemben ministerialni grad. Nenavadna je tudi razporeditev prostorov. Kuhinjo najdemo na pričakovanem mestu, v severnem delu pritličja. Tudi ostanek pritličja je bil bržčas namenjen gospodarskim dejavnostim.

Toda preseneti nas prostor za shranjevanje poljščin, prvo nadstropje palacija. Shranjevanje poljščin v trdnih stavbah na gradovih sicer ni izjema (Kühtreiber 2006, 157–160). Bolj presenetljiv je položaj v prvem nadstropju, ki ga kastelologi pogosto imenujejo *beletage*, saj tam najpogosteje najdemo veliko dvorano, najprestižnejši prostor gradu (Krahe 2002a, 38). Kljub temu se zdi shranjevanje v manj vlažnem prvem nadstropju smiselno. Zaradi vlage so v tem času na podstrešju shranjevali sol na primer trgovci v severnonemškem Lübecku (Fehring 1989).

Dobro ohranjeni mehanizmi varovanja vhodov – ključi, ključavniški mehanizmi in zapah – na Malem gradu poudarjajo pomen varovanja zalog. Pri tem ne gre za varovanje gradu pred napadalci, temveč za nadzor zalog v gradu. Tako zapah kot ohranjene vrtljive

all important settlements of the time, Ljubljana, Škofja Loka and Kranj (*fig. 9.6*). Not from Kamnik, though!

The regional importance of Kamnik began to weaken as soon as Heinrich IV died (+1228), but certainly after the death of Berthold V (+1251). The last glorious moments of Mali grad took place in 1250, when the military treaty between Berthold V of Andechs and Ulrich III of Speinheim was drafted in the upper chapel. The latter demised through the contract between the families merely a year later. This enabled him to guide *Carniola* from being a margravia to becoming (partially) sovereign land (Komac 2006, 161–174). However, the home castle and city of Ulrich III was Ljubljana where he also conducted most of his affairs. Hence, the city of Kamnik begun to decline and became the town of Kamnik.

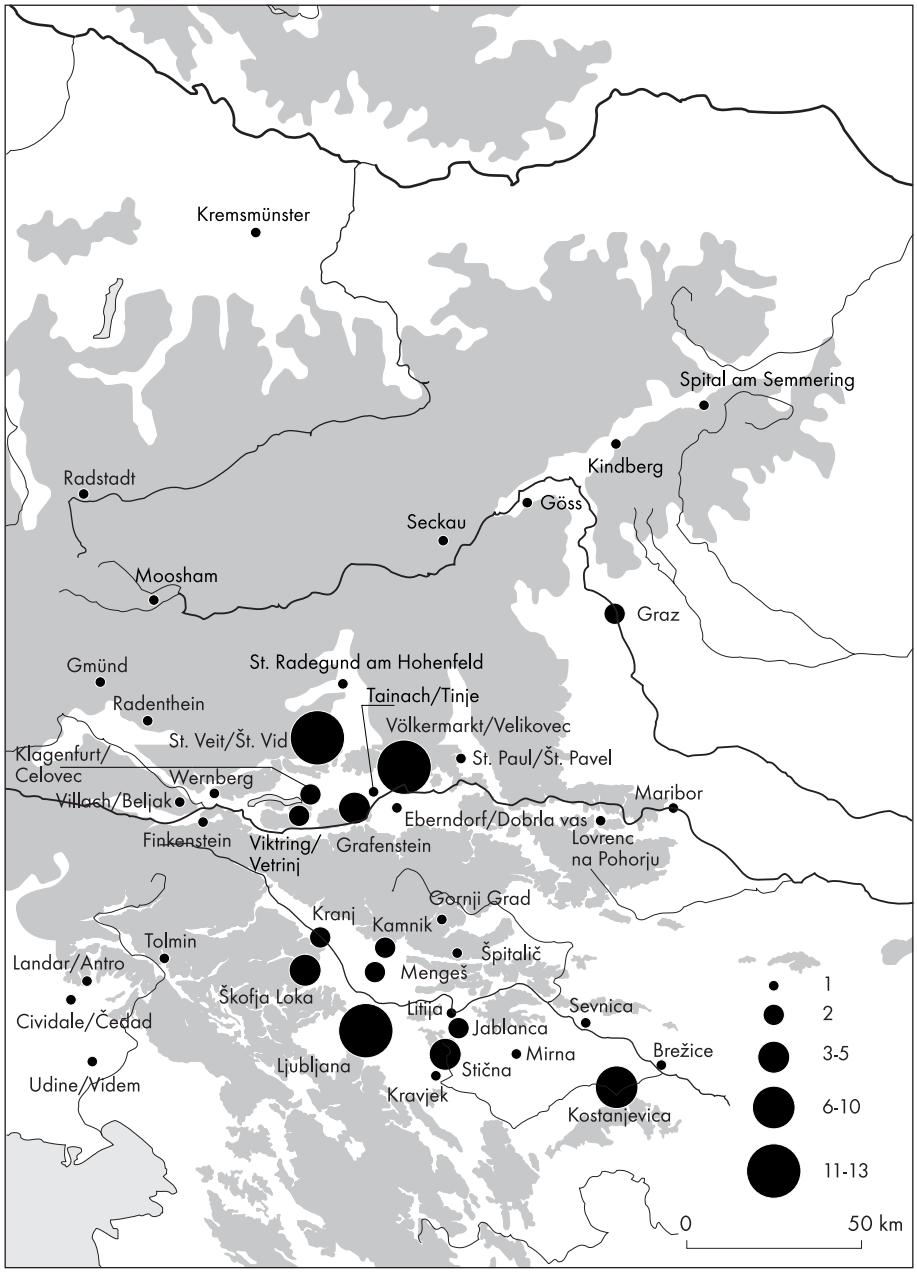
The archaeological evidence mainly uncovers the life on the castle. At its peak Mali grad was a prestigious castle. However, several elements bear witness to the duality of the castle society. The most famous one is the double chapel, while the most intriguing one is the possible interpretation with the second palatium (*fig. 4.33*). The written sources also convey the details of the lives of the castellans (Komac 2006, 102–112).

Did Gerloch of Kamnik, the ministerial serving as the keeper of Mali grad at the beginning of the 13th century, inhabit the 2nd palatium and celebrate mass in the lower chapel, while Heinrich IV of Andechs stayed in the central palatium and celebrated mass and conducted his legal affairs in the upper chapel? This new hypothesis can be synced with the current one, according to which the keepers of Mali grad moved to the upper castle whenever the members of the Andechs family arrived.

The reason for the silence of the archaeological evidence for the period is that (as is often the case) archaeological evidence derives from the last period the inner castle bailey was used. Compared to other castles this castle was poorly equipped in the 2nd half of the 13th century. Especially when one takes into account that Mali grad was still an important ministerial castle. The living quarters within the 2nd palatium were also unusually distributed. The kitchen was found in the northern part of the ground floor (as expected), while the rest of the ground floor was probably used for everyday economic activities.

The discovery of the granary on the 1st floor came as a surprise. The placement of the granary in the stone buildings within the castle is not unique (Kühtreiber 2006, 157–160). But the 1st floor - meaningfully called the *beletage* - is where the most prestigious living quarters, i.e. the great hall is usually found (Krahe 2002a, 38). However, the use of the dryer 1st floor for storage makes sense. The contemporary merchants in the north German city of Lübeck kept their salt supplies dry by storing it in the attic (Fehring 1989).

The keys, rotary locks and heavy bolts preserved *in situ* emphasise the importance of guarding the food



Sl. 9.7: Itinerar vojvode Ulrika III. Spanheima v letih 1248–1269 (vir: Komac 2006, 276). Velikost krožcev ponazarja število dokumentov, ki jih je Ulrik podpisal v posameznem kraju.
Sl. 9.7: Itinerary of Duke Ulrich III Spanheim in the years 1248–1269 (source: Komac 2006, 276). The size of the circles denotes the number of documents that he signed at an individual location.

ključavnice je bilo mogoče zapreti le z notranje strani. Kdor je varoval zaloge, je bival na prostoru prvotnega grajskega jedra.

Razporeditev in vlogo prehodov med grajskim jedrom in predgradjem bi lahko uporabili kot dodatno argumentacijo za obstoj dveh palacijev. V palaciju z revno opremo v prvotnem grajskem jedru bi tako bival ministerial, zadolžen za neposreden nadzor nad dajatvami v naravi. Palacij s kapelo bi v drugi polovici 13. stoletja po tej razlagi uporabljali dediči Gerloha Kamniškega, gradiščani Malega gradu.

supplies. It is important to distinguish between guarding the castle from the outsiders and one group of castle inhabitants preventing the other group from accessing the food supplies. The first is the normal role of castles, while the second is a characteristic of Mali grad. The group guarding the food supplies used the inner castle from where all locking mechanisms could be accessed.

The placement and the role of the castles passages between the inner and outer bailey can be used as an additional argument for the existence of the central palatium. In this case the poorly equipped 2nd palatium would

Grad je najverjetneje proti koncu 13. stoletja pogorel. Že med požarom se je delno podrl in ni bil nikoli obnovljen v vsem obsegu. Številni predmeti, ki so ostali na mestu uporabe, kažejo, da je požar prebivalce presenetil. Toda odsotnost prestižnih predmetov bi si lahko razlagali tudi tako, da jih je prebivalcem uspelo rešiti pred požarom.

Prizorišče požara je na prostoru prvotnega grajskega jedra dolgo ostalo nedotaknjeno, o čemer priča nedotaknjena žganinska plast. Več o času in vzroku požara ne vemo.

9.4. POLOVIČNI GRAD (14. IN 15. STOLETJE)

Arheološki viri in pisni viri si za čas 14. stoletja na videz nasprotujejo. Arheološki viri pričajo o nedotaknjenih ruševinah na severovzhodnem delu malograjskega griča, kjer je bilo v fazi 4b grajsko jedro. Pisni viri pa govorijo o različnih ministerialih, ki so imeli pravico bivanja na Malem gradu. Ti viri iz 14. stoletja torej govorijo o dejavnostih na zahodnem delu malograjskega griča. Tam je potemtakem poleg hipotetičnega tretjega palacija stal stolp, ki je bil ne glede na to, ali je šlo za t. i. bergfrid ali bivalni stolp (prim. Krahe 2002b, 19–21), namenjen bivanju. Omemba dveh Nikolajev, Kolovškega in Sommereckerja, ki sta si sredi 14. stoletja celo delila Mali grad, se zopet ponuja kot argument za obstoj tretjega palacija. To obdobje gradu se je končalo enkrat pred letom 1444, ko je grad omenjen kot opuščen.

Natančneje bi lahko to obdobje razjasnila le izkopavanja osrednjega dela malograjskega griča, še neizkopanega dela predgradja faze 4b.

9.5. MALA UTRDBA (16. STOLETJE)

Opuščen Mali grad s posestjo je bil leta 1474 izročen cesarju Frideriku III. (Otorepec 1985, 20). Že sredi 15. stoletja pa je cesar razpisal posebno tlako za izkop jarka pred kamniškim obzidjem, da bi utrdil mesto pred grozečo turško nevarnostjo. Takšen potek dogodkov kaže, da je Mala utrdba, kot viri imenujejo poznosrednjeveško in zgodnjenovoveško mestno utrdbo, današnji razgledni stolp, najverjetneje nastala v zadnji četrtini 15. stoletja. Valvazor to utrdbo leta 1679 opiše kot opuščeno. Najdbe pečnic in t. i. loške slikane lončenine, ki izvirajo iz nezanesljivih kontekstov in so tipološko umeščene v 16. stoletje, verjetno lahko pripišemo odpadu Male utrdbe.

Utrdba je botrovala tudi današnjemu poimenovanju Mali grad. Takrat je verjetno nastalo tudi poimenovanje Stari grad za Zgornji grad, ki je konec 15. stoletja še služil kot upravno središče zemljiškega gospostva.

be used by a ministerial in charge of the tributes in kind in the name of a higher lord. The central palatium with direct access to the upper chapel would be used by the descendants of Gerloch of Kamnik, the castellans.

The castle burnt down towards the end of the 13th century. It began to crumble during the fire and was never fully rebuilt. Several artefacts and a substantial amount of food supplies found *in situ* suggest that the fire surprised the inhabitants. Perhaps they were able to rescue at least their most valuable possessions, for they seem to be missing.

The intact burnt layer tells us that the area of the 2nd palatium and the inner bailey remained untouched for centuries to come. This is probably as much as we will ever know about the time and the cause of the fire.

9.4. HALVED CASTLE (14TH AND 15TH CENTURY)

Archaeological and written sources for the 14th century seem to contradict one another. The archaeological sources show the castle's core and the inner bailey in ruins (that have not been cleared or otherwise intervened with). However, written sources report of several ministerials who had the right to sojourn at the Mali grad castle. The 14th century written sources refer to the western part of the castle that housed the possible central palatium and the tower. Castle towers were usually used as detached dwelling units (cf. Krahe 2002b, 19–21). Two fact that two ministerials shared Mali grad in the mid 14th century is another argument for the existence of the central palatium. Nevertheless, the castle was abandoned prior to 1444.

In order to find further evidence on this phase, the area south of the chapel (where the supposed central palatium was) needs to be excavated.

9.5. FORT (16TH CENTURY)

The abandoned castle was handed over to emperor Friderik III in 1474 (Otorepec 1985, 20). A few decades earlier the emperor ruled that a moat must be made that will defend the town Kamnik against any Turkish attacks. These two references show that the small Fort (as the defensive tower incorporated into the town walls was referred to in the written sources from the time) was erected in the last quarter of the 15th century. In 1679 Valvasaor described this fort as deserted. The unstratified finds of tile stoves and the Škofja Loka painted ceramic ware typologically dated into the 16th century are most likely refuse from this fort.

This fort gave the name to the Mali grad (Small castle) hill. At the same time the name Stari grad (Old castle) was given to the upper castle (still in use at the end of the 15th century).

9.6. MALI GRAD IN DEFINICIJA GRADU

Večina besedil, ki govori o gradovih, se začenja z definicijo gradu. Mi bomo z definicijo končali.

Definicij gradov je nemalo, skoraj toliko kot avtorjev (Piper 1912, 3–6; Stopar 1977, 9; Zeune 1996; King 1988, 1–15; Krahe 1994, 15; Meyer 1995), in se bolj ali manj razlikujejo med seboj. Vse govorijo, da je grad utrdbena arhitektura z bivalno funkcijo za gradiščana in njegovo družino ter osebje. Večina definicij pripisuje gradu tudi upravno, sodno in simbolno vlogo.

Mnenja se krešejo o pomembnosti posamezne sestavine. Posebej spotakljiva je vojaška vloga gradu. V študijah pred drugo svetovno vojno je bila ta v ospredju (npr. Thompson 1912; manj izrazito Piper 1912, 1–5; za pregled v srednji Evropi glej npr. Fehring 2000, 9–12). V devetdesetih letih prejšnjega stoletja je prišlo do druge skrajnosti, ko je na primer Zeune (1996) s celo monografijo dokazoval, da je bila najpomembnejša vloga gradov simbolna, razkazovanje moči.

Kljub vsemu je grad treba obravnavati tudi z vojaškega stališča. "Konec koncev, za vojno so bili namenjeni."[1] (Thompson 1912, 212; prim. France 1999, 153). Vendar pojma vojna ne smemo obravnavati v današnjem pomenu. Pogosto je šlo za pregon s posesti, soočenje z upornimi kmeti ali roparske napade (King 1988, 6), torej vojno v zelo majhnem obsegu (France 1999, 8). Še najpomembnejše pa se v tem kontekstu zdijo fajde (nem. *Fehde*), legitimna pravica plemičev, da v zadnji instanci z nasiljem uveljavijo svoje upravičene zahteve do drugih plemičev (Komac 2006, 16).

Širjenje zemljiške posesti na račun sosedov je bilo v srednjem veku zelo pogosto. A popolna oblast, pobiranje davkov, je bila mogoča šele, ko je novi lastnik oziroma njegov vazal izgnal prejšnje prebivalce in zasedel grad. Zdi se, da je le organizacija prostora z vasmi in fevdalnimi utrdbami v neposredni bližini omogočala neekonomsko prisilo k oddajanju dajatev, torej opravljanje osnovne fevdalne dejavnosti (King 1988, 6; prim. Steane 1985, 143–155).

Glavna naloga gradu v konfliktih je bila torej obdržati lastništvo nad njim, kar je omogočalo upravljanje s pripadajočim ozemljem (King 1988, 7–9; France 1999, 5). Ne gre torej za neposredno obrambo ali zaščito ozemlja in prebivalcev, temveč za branjenje vzvoda, ki fevdalcu omogoča gospodarsko izkoriščanje določenega ozemlja. Srednjeveški gradovi so le izjemoma 'zapirali' in 'nadzirali' strateške točke, poti ali prehode. To vlogo so dobile šele poznejše trdnjave, ki so bile običajno veliko večje in predvsem oborožene s topovi. Grad je lahko vojaško varoval le neposredno okolico na dosegu izstrelkov.

[1] After all, war is what they were meant for (prevod avtor).

9.6. MALI GRAD AND THE DEFINITION OF THE CASTLE

Most texts that deal with castles are introduced with a sort of definition of the castle. Ours ends with the definition.

There are almost as many different definitions of what a castle is as there were attempts to define it (e.g. Piper 1912, 3–6; Stopar 1977, 9; Zeune 1996; King 1988, 1–15; Krahe 1994, 15; Meyer 1995). Everybody seems to agree that a castle is a fortified architecture used to house the castle owner or more often the castellan with his family and staff. Most definitions also refer to the administrative, judicial and symbolic role of the castle.

The disagreements appear when the importance of the individual components is described. For example, the military role of the castle tends to be an especially sensitive issue. The pre-WWII studies were prone to emphasising it (e.g. Thompson 1912; Piper 1912, 1–5; overview for Central Europe e.g. Fehring 2000, 9–12). In the 1990s the other extreme was reached as the experts focused solely on the symbolic value of the castle on its display of power (Zeune 1996).

However, the military role of the castle must be taken into account. 'After all, war is what they were meant for,' (Thompson 1912, 212; cf. France 1999, 153). One must consider war as it was fought in the Medieval times. Often these wars were merely dislodgements, facing the rebellious peasants or robberies (King 1988, 6), by all means merely small scale wars (France 1999, 8). In this context the most important seem to be the so-called *Fehde*, the right of a nobleman to enforce his legitimate demands towards other noblemen with force as a last resort (Komac 2006, 16).

The expansion of one's estate at the expense of the neighbours was a common Medieval practice. However, the enforcement of power in the form of tax collection was possible only when the new owner or his vassal was stationed at the appropriate castle. It seems that organising the Medieval landscape with castles and adjacent villages was the only possible form for a non-economical (i.e. physical) enforcement of taxation in kind - which was the foundation of all feudal activities (King 1988, 6; cf. Steane 1985, 143–155).

In war, the main function of the castle was to preserve it in possession and hence preserve the ability to govern its estates (King 1988, 7–9; France 1999, 5). Therefore, the role of the castle is not to actually defend the estate and its inhabitants, but to defend the leverage for the economic use of the former. It was rare for Medieval castles to actually defend strategic locations, passes or roads. This role was taken over only centuries later by larger fortresses equipped with efficient gun power. The Medieval castle could only defend itself and its immediate surroundings.

Kakšne vojne so pestile Mali grad v 13. stoletju, posredno pričajo pisni viri. V letih 1249 do 1251 je divjal regionalni spopad med goriškimi grofi in oglejskim patriarhom Bertoldom V. Andeškim. Najverjetneje poleti leta 1250 so goriški zavzeli Mengeš. Sedež Andeških, Mali grad, je bil očitno pretrd oreh. Kljub temu je goriškim škofom kazalo tako dobro, da je bil Bertold V. Andeški prisiljen skleniti zavezništvo z edino preostalo silo v deželi, Ulrikom III. Speinheimom. V listini, spisani na Malem gradu, je Ulrik med drugim obljubil, da bo patriarhu prišel na pomoč z najmanj stotimi možmi (Komac 2006, 158–162). Sto mož je torej lahko prevesilo ježiček na tehtnici v regionalnem spopadu, med tem ko se je zavzetje gradu pisarjem komajda zdelo vredno omembe. V običajnem lokalnem spopadu je torej sodelovalo še precej manj oborožencev.

Glede definicije gradu imajo torej nemara prav kar vsi avtorji. Vhodni stolp würburškega škofa v spodnjefrankovskem Salzburgu je morda res služil zgolj kot simbol moči (Zeune 1996, 44). Toda graditelji angleških gradov Framlingham in White Castle, ki so tako skrbno načrtovali razporeditev strelnih lin (Steane 1985, 43), so branjenje gradu vzeli zelo resno. Marsikateri grad, ki je nastal pred sredino 12. stoletja, je bil zgrajen kot oporna točka kolonizacije, ministerialni gradovi trinajstega stoletja pa so večinoma nastajali ob že obstoječih vaseh (prim. Boos 1998, 72).

Še najbolj prav ima verjetno Meyer (1995, 35), ko poudarja pomen konteksta. Ta je od primera do primera drugačen. Vloga posameznega gradu je tako odvisna od njegove lege v prostoru in gospodarskega, družbenega, kulturnega in političnega okolja. Dodajmo še, v določenem časovnem obdobju.

In ravno to ilustrira spreminjajoča se vloga in usoda Malega gradu. V 12. stoletju je služil kot izhodišče za kolonizacijo, dejanski nadzor prehoda skozi kamniško tesen in verjetno tudi naselbine ter dejavnosti v njej. V začetku 13. stoletja je postal rezidenčni grad in simbol moči. V drugi polovici 13. stoletja je služil kot vzvod fevdalne moči, za gospodarsko izkoriščanje določenega ozemlja. Podobno vlogo je imel tudi v 14. stoletju, toda pomen gradiščanov je vse bolj slabel v primerjavi z mestom. Mesto je v 15. stoletju dokončno prevzelo lastništvo nad malograjskim gričem s kapelo in trdnjavo.

A glimpse into the type of wars that pestered Mali grad and its defenders in the 13th century can be gained through the written sources. A regional war between the counts of Gorizia and the Aquilean patriarch Berthold V of Andechs took place between 1249 and 1251. In the summer of 1250 (most likely) the counts of Gorizia conquered the Mengeš castle that lied less than 10 kilometres south of Kamnik. It seems that Mali grad was too strong of a fortification to attack. Despite this Berthold V of Andech was forced to form an alliance with the 3rd significant force in the country, Ulrich III of Speinhem. In the treaty that was drafted in the Mali grad chapel Ulrich promised that in the event of an attack he will aid Berthold with at least one hundred men (Komac 2006, 158–162). One hundred men could therefore make a crucial difference in a war of regional proportion while conquering a castle was not an obstacle worth mentioning. In a local war one would expect even less than one hundred man to be fighting on each side.

As regards the definition of the castle one might argue that none of the authors were wrong. It is highly likely that the sole purpose of the entrance tower of the castle belonging to the Bishop of Würburg in Lower Frankish Salzburg was to symbolise the owner's power (Zeune 1996, 44). However, as they took castle defending seriously, the builders of the English castles Framlingham and White Castle positioned the loopholes meticulously (Steane 1985, 43). Numerous castles built before the middle of the 12th century were central to the colonisation attempts, while most of the 13th century ministerial castles were built next to existing villages (cf. Boos 1998, 72).

It seems prudent to consider Meyer (1995, 35) as he praises the importance of the ever changing context. The function of each castle depends on its positioning in the landscape as well as its economic, social, cultural and political environment. Let us merely add the following: at any given time.

The temporal context is well illustrated by the Mali grad example. In the 12th century it was central for the colonisation and consolidation of large estates. At the same time the castellans were able to directly control the passage as well as the settlement. In the beginning of the 13th century the castle became a residential palace and a symbol of power. In the 2nd half of the 13th century Mali grad played the role of the leverage of feudal power, for it was the centre for collecting taxes in kind. It probably retained this role into the 14th century, but the importance of the castle became weaker due to the rising power of the town. The townsmen took over the ownership in the 15th century and used the remnants of the castle to fortify the town.

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11. KATALOG DROBNIH NAJDB

Št. - Začasna inventarna številka (gradivo hrani Medobčinski muzej Kamnik);
ZE - Zbiralna enota (prim. *Priloga 4*);
SE - Stratigrafska enota (prim. *Priloga 3*)

Tabla 1

1. Št. 7918. Šest okroglih ploščatih členkov verige, del mehanizma za obešanje kotla. ZE 194.
2. Št. 7917. Dvojni kavelj, zgornji del mehanizma za obešanje kotla. ZE 194.
3. Št. 7907. Lečasto kresilo na verigi z 1 okroglim in 4 tordiranimi členki. ZE 43, SE 1992/06.

Tabla 2

1. Št. 7923. Vrtljiv bradat ključ z votlo nogo in brado v obliki črke "U" ter ovalno glavo ploščatega preseka. ZE 214.
2. Št. 7924. Vrtljiv bradat ključ z votlo nogo in večkrat razčlenjeno brado ter okroglo glavo ploščatega preseka. ZE 241.
3. Št. 7925. Vrtljiv bradat ključ z votlo nogo in enkrat razčlenjeno brado ter okroglo glavo ploščatega preseka.
4. Št. 7926. Vrtljiv bradat ključ s presegajočim trnom in okroglo glavo ploščatega preseka ter razkovano brado.
5. Št. 7927. Vrtljiv bradat ključ s presegajočim trnom in rombično glavo kvadratnega preseka ter večkrat razčlenjeno brado.
6. Št. 7928. Vrtljiv bradat ključ s presegajočim trnom in rombično glavo ploščatega preseka ter večkrat razčlenjeno brado.
7. Št. 7929. Vrtljiv bradat ključ s presegajočim trnom in okroglo ali ovalno glavo ploščatega preseka ter enkrat razčlenjeno brado.
8. Št. 7930. Vrtljiv bradat ključ s presegajočim trnom in rombično glavo ploščatega preseka ter enkrat razčlenjeno brado.
9. Št. 7931. Vrtljiv bradat ključ s pravokotno zarezo brade in rombično glavo ploščatega preseka ter večkrat razčlenjeno brado.
10. Št. 7932. Vrtljiv bradat ključ s pravokotno zarezo brade in rombično glavo ploščatega preseka ter razčlenjeno brado.
11. Št. 7933. Vrtljiv bradat ključ s trnom oziroma vodoravno zarezo brade in ovalno glavo kvadratnega preseka ter večkrat razčlenjeno brado.
12. Št. 7934. Ključavniška kretnica. ZE 78.
13. Št. 7922. Ključavniška kretnica.

Tabla 3

1. Št. 7883. Odlomek srpa. ZE 154, SE 1990/14.
2. Št. 7882. Zagozda. ZE 154, SE 1990/14.

11. CATALOGUE OF FINDS

No. - Temporary inventory number (the finds are kept at the Intermunicipal museum of Kamnik);
CU - Collection Unit (see *Appendix 4*);
SU - Stratigraphic Unit (see *Appendix 3*)

Table 1

1. No. 7918. Kettle suspension chain; six circular flat-section links. CU 194.
2. No. 7917. Double hook, part of the kettle suspension mechanism. CU 194.
3. No. 7907. Biconcave tinder on chain of 1 round link and 4 torqued links.

Table 2

1. No. 7923. Rotary key with bit and hollow shank; "U" shaped bit and flat-section oval bow. CU 214.
2. No. 7924. Rotary key with bit and hollow shank; bit with several clefts and flat-section round bow. CU 241.
3. No. 7925. Rotary key with bit and hollow shank; bit with one cleft and flat-section round bow.
4. No. 7926. Rotary key with bit; bit with a narrow pin and flat-section round bow.
5. No. 7927. Rotary key with bit and a narrow pin; bit with several clefts and square-section rhombus bow.
6. No. 7928. Rotary key with bit and a narrow pin; bit with several clefts and flat-section rhombus bow.
7. No. 7929. Rotary key with bit and a narrow pin; bit with one cleft and round or oval flat-section bow.
8. No. 7930. Rotary key with bit and a narrow pin; bit with one cleft and rhombus flat-section bow.
9. No. 7931. Rotary key with bit; bit with several clefts and rhombus flat-section bow.
10. No. 7932. Rotary key with bit; bit with several clefts and rhombus flat-section bow.
11. No. 7933. Rotary key with bit and narrowed pin; bit with several clefts and oval square-section bow.
12. No. 7934. Bolt from rotary lock. CU 78.
13. No. 7922. Bolt from rotary lock.

Table 3

1. No. 7883. Sickle fragment. CU 154, SU 1990/14.
2. No. 7882. Wedge. CU 154, SU 1990/14.

3. Št. 7909. Otka s tulastim nasadilom. ZE 159.

4. Št. 7890. Ostroga s trnom in močno ukrivljenima locnoma.

5. Št. 7904. Trapezoidno streme z zaokroženimi vogali in rahlo izbočenim stopalnim delom. Stopalko sestavljata ločeni ozki prečki pravokotnega prereza, na spodnji strani stopalke sta dva izrastka. ZE 130, SE 1990/14.

6. Št. 7910. Podkev s šestimi luknjicami.

7. Št. 7936. Podkev s šestimi kvadratnimi luknjicami.

Tabla 4

1. Št. 7905. Triramno čohalo z vilicami razvejanimi v obliki črke "V" in fragmentiranim lesenim držalom. ZE 154, SE 1990/14.

2. Št. 7897. Brzda z eno paličasto naličnico in lomljenim ustnim členom. ZE 183, SE 1990/14.

3. Št. 7899. Pasna spona z locnom v obliki črke "D".

4. Št. 7902. Pasna spona z locnom v obliki črke "D".

5. Št. 7901. Pasna spona z locnom v obliki črke "D".

6. Št. 7900. Trapezasta pasna spona z valjčkom.

7. Št. 7903. Trapezasta pasna spona z zaobljenimi vogali.

Tabla 5

1. Št. 7896. Sulična ost s tulastim nasadilom, tekočim prehodom v ostrino in rahlim rebrom. Teža: 256 g. ZE 148, SE 1990/14.

2. Št. 7885. Nož sekač ima dolg trnast trn.

3. Št. 7893. Britev z zaklepom ima kratek trakast trn. ZE 244.

4. Št. 7884. Nož ima dolg trakast trn.

5. Št. 7899. Nož ima dolg trakast trn.

6. Št. 7908. Kroglast kraguljček iz bronaste zlitine. Debelina pločevine 0,08 cm.

7. Št. 6954. Odlomek železnega noža z bronasto oblogo trakastega nastavka za držaj.

8. Št. 7889. Nož ima trakast trn.

9. Št. 7899. Železen nož z bronasto oblogo trakastega nastavka za držaj.

10. Št. 7888. Nož ima trakast nastavek za držaj.

11. Št. 7915. Puščična ost s trnastim nasadilom ima deltoidno telo. Teža: 13g. ZE 219.

12. Št. 7914. Puščična ost s trnastim nasadilom ima listasto telo. Teža: 15g. ZE 147.

13. Št. 7911. Puščična ost s tulastim nasadilom ima ploščato telo. Predmet je dobro ohranjen, ohranjen je tudi fragment lesenega telesa puščice. Teža: 6g. ZE 157.

14. Št. 7912. Puščična ost s krilci in tulastim nasadilom. Teža: 8g. ZE 241, SE 1992/06.

15. Št. 7895. Puščična ost s krilci in tulastim nasadilom. Teža: 6g. ZE 29, SE 1992/06.

16. Št. 7913. Puščična ost s tulastim nasadilom. Teža: 35g.

Tabla 6

1. Št. 7913. Veriga iz kavljastih členkov okrašenih z mrežastimi vrezi. Ohranjenih je deset členkov. ZE 43, SE 1992/06.

2. Št. 7906. Veriga s tremi osmičastimi členki in pritrdilnim členkom.

3. Št. 7881. Svinčena spojka s kvadratno predrtino.

4. Št. 7935. Pločevinast okov, na katerega je prikovana zvezdasta aplika; verjetno del svečnika.

5. Št. 7898. Pločevinast okov, na katerega je prikovana zvezdasta aplika; verjetno del svečnika.

3. No. 7909. Specialized tool for cleaning the plough. CU 159.

4. No. 7890. Spur with goad and deeply curved sides.

5. No. 7904. Trapezoid stirrup with bifurcated concave footrest with two projections. CU 130, SU 1990/14.

6. No. 7910. Horseshoe with 6 nail-holes.

7. No. 7936. Horseshoe with 6 square nail-holes.

Table 4

1. No. 7905. Curry comb with angular blade and 3 armed "V" shaped handle. The iron part is well preserved; wooden part preserved in fragments. CU 154, SU 1990/14.

2. No. 7897. Bit with 1 cheek-piece bar and mouth-piece with jointed links. CU 183, SU 1990/14.

3. No. 7899. "D" shaped belt buckle.

4. No. 7902. "D" shaped belt buckle.

5. No. 7901. "D" shaped belt buckle.

6. No. 7900. Trapezoid shaped belt buckle with roller.

7. No. 7903. Trapezoid shaped belt buckle with rounded edges.

Table 5

1. No. 7896. Spear on socket. Weight: 256 g. CU 148, SU 1990/14.

2. No. 7885. Large-bladed cleaver with long tang.

3. No. 7893. Clasp razor with short tang. Only folding blade preserved. CU 244.

4. No. 7884. Knife with long tang.

5. No. 7899. Knife with long tang.

6. No. 7908. Rumbler bell made from brass. Plate thickness is 0, 08 cm.

7. No. 6954. Iron knife with bronze scale.

8. No. 7889. Knife with tang.

9. No. 7899. Iron knife with bronze scale.

10. No. 7888. Knife with plate.

11. No. 7915. Deltoid arrow-head with tang. Weight: 13g. CU 219.

12. No. 7914. Leaf-shaped arrow-head with tang. Weight: 15g. CU 147.

13. No. 7911. Arrow-head on socket. Weight: 6g. CU 157.

14. No. 7912. Winged arrow-head on socket. Weight: 8g. CU 241.

15. No. 7895. Winged arrow-head on socket. Weight: 6g. CU 29, SU 1992/06.

16. No. 7913. Arrow-head on socket. Weight: 35g.

Table 6

1. No. 7913. Chain; 10 links; each link is hammered from a single piece and has a hole on one end and a hook on the other end; it is decorated with fish-net-pattern incisions.

2. No. 7906. Chain; three square-section oval links with the opposite ends bent inwards and a riveted loop at one end.

3. No. 7881. Lead clamp with square hole; roughly pierced hole from which the metal has not been removed.

4. No. 7935. Sheet metal pendant with riveted star shaped pendant; possibly candleholder.

5. No. 7898. Sheet metal pendant with riveted star shaped pendant; possibly candleholder.

6. No. 7886. Awl; rectangle-section stem with circular-section tip and distinct shoulder. CU 134, SU 1990/08.

6. Št. 7886. Šilo s trnastim nasadilom za držaj pravokotnega preseka in izrazitim ramenom. ZE 134, SE 1990/08.

7. Št. 7887. Paličasto orodje s pilo in ravno zajemalko, okrašeno z urezi. ZE 219.

8. Št. 7938. Stilus z okroglim presekom.

Tabla 7

1. Št. 7919. Vodilo zapaha. ZE 179.

2. Št. 7920. Vodilo zapaha. ZE 179.

3. Št. 7939. Trikoten členek, verjetno verižni.

4. Št. 6953. Okroglo cedilo iz bronaste pločevine.

5. Št. 6951. Podkovski žebelj s piramidno glavo, verjetno t.i. lednik. ZE 160.

6. Št. 6513. Žebelj s pravokotno glavo. Predmet je močno korodiran na način, ki kaže, da je bil izpostavljen ognju.

7. Št. 6514. Podkovski žebelj s piramidno glavo.

8. Št. 6515. Žebelj za čevlje. ZE 160.

9. Št. 7916. Žebelj za čevlje.

10. Št. 6516. Žebelj s pravokotno glavo.

11. Št. 6957. Okrogla kovica iz neznane zlitine okrašena z drobnimi vrezi.

12. Št. 6955. Cevast okov vezalke iz verjetno medeninaste pločevine.

13. Št. 7937. Bronast pravokoten, verjetno pasni, okov z emajlnim vložkom, ki predstavlja par ptic ob drevesu življenja. ZE 154, SE 1990/14.

14. Št. 7921. Zapah. ZE 178.

Tabla 8

1. Št. 4827. Lonec, oblikovni tip 1F; ZE 55, SE 1992/04; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno preko rame; prismojeni ostanki.

2. Št. 3103. Lonec, oblikovni tip 1F; ZE 36; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, majhna vsebnost; izdelava: hitro kolo; prismojeni ostanki.

3. Št. 7410. Lonec, oblikovni tip 1F; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: apnenec; neenakomerna velikost; srednja vsebnost.

4. Št. 2758 in 2764. Lonec, oblikovni tip 1H; ZE 32, SE 1992/08; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: apnenec; neenakomerna velikost, srednja vsebnost; izdelava: počasno lončarsko kolo; okras: enosmerno metličenje.

5. Št. 2599. Lonec, oblikovni tip 1G; ZE 29, SE 1992/06; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost.

6. Št. 2923. Lonec, oblikovni tip 2C; ZE 34; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: apnenec, enakomerna velikost, velika vsebnost.

7. Št. 4836. Lonec, oblikovni tip 2C; ZE 34; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

8. Št. 2576. Lonec, oblikovni tip 2F; ZE 29, SE 1992/06; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; prismojeni ostanki.

9. Št. 2922. Lonec, oblikovni tip 1H; ZE 34; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

10. Št. 3002. Lonec, oblikovni tip 2F; ZE 35; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

7. No. 7887. Square-section stem decorated with incisions; one end hammered flat; pointed end shaped as a square file. CU 219.

8. No. 7938. *Stylus*, circular in section.

Table 7

1. No. 7919. Pivot, looped staple used for bolt. CU 179.

2. No. 7920. Pivot, looped staple used for bolt. CU 179.

3. No. 7939. Triangular chain-link.

4. No. 6953. Incomplete sheet disc, strainer; roughly pierced holes from which the metal has not been fully removed.

5. No. 6951. Horseshoe-nail with pyramidal head. CU 160.

6. No. 6513. Nail with square head. Heavily corroded, consistent with fire damage.

7. No. 6514. Horseshoe nail with pyramidal head.

8. No. 6515. Shoe-nail. CU 160.

9. No. 7916. Shoe-nail.

10. No. 6516. Square-headed nail.

11. No. 6957. Round rivet decorated with minute incisions.

12. No. 6955. Lace chape, possibly made of brass.

13. No. 7937. Square pendant with enamel inset representing two birds facing a tree of life; most likely a belt pendant. CU 154.

14. No. 7921. Bolt. CU 178.

Table 8

1. No. 4827. Pot - rim type 1F; CU 55, SU 1992/04; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions; smoothened over shoulder; charred remains.

2. No. 3103. Pot - rim type 1F; CU 36; colour: dark exterior, dark interior, dark fabric; fabric additions: limestone, flint; irregular size additions, few additions; wheel thrown; charred remains.

3. No. 7410. Pot - rim type 1F; CU 182, SU 1991/07; colour: light exterior, light interior, dark fabric; irregular size additions, some additions.

4. No. 2758 and 2764. Pot - rim type 1H; CU 32, SU 1992/08; colour: light exterior, light interior, dark fabric; fabric addition: limestone; irregular size additions, some additions; post-treatment on potters-wheel; post-treatment with besom.

5. No. 2599. Pot - rim type 1G; CU 29, SU 1992/06; colour: dark exterior, dark interior, dark fabric; fabric additions: limestone, flint; irregular size additions, some additions.

6. No. 2923. Pot - rim type 2C; CU 34; colour: dark exterior, dark interior, dark fabric; fabric addition: limestone, regular size additions, numerous additions.

7. No. 4836. Pot - rim type 2C; CU 34; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, some additions.

8. No. 2576. Pot - rim type 2F; CU 29, SU 1992/06; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, some additions; charred remains.

9. No. 2922. Pot - rim type 1H; CU 34; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, some additions.

10. No. 3002. Pot - rim type 2F; CU 35; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions.

11. No. 7403. Pot - rim type 2F; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, small amount of additions, regular size additions; wheel thrown.

12. No. 2443. Pot - rim type 2G; CU 28; colour: mixed exterior, mixed interior, dark fabric; fabric addition: flint, regular size additions, small amount of additions.

11. Št. 7403. Lonec, oblikovni tip 2F; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

12. Št. 2443. Lonec, oblikovni tip 2G; ZE 28; barva: lisasta zunaj, lisasta znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

13. Št. 2567. Lonec, oblikovni tip 2G; ZE 28; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, majhna vsebnost.

14. Št. 4531. Lonec, oblikovni tip 2G; ZE 51; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; izdelava: odlomek doglajen.

15. Št. 7572. Lonec, oblikovni tip 2H; ZE 196, SE 1990/19; barva: temna zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen; prismojeni ostanki.

Tabla 9

1. Št. 7559. Lonec, oblikovni tip 2H; ZE 196, SE 1990/19; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen.

2. Št. 7572. Lonec, oblikovni tip 2H; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen.

3. Št. 7390. Lonec, oblikovni tip 2H; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost.

4. Št. 2728. Lonec, oblikovni tip 3D; ZE 31, SE 1992/04; barva: svetla zunaj, temna znotraj, temen enobarven prelom; pustilo: apnenec, enakomerna velikost, velika vsebnost.

5. Št. 1797. Lonec, oblikovni tip 4C; ZE 22; barva: lisasta zunaj, lisasta znotraj, svetel enobarven prelom; pustila: apnenec, kremen, enakomerna velikost, majhna vsebnost; okras: glavničenje.

6. Št. 3099. Lonec, oblikovni tip 4C; ZE 36; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno ustje, okras: glavničenje.

7. Št. 7434. Lonec, oblikovni tip 4C; ZE 184, SE 1991/06; barva: temna zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, srednja vsebnost, neenakomerna velikost; izdelava: odlomek doglajen; prismojeni ostanki.

8. Št. 7861. Lonec, oblikovni tip 4C; ZE 184, SE 1991/06; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen; prismojeni ostanki.

9. Št. 7432. Lonec, oblikovni tip 4C; ZE 184, SE 1991/06; barva: lisasta zunaj, lisasta znotraj, temen enobarven prelom; pustilo: apnenec, srednja vsebnost, enakomerna velikost; prismojeni ostanki.

10. Št. 4149. Lonec, oblikovni tip 5B; ZE 49; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno ustje; prismojeni ostanki.

Tabla 10

1. Št. 4768. Lonec, oblikovni tip 5C; ZE 54; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: odlomek doglajen.

13. No. 2567. Pot - rim type 2G; CU 28; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, few additions.

14. No. 4531. Pot - rim type 2G; CU 51; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions; smoothened shard.

15. No. 7572. Pot - rim type 2H; CU 196, SU 1990/19; colour: dark exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard; charred remains.

Table 9

1. No. 7559. Pot - rim type 2H; CU 196, SU 1990/19; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; smoothened shard.

2. No. 7572. Pot - rim type 2H; CU 182, SU 1991/07; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, irregular size additions; smoothened shard.

3. No. 7390. Pot - rim type 2H; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions.

4. No. 2728. Pot - rim type 3D; CU 31, SU 1992/04; 2.4 × 2.7 × 0.7 cm; colour: light exterior, dark interior, dark fabric; fabric addition: limestone, regular size additions, large amount of additions.

5. No. 1797. Pot - rim type 4C; CU 22; colour: mixed exterior, mixed interior, light fabric; fabric additions: limestone, flint, regular size additions, few additions; post-treatment with comb.

6. No. 3099. Pot - rim type 4C; CU 36; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions; smoothened rim, post-treatment with comb.

7. No. 7434. Pot - rim type 4C; CU 184, SU 1991/06; colour: dark exterior, light interior, light fabric; fabric addition: limestone, some additions, irregular size additions; smoothened shard; charred remains.

8. No. 7861. Pot - rim type 4C; CU 184, SU 1991/06; colour: dark exterior, dark interior, dark fabric; fabric addition: flint, few additions, regular size additions; smoothened shard; charred remains.

9. No. 7432. Pot - rim type 4C; CU 184, SU 1991/06; colour: mixed exterior, mixed interior, dark fabric; fabric addition: limestone, some additions, regular size additions; charred remains.

10. No. 4149. Pot - rim type 5B; CU 49; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions; smoothened rim; charred remains.

Table 10

1. No. 4768. Pot - rim type 5C; CU 54; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions; smoothened shard.

2. No. 7493. Pot - rim type 5D; CU 189; colour: light exterior, light interior, light fabric; fabric addition: limestone, few additions, irregular size additions; smoothened shard; post-treatment with comb

3. No. 3335. Pot - rim type 5E; CU 26; colour: dark exterior, mixed interior, dark fabric; fabric addition: flint, regular size additions, few additions; charred remains.

4. No. 2221. Pot - rim type 5E; CU 26; colour: dark exterior, dark interior, dark fabric; fabric addition: limestone; irregular size additions, some additions; post-treatment with comb; charred remains.

5. No. 2241. Pot - rim type 5E; CU 26; colour: dark exterior,

2. Št. 7493. Lonec, oblikovni tip 5D; ZE 189; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen; okras: glavničenje

3. Št. 3335. Lonec, oblikovni tip 5E; ZE 26; barva: temna zunaj, lisasta znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; prismojeni ostanki.

4. Št. 2221. Lonec, oblikovni tip 5E; ZE 26; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: apnenec; neenakomerna velikost, srednja vsebnost; okras: več vodoravnih pasov, glavničenje; prismojeni ostanki.

5. Št. 2241. Lonec, oblikovni tip 5E; ZE 26; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

6. Št. 2244. Lonec, oblikovni tip 5F; ZE 26; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: apnenec; neenakomerna velikost, majhna vsebnost.

7. Št. 4773. Lonec, oblikovni tip 5G; ZE 54; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

8. Št. 2248. Lonec, oblikovni tip 5E; ZE 39; barva: temna zunaj, lisasta znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost.

9. Št. 4776. Lonec, oblikovni tip 5E; ZE 54; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: odlomek doglajen.

10. Št. 2246. Lonec, oblikovni tip 5G; ZE 26; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

Tabla 11

1. Št. 2444. Lonec, oblikovni tip 5G; ZE 28; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

2. Št. 2687. Lonec, oblikovni tip 5G; ZE 28; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustila: apnenec, kremen, enakomerna velikost, srednja vsebnost.

3. Št. 2462. Lonec, oblikovni tip 5G; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, srednja vsebnost.

4. Št. 2695. Lonec, oblikovni tip 5G; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

5. Št. 2705. Lonec, oblikovni tip 5G; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: hitro kolo.

6. Št. 2978. Lonec, oblikovni tip 5G; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; izdelava: hitro kolo.

7. Št. 3408. Lonec, oblikovni tip 5G; ZE 35; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

8. Št. 4309. Lonec, oblikovni tip 5G; ZE 41; barva: temna zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: odlomek doglajen.

9. Št. 4311. Lonec, oblikovni tip 5G; ZE 41; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, velika vsebnost; izdelava: odlomek doglajen.

dark interior, dark fabric; fabric addition: flint, regular size additions, few additions.

6. No. 2244. Pot - rim type 5F; CU 26; colour: dark exterior, dark interior, dark fabric; fabric addition: limestone; irregular size additions, few additions.

7. No. 4773. Pot - rim type 5G; CU 54; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions.

8. No. 2248. Pot - rim type 5E; CU 39; colour: dark exterior, mixed interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions.

9. No. 4776. Pot - rim type 5E; CU 54; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions; smoothened shard.

10. No. 2246. Pot - rim type 5G; CU 26; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions.

Table 11

1. No. 2444. Pot - rim type 5G; CU 28; colour: light exterior, light interior, dark fabric; fabric addition: flint, regular size additions, few additions.

2. No. 2687. Pot - rim type 5G; CU 28; colour: light exterior, light interior, dark fabric; fabric additions: limestone, flint, regular size additions, some additions.

3. No. 2462. Pot - rim type 5G; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, some additions.

4. No. 2695. Pot - rim type 5G; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions.

5. No. 2705. Pot - rim type 5G; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions; wheel thrown.

6. No. 2978. Pot - rim type 5G; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions; wheel thrown.

7. No. 3408. Pot - rim type 5G; CU 35; colour: dark exterior, dark interior, dark fabric; fabric addition: flint, regular size additions, few additions.

8. No. 4309. Pot - rim type 5G; CU 41; colour: dark exterior, light interior, dark fabric; fabric addition: flint; irregular size additions, some additions; smoothened shard.

9. No. 4311. Pot - rim type 5G; CU 41; colour: light exterior, light interior, dark fabric; fabric addition: flint; irregular size additions, large amount of additions; smoothened shard.

Table 12

1. No. 4770. Pot - rim type 5G; CU 54; colour: light exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, few additions; smoothened shard; charred remains.

2. No. 7391. Untypical; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

3. No. 7383. Pot - rim type 5G; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard.

4. No. 7398. Pot - rim type 5G; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard.

5. No. 1790. Pot - rim type 5H; CU 22; colour: mixed exterior, mixed interior, light fabric; fabric additions: limestone,

Tabla 12

1. Št. 4770. Lonec, oblikovni tip 5G; ZE 54; barva: svetla zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, majhna vsebnost; izdelava: odlomek doglajen; prismojeni ostanki.

2. Št. 7391. Neznačilen lonec; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

3. Št. 7383. Lonec, oblikovni tip 5G; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen.

4. Št. 7398. Lonec, oblikovni tip 5G; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen.

5. Št. 1790. Lonec, oblikovni tip 5H; ZE 22; barva: lisasta zunaj, lisasta znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, majhna vsebnost; okras: več vodoravnih pasov, žlebljenje; prismojeni ostanki.

6. Št. 2231. Lonec, oblikovni tip 5H; ZE 26; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, majhna vsebnost; izdelava: doglajeno preko rame; okras: glavničenje; prismojeni ostanki.

7. Št. 2243. Lonec, oblikovni tip 5H; ZE 26; barva: temna zunaj, lisasta znotraj, temen enobarven prelom; pustilo: apnenec, enakomerna velikost, majhna vsebnost; prismojeni ostanki.

8. Št. 2763. Lonec, oblikovni tip 5H; ZE 30, SE 1992/08; barva: temna zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, enakomerna velikost, srednja vsebnost.

Tabla 13

1. Št. 2893. Lonec, oblikovni tip 5H; ZE 33; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost.

2. Št. 3326. Lonec, oblikovni tip 5H; ZE 39; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; prismojeni ostanki.

3. Št. 3409. Lonec, oblikovni tip 5H; ZE 41; barva: svetla zunaj, temna znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost; prismojeni ostanki.

4. Št. 4828. Lonec, oblikovni tip 5H; ZE 55, SE 1992/04; barva: lisasta zunaj, lisasta znotraj, temen enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, velika vsebnost; izdelava: odlomek doglajen.

5. Št. 7419. Lonec, oblikovni tip 5H; ZE 184, SE 1991/06; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen.

6. Št. 7396. Lonec, oblikovni tip 5H; ZE 182, SE 1991/07; barva: lisasta zunaj, lisasta znotraj, večbarven prelom; pustila: kremen, apnenec, srednja vsebnost, enakomerna velikost; izdelava: odlomek doglajen; prismojeni ostanki.

7. Št. 7576. Lonec, oblikovni tip 5H; ZE 197, SE 1990/14; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen; okras: glavničenje; prismojeni ostanki.

8. Št. 7580. Lonec, oblikovni tip 5H; ZE 198, SE 1990/14; barva: svetla zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, srednja vsebnost, neenakomerna velikost; izdelava: odlomek doglajen; okras: glavničenje; prismojeni ostanki.

flint; irregular size additions, few additions; grooved; charred remains.

6. No. 2231. Pot - rim type 5H; CU 26; colour: dark exterior, dark interior, dark fabric; fabric additions: limestone, flint; irregular size additions, few additions; smoothened over shoulder; post-treatment with comb; charred remains.

7. No. 2243. Pot - rim type 5H; CU 26; colour: dark exterior, mixed interior, dark fabric; fabric addition: limestone, regular size additions, few additions; charred remains.

8. No. 2763. Pot - rim type 5H; CU 30, SU 1992/08; colour: dark exterior, light interior, light fabric; fabric addition: limestone, regular size additions, some additions.

Table 13

1. No. 2893. Pot - rim type 5H; CU 33; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions.

2. No. 3326. Pot - rim type 5H; CU 39; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, some additions; charred remains.

3. No. 3409. Pot - rim type 5H; CU 41; colour: light exterior, dark interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions; charred remains.

4. No. 4828. Pot - rim type 5H; CU 55, SU 1992/04; colour: mixed exterior, mixed interior, dark fabric; fabric additions: limestone, flint; irregular size additions, large amount of additions; smoothened shard.

5. No. 7419. Pot - rim type 5H; CU 184, SU 1991/06; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard.

6. No. 7396. Pot - rim type 5H; CU 182, SU 1991/07; colour: mixed exterior, mixed interior, mixed fabric; fabric additions: limestone, flint, some additions, regular size additions; smoothened shard; charred remains.

7. No. 7576. Pot - rim type 5H; CU 197, SU 1990/14; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; smoothened shard; post-treatment with comb; charred remains.

8. No. 7580. Pot - rim type 5H; CU 198, SU 1990/14; colour: light exterior, dark interior, dark fabric; fabric addition: flint, some additions, irregular size additions; smoothened shard; post-treatment with comb; charred remains.

Table 14

1. No. 7389. Pot - rim type 5H; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; few additions, irregular size additions.

2. No. 6532. Pot - rim type 6D; CU 165, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: limestone, few additions, regular size additions; smoothened shard.

3. No. 2995. Pot - rim type 6E; CU 35; colour: mixed exterior, light interior, dark fabric; fabric addition: flint; irregular size additions, few additions.

4. No. 1587. Pot - rim type 6E; CU 20, SU 1992/05; colour: dark exterior, dark interior, light fabric; fabric addition: limestone; irregular size additions, some additions; grooved; charred remains.

5. No. 4397. Pot - rim type 6E; CU 20, SU 1992/05; colour: light exterior, light interior, dark fabric; fabric addition: limestone; fabric addition: flint; irregular size additions, some additions.

6. No. 4524. Pot - rim type 6E; CU 51; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size

Tabla 14

1. Št. 7389. Lonec, oblikovni tip 5H; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; majhna vsebnost, neenakomerna velikost.

2. Št. 6532. Lonec, oblikovni tip 6D; ZE 165, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen.

3. Št. 2995. Lonec, oblikovni tip 6E; ZE 35; barva: lisasta zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, majhna vsebnost.

4. Št. 1587. Lonec, oblikovni tip 6E; ZE 20, SE 1992/05; barva: temna zunaj, temna znotraj, svetel enobarven prelom; pustilo: apnenec; neenakomerna velikost, srednja vsebnost; okras: poševen pas črt (eden ali več), žlebljenje; prismojeni ostanki.

5. Št. 4397. Lonec, oblikovni tip 6E; ZE 20, SE 1992/05; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: apnenec; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

6. Št. 4524. Lonec, oblikovni tip 6E; ZE 51; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno preko rame; okras: več vodoravnih črt, žlebljenje; prismojeni ostanki.

7. Št. 7385. Lonec, oblikovni tip 6F; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; prismojeni ostanki.

8. Št. 7381. Lonec, oblikovni tip 6F; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, srednja vsebnost, enakomerna velikost.

9. Št. 2224. Lonec, oblikovni tip 6G; ZE 26; barva: lisasta zunaj, lisasta znotraj, temen enobarven prelom; pustilo: apnenec, enakomerna velikost, srednja vsebnost.

Tabla 15

1. Št. 2303. Lonec, oblikovni tip 6G; ZE 27; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost.

2. Št. 2309. Lonec, oblikovni tip 6G; ZE 27; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

3. Št. 2311. Lonec, oblikovni tip 6G; ZE 27; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost.

4. Št. 2446. Lonec, oblikovni tip 6G; ZE 28; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, majhna vsebnost; ena valovita črta, žlebljenje.

5. Št. 2557. Lonec, oblikovni tip 6G; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

6. Št. 2564. Lonec, oblikovni tip 6G; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost; prismojeni ostanki.

7. Št. 4511 in 5414. Lonec, oblikovni tip 6G; ZE 51; barva: temna zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno preko rame.

8. Št. 4522. Lonec, oblikovni tip 6G; ZE 51; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno preko rame.

additions, some additions; smoothened over shoulder; grooved; charred remains.

7. No. 7385. Pot - rim type 6F; CU 182, SU 1991/07; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, irregular size additions; charred remains.

8. No. 7381. Pot - rim type 6F; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: limestone, some additions, regular size additions.

9. No. 2224. Pot - rim type 6G; CU 26; colour: mixed exterior, mixed interior, dark fabric; fabric addition: limestone, regular size additions, some additions.

Table 15

1. No. 2303. Pot - rim type 6G; CU 27; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions.

2. No. 2309. Pot - rim type 6G; CU 27; colour: light exterior, light interior, dark fabric; fabric addition: flint; irregular size additions, some additions.

3. No. 2311. Pot - rim type 6G; CU 27; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions.

4. No. 2446. Pot - rim type 6G; CU 28; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, few additions; grooved wave-line.

5. No. 2557. Pot - rim type 6G; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions.

6. No. 2564. Pot - rim type 6G; CU 28; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions; charred remains.

7. No. 4511 and 5414. Pot - rim type 6G; CU 51; colour: dark exterior, mixed interior, light fabric; fabric addition: flint; irregular size additions, some additions; smoothened over shoulder.

8. No. 4522. Pot - rim type 6G; CU 51; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, some additions; smoothened over shoulder.

Table 16

1. No. 4534. Pot - rim type 6G; CU 51; colour: mixed exterior, mixed interior, light fabric; fabric addition: flint; irregular size additions, some additions; smoothened over shoulder; charred remains.

2. No. 7393. Pot - rim type 6G; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions.

3. No. 7395. Pot - rim type 6G; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard.

4. No. 7427. Pot - rim type 7A; CU 184, SU 1991/06; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, regular size additions; wheel thrown; charred remains.

5. No. 6470. Pot - rim type 7E; CU 100; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, irregular size additions; smoothened over shoulder.

6. No. 2306. Pot - rim type 8C; CU 27; colour: light exterior, light interior, dark fabric; fabric addition: limestone, regular size additions, few additions.

7. No. 2459. Pot - rim type 8C; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions.

8. No. 2464. Pot - rim type 8C; CU 28; colour: dark exterior,

Tabla 16

1. Št. 4534. Lonec, oblikovni tip 6G; ZE 51; barva: lisasta zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost; izdelava: doglajeno preko rame; prismojeni ostanki.

2. Št. 7393. Lonec, oblikovni tip 6G; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost.

3. Št. 7395. Lonec, oblikovni tip 6G; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen.

4. Št. 7427. Lonec, oblikovni tip 7A; ZE 184, SE 1991/06; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo; prismojeni ostanki.

5. Št. 6470. Lonec, oblikovni tip 7E; ZE 100; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: doglajeno preko rame.

6. Št. 2306. Lonec, oblikovni tip 8C; ZE 27; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: apnenec, enakomerna velikost, majhna vsebnost.

7. Št. 2459. Lonec, oblikovni tip 8C; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

8. Št. 2464. Lonec, oblikovni tip 8C; ZE 28; barva: temna zunaj, lisasta znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; prismojeni ostanki.

9. Št. 3093. Lonec, oblikovni tip 8C; ZE 36; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, majhna vsebnost; izdelava: odlomek doglajen.

Tabla 17

1. Št. 3387. Lonec, oblikovni tip 8C; ZE 41; barva: svetla zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, srednja vsebnost; prismojeni ostanki.

2. Št. 3936. Lonec, oblikovni tip 8C; ZE 47; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; prismojeni ostanki.

3. Št. 4504. Lonec, oblikovni tip 8C; ZE 51; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen; neenakomerna velikost, majhna vsebnost; izdelava: doglajeno preko rame; prismojeni ostanki.

4. Št. 3939. Lonec, oblikovni tip 8C; ZE 47; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen; neenakomerna velikost, srednja vsebnost; izdelava: hitro kolo.

5. Št. 7060. Lonec, oblikovni tip 8C; ZE 165, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: hitro kolo.

6. Št. 2887. Lonec, oblikovni tip 9B; ZE 33; barva: svetla zunaj, temna znotraj, svetel enobarven prelom; pustilo: apnenec, enakomerna velikost, majhna vsebnost; prismojeni ostanki.

7. Št. 4529. Lonec, oblikovni tip 9B; ZE 51; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustila: apnenec, kremen, enakomerna velikost, velika vsebnost; izdelava: odlomek doglajen; več vodoravnih pasov, okras: glavničenje; prismojeni ostanki.

8. Št. 1588. Lonec, oblikovni tip 9B; ZE 20, SE 1992/05; barva: temna zunaj, temna znotraj, temen enobarven prelom; mixed interior, dark fabric; fabric addition: flint, regular size additions, few additions; charred remains.

9. No. 3093. Pot - rim type 8C; CU 36; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, few additions; smoothened shard.

Table 17

1. No. 3387. Pot - rim type 8C; CU 41; colour: light exterior, mixed interior, light fabric; fabric addition: flint, regular size additions, some additions; charred remains.

2. No. 3936. Pot - rim type 8C; CU 47; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions; charred remains.

3. No. 4504. Pot - rim type 8C; CU 51; colour: light exterior, light interior, light fabric; fabric addition: flint; irregular size additions, few additions; smoothened over shoulder; charred remains.

4. No. 3939. Pot - rim type 8C; CU 47; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint; irregular size additions, some additions; wheel thrown.

5. No. 7060. Pot - rim type 8C; CU 165, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; wheel thrown.

6. No. 2887. Pot - rim type 9B; CU 33; colour: light exterior, dark interior, light fabric; fabric addition: limestone, regular size additions, few additions; charred remains.

7. No. 4529. Pot - rim type 9B; CU 51; colour: dark exterior, dark interior, dark fabric; fabric additions: limestone, flint, regular size additions, large amount of additions; smoothened shard; post-treatment with comb; charred remains.

8. No. 1588. Pot - rim type 9B; CU 20, SU 1992/05; colour: dark exterior, dark interior, dark fabric; fabric addition: limestone; irregular size additions, few additions; grooved; charred remains.

9. No. 7382. Pot - rim type 9B; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, some additions, regular size additions.

10. No. 4303. Pot - rim type 10A; CU 41; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions; wheel thrown.

11. No. 7087. Untypical; CU 189; colour: dark exterior, dark interior, dark fabric; fabric addition: limestone, large amount of additions, irregular size additions; wheel thrown.

Table 18

1. No. 7408. Pot - rim type 10B; CU 72; colour: dark exterior, dark interior, dark fabric; fabric addition: flint, irregular size additions, few additions.

2. No. 5929. Pot - rim type 10C; CU 73; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions.

3. No. 6932. Untypical; CU 149; colour: light exterior, mixed interior, light fabric; fabric addition: flint, some additions, regular size additions; charred remains.

4. No. 7568. Pot - rim type 10D; CU 196, SU 1990/19; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; smoothened shard.

5. No. 7406. Pot - rim type 10D; CU 182, SU 1991/07; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, regular size additions; wheel thrown; charred remains.

6. No. 6305. Untypical; CU 84; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

pustilo: apnenec; neenakomerna velikost, majhna vsebnost; ena vodoravna črta, poševen pas črt (eden ali več), žlebljenje; prismojeni ostanki.

9. Št. 7382. Lonec, oblikovni tip 9B; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, srednja vsebnost, enakomerna velikost.

10. Št. 4303. Lonec, oblikovni tip 10A; ZE 41; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; izdelava: hitro kolo.

11. Št. 7087. Neznačilen lonec; ZE 189; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: apnenec, velika vsebnost, neenakomerna velikost; izdelava: hitro kolo.

Tabla 18

1. Št. 7408. Lonec, oblikovni tip 10B; ZE 72; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, neenakomerna velikost, majhna vsebnost.

2. Št. 5929. Lonec, oblikovni tip 10C; ZE 73; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

3. Št. 6932. Neznačilen lonec; ZE 149; barva: svetla zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, srednja vsebnost, enakomerna velikost; prismojeni ostanki.

4. Št. 7568. Lonec, oblikovni tip 10D; ZE 196, SE 1990/19; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen.

5. Št. 7406. Lonec, oblikovni tip 10D; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo; prismojeni ostanki.

6. Št. 6305. Neznačilen lonec; ZE 84; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

7. Št. 7016. Neznačilen lonec; ZE 100; barva: svetla zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

Tabla 19

1. Št. 6630. Lonec, oblikovni tip 10D; ZE 121; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

2. Št. 6491. Lonec, oblikovni tip 11B; ZE 100; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustila: apnenec, kremen, majhna vsebnost, neenakomerna velikost; izdelava: hitro kolo; okras: metličenje.

3. Št. 7082. Lonec, oblikovni tip 10E; ZE 166; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

4. Št. 3473. Lonec, oblikovni tip 11A; ZE 41; barva: temna zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen; neenakomerna velikost, srednja vsebnost.

5. Št. 7570. Lonec, oblikovni tip 11B; ZE 196, SE 1990/19; barva: temna zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen.

6. Št. 7061. Lonec, oblikovni tip 11B; ZE 165, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

7. Št. 7401. Lonec, oblikovni tip 11B; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

7. No. 7016. Untypical; CU 100; colour: light exterior, mixed interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

Table 19

1. No. 6630. Pot - rim type 10D; CU 121; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

2. No. 6491. Pot - rim type 11B; CU 100; colour: light exterior, light interior, dark fabric; fabric additions: limestone, flint, few additions, irregular size additions; wheel thrown; post-treatment with besom.

3. No. 7082. Pot - rim type 10E; CU 166; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

4. No. 3473. Pot - rim type 11A; CU 41; colour: dark exterior, dark interior, dark fabric; fabric addition: flint; irregular size additions, some additions.

5. No. 7570. Pot - rim type 11B; CU 196, SU 1990/19; colour: dark exterior, mixed interior, light fabric; fabric addition: flint, few additions, irregular size additions; smoothened shard.

6. No. 7061. Pot - rim type 11B; CU 165, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

7. No. 7401. Pot - rim type 11B; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

8. No. 5145. Pot - rim type 11B; CU 61; colour: mixed exterior, mixed interior, light fabric; fabric addition: limestone, regular size additions, few additions.

9. No. 6682. Pot - rim type 11B; CU 121; colour: light exterior, mixed interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

Table 20

1. No. 7238. Pot - rim type 11B; CU 170; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown; charred remains.

2. No. 7086. Pot - rim type 11C; CU 166; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, irregular size additions; wheel thrown.

3. No. 7697. Pot - rim type 11C; CU 216; colour: light exterior, dark interior, mixed fabric, fabric additions: limestone, flint, some additions, regular size additions; smoothened shard; charred remains.

4. No. 4498. Pot - rim type 11D; CU 51; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions; wheel thrown.

5. No. 7405. Pot - rim type 11D; CU 182, SU 1991/07; colour: light exterior, light interior, dark fabric; fabric addition: flint, few additions, regular size additions; wheel thrown; charred remains.

6. No. 7397. Untypical; CU 181; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel thrown.

7. No. 7399. Untypical; CU 182, SU 1991/07; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint, regular size additions, some additions.

8. Št. 5145. Lonec, oblikovni tip 11B; ZE 61; barva: lisasta zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: apnenec, enakomerna velikost, majhna vsebnost.

9. Št. 6682. Lonec, oblikovni tip 11B; ZE 121; barva: svetla zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

Tabla 20

1. Št. 7238. Lonec, oblikovni tip 11B; ZE 170; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo; prismojeni ostanki.

2. Št. 7086. Lonec, oblikovni tip 11C; ZE 166; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: hitro kolo.

3. Št. 7697. Lonec, oblikovni tip 11C; ZE 216; barva: svetla zunaj, temna znotraj, večbarven prelom, pustila: kremen, apnenec, srednja vsebnost, enakomerna velikost; izdelava: odlomek doglajen; prismojeni ostanki.

4. Št. 4498. Lonec, oblikovni tip 11D; ZE 51; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost; izdelava: hitro kolo.

5. Št. 7405. Lonec, oblikovni tip 11D; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo; prismojeni ostanki.

6. Št. 7397. Neznačilen lonec; ZE 181; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

7. Št. 7399. Neznačilen lonec; ZE 182, SE 1991/07; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: kremen, apnenec, enakomerna velikost, srednja vsebnost.

Tabla 21

1. Št. 7130. Pokrov; ZE 167; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

2. Št. 6354. Pokrov; ZE 85; barva: svetla zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo

3. Št. 7044. Pokrov; ZE 164; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

4. Št. 7590. Pokrov; ZE 20, SE 1992/05; barva: svetla zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

5. Št. 6011. Pokrov; ZE 78; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost.

6. Št. 7525. Pokrov; ZE 190; barva: temna zunaj, temna znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; krožne sledi rezanja od podlage; izdelava: hitro kolo.

7. Št. 7454. Pokrov; ZE 185, SE 1991/08; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

8. Št. 7555. Pokrov; ZE 169; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

9. Št. 7023. Pokrov; ZE 185, SE 1991/08; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

Table 21

1. No. 7130. Lid; CU 167; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

2. No. 6354. Lid; CU 85; colour: light exterior, mixed interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown

3. No. 7044. Lid; CU 164; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

4. No. 7590. Lid; CU 20, SU 1992/05; colour: light exterior, mixed interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

5. No. 6011. Lid; CU 78; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions, few additions.

6. No. 7525. Lid; CU 190; colour: dark exterior, dark interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

7. No. 7454. Lid; CU 185, SU 1991/08; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

8. No. 7555. Lid; CU 169; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

9. No. 7023. Lid; CU 185, SU 1991/08; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

10. No. 7116. Lid; CU 167; colour: light exterior, light interior, light fabric; glazed outside; no additions; wheel-thrown.

11. No. 7456. Lid; CU 185, SU 1991/08; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

12. No. 3375. Lid; CU 41; colour: light exterior, light interior, mixed fabric; fabric addition: flint, regular size additions, few additions; wheel-thrown.

13. No. 6611. Lid; CU 120; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

14. No. 7758. Lid; CU 220; colour: light exterior, dark interior, dark fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

15. No. 5288. Bowl; CU 62; colour: light exterior, light interior, dark fabric; fabric additions: limestone, flint, regular size additions, few additions; rib; smoothened shard.

16. No. 7042. Lid; CU 164; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

Table 22

1. No. 5061. Tallow-lamp; CU 60; colour: light exterior, light interior, light fabric; fabric addition: flint, regular size additions; few additions; wheel-thrown.

2. No. 6448. Tallow-lamp; CU 95; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; smoothened shard.

3. No. 7099. Tallow-lamp; CU 166; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; charred remains.

4. No. 6697. Tallow-lamp; CU 122; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

5. No. 6527. Ceramic flat vessel for baking; CU 103, SU

10. Št. 7116. Pokrov; ZE 167; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; zelen lošč zunaj; brez pustila; brez posebnih odtisov na dnu; izdelava: hitro kolo.

11. Št. 7456. Pokrov; ZE 185, SE 1991/08; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; brez posebnih odtisov na dnu; izdelava: hitro kolo.

12. Št. 3375. Pokrov; ZE 41; barva: svetla zunaj, svetla znotraj, večbarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost; izdelava: hitro kolo.

13. Št. 6611. Pokrov; ZE 120; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo

14. Št. 7758. Pokrov; ZE 220; barva: svetla zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

15. Št. 5288. Skleda; ZE 62; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustila: kremen, apnenec, enakomerna velikost, majhna vsebnost; okras: rebro; izdelava: odlomek doglajen.

16. Št. 7042. Pokrov; ZE 164; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

Tabla 22

1. Št. 5061. Lojenka; ZE 60; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, enakomerna velikost; majhna vsebnost; brez posebnih odtisov na dnu.

2. Št. 6448. Lojenka; ZE 95; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: odlomek doglajen; samo znak na dnu.

3. Št. 7099. Lojenka; ZE 166; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; prismojeni ostanki.

4. Št. 6697. Lojenka; ZE 122; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; podložna ploščica brez znaka.

5. Št. 6527. Pekač; ZE 103, SE 1986/03; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; prismojeni ostanki.

6. Št. 5673. Pekač; ZE 67; barva: lisasta zunaj, svetla znotraj, temen enobarven prelom; pustila: kremen, apnenec, neenakomerna velikost, srednja vsebnost; podložna ploščica brez znaka.

7. Št. 6600. Pekač; ZE 117; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, majhna vsebnost, neenakomerna velikost.

Tabla 23

1. Št. 7673. Skleda; ZE 216; barva: lisasta zunaj, svetla znotraj, svetel enobarven prelom; pustila: apnenec, kremen, majhna vsebnost, neenakomerna velikost; izdelava: hitro kolo; prismojeni ostanki.

2. Št. 7829. Skleda; ZE 227; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, srednja vsebnost, enakomerna velikost; brez posebnih odtisov na dnu; izdelava: odlomek doglajen.

3. Št. 6010. Skleda; ZE 78; barva: svetla zunaj, temna znotraj, temen enobarven prelom; pustilo: kremen, enakomerna velikost, majhna vsebnost, izdelava: hitro kolo; prismojeni ostanki.

4. Št. 7526. Lojenka; ZE 190; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; brez posebnih odtisov na dnu.

1986/03; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; charred remains.

6. No. 5673. Ceramic flat vessel for baking; CU 67; colour: mixed exterior, light interior, dark fabric; fabric additions: limestone, flint, irregular size additions, some additions.

7. No. 6600. Ceramic flat vessel for baking; CU 117; colour: light exterior, light interior, light fabric; fabric addition: limestone, few additions, irregular size additions.

Table 23

1. No. 7673. Bowl; CU 216; colour: mixed exterior, light interior, light fabric; fabric additions: limestone, flint, few additions, irregular size additions; wheel-thrown; charred remains.

2. No. 7829. Bowl; CU 227; colour: light exterior, light interior, light fabric; fabric addition: flint, some additions, regular size additions; smoothened shard.

3. No. 6010. Bowl; CU 78; colour: light exterior, dark interior, dark fabric; fabric addition: flint, regular size additions, few additions, wheel-thrown; charred remains.

4. No. 7526. Tallow-lamp; CU 190; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

5. No. 7089. Bowl; CU 166; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

6. No. 5367. Tray; CU 63; colour: light exterior, light interior, light fabric; no additions.

7. No. 7042. Bowl; CU 170; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

8. No. 5286. Bowl; CU 62; colour: light exterior, light interior, dark fabric; fabric addition: flint, irregular size additions, few additions; smoothened shard.

9. No. 3747. Clay kettle; CU 118; colour: light exterior, light interior, light fabric; fabric additions: limestone, flint, some additions, irregular size additions; handmade; grooved; charred remains.

10. No. 6605. Bowl; CU 16; colour: dark exterior, dark interior, light fabric; fabric additions: limestone, flint, some additions, irregular size additions; smoothened shard; charred remains.

Table 24

1. No. 7374. Stove tile with figural theme; CU 180, SU 1994/02; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; charred remains.

2. No. 7334. Stove tile with figural theme; CU 177; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

3. No. 6889. Stove tile with floral theme; CU 141; colour: light exterior, light interior, light fabric, glazed outside; fabric addition: flint, few additions, regular size additions; charred remains.

4. No. 7338. Stove tile with tapestry theme; CU 177; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; charred remains.

5. No. 6376. Stove tile with geometrical theme; CU 85; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

6. No. 7365. Stove tile with floral theme; CU 179; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

7. No. 7333. Bowl tile with rectangular rim; CU 177; colour:

5. Št. 7089. Skleda; ZE 166; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

6. Št. 5367. Pladenj; ZE 63; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; brez pustila.

7. Št. 7042. Skleda; ZE 170; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

8. Št. 5286. Skleda; ZE 62; barva: svetla zunaj, svetla znotraj, temen enobarven prelom; pustilo: kremen, neenakomerna velikost, majhna vsebnost; izdelava: odlomek doglajen.

9. Št. 3747. Kotliček; ZE 118; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustila: kremen, apnenec, srednja vsebnost, neenakomerna velikost; izdelava: prostoročna v celoti; okras: žlebljenje; prismojeni ostanki.

10. Št. 6605. Skleda; ZE 16; barva: temna zunaj, temna znotraj, svetel enobarven prelom; pustila: kremen, apnenec, srednja vsebnost, neenakomerna velikost; izdelava: odlomek doglajen; prismojeni ostanki.

Tabla 24

1. Št. 7374. Oploščena pečnica s figuralnim motivom; ZE 180, SE 1994/02; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; prismojeni ostanki.

2. Št. 7334. Oploščena pečnica s figuralnim motivom; ZE 177; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

3. Št. 6889. Oploščena pečnica s cvetličnim motivom; ZE 141; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom, zelen lošč zunaj; pustilo: kremen, majhna vsebnost, enakomerna velikost; prismojeni ostanki.

4. Št. 7338. Oploščena pečnica s tapetnim motivom; ZE 177; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; prismojeni ostanki,.

5. Št. 6376. Oploščena pečnica z geometrijskim motivom; ZE 85; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

6. Št. 7365. Oploščena pečnica s cvetličnim motivom; ZE 179; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

7. Št. 7333. Skledasta pečnica s kvadratnim ustjem; ZE 177; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

8. Št. 5062. Oploščena pečnica; ZE 60; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: apnenec, enakomerna velikost, majhna vsebnost.

9. Št. 6619. Oploščena pečnica s cvetličnim motivom; ZE 120; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

10. Št. 7336. Oploščena pečnica s figuralnim motivom; ZE 177; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; prismojeni ostanki.

11. Št. 6568. Neznan predmet, verjetno tulasta pečnica; ZE 109; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, neenakomerna velikost; izdelava: hitro kolo.

light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

8. No. 5062. Stove tile; CU 60; colour: light exterior, light interior, light fabric; fabric addition: limestone, regular size additions, few additions.

9. No. 6619. Stove tile with floral theme; CU 120; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

10. No. 7336. Stove tile with figural theme; CU 177; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; charred remains.

11. No. 6568. Unknown object, probably conical stove tile; CU 109; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, irregular size additions; wheel-thrown.

Table 25

1. No. 7316. Stove tile with figural theme; CU 175; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

2. No. 7218. Bowl stove tile; CU 170; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; wheel-thrown.

3. No. 2517. Jug with bow handle; CU 28; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard.

4. No. 7679. Jug with bow handle; CU 216; colour: mixed exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions; smoothened shard.

5. No. 6317. Jug with bow handle; CU 84; colour: mixed exterior, mixed interior, light fabric; fabric addition: flint, few additions, regular size additions.

6. No. 6782. Jug with bow handle; CU 127; colour: light exterior, light interior, light fabric; no additions; wheel-thrown.

7. No. 7643. Jug with bow handle; CU 213; colour: light exterior, light interior, light fabric; fabric addition: flint, few additions, regular size additions.

8. No. 5387. Lid; CU 63; colour: mixed exterior, dark interior, mixed fabric; fabric addition: flint, irregular size additions, few additions; wheel-thrown.

Tabla 25

1. Št. 7316. Oploščena pečnica s figuralnim motivom; ZE 175; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

2. Št. 7218. Skledasta pečnica; ZE 170; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: hitro kolo.

3. Št. 2517. Locnat vrč; ZE 28; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen; okras: več kratkih vrezov.

4. Št. 7679. Locnat vrč; ZE 216; barva: lisasta zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; izdelava: odlomek doglajen; okras: več kratkih vrezov.

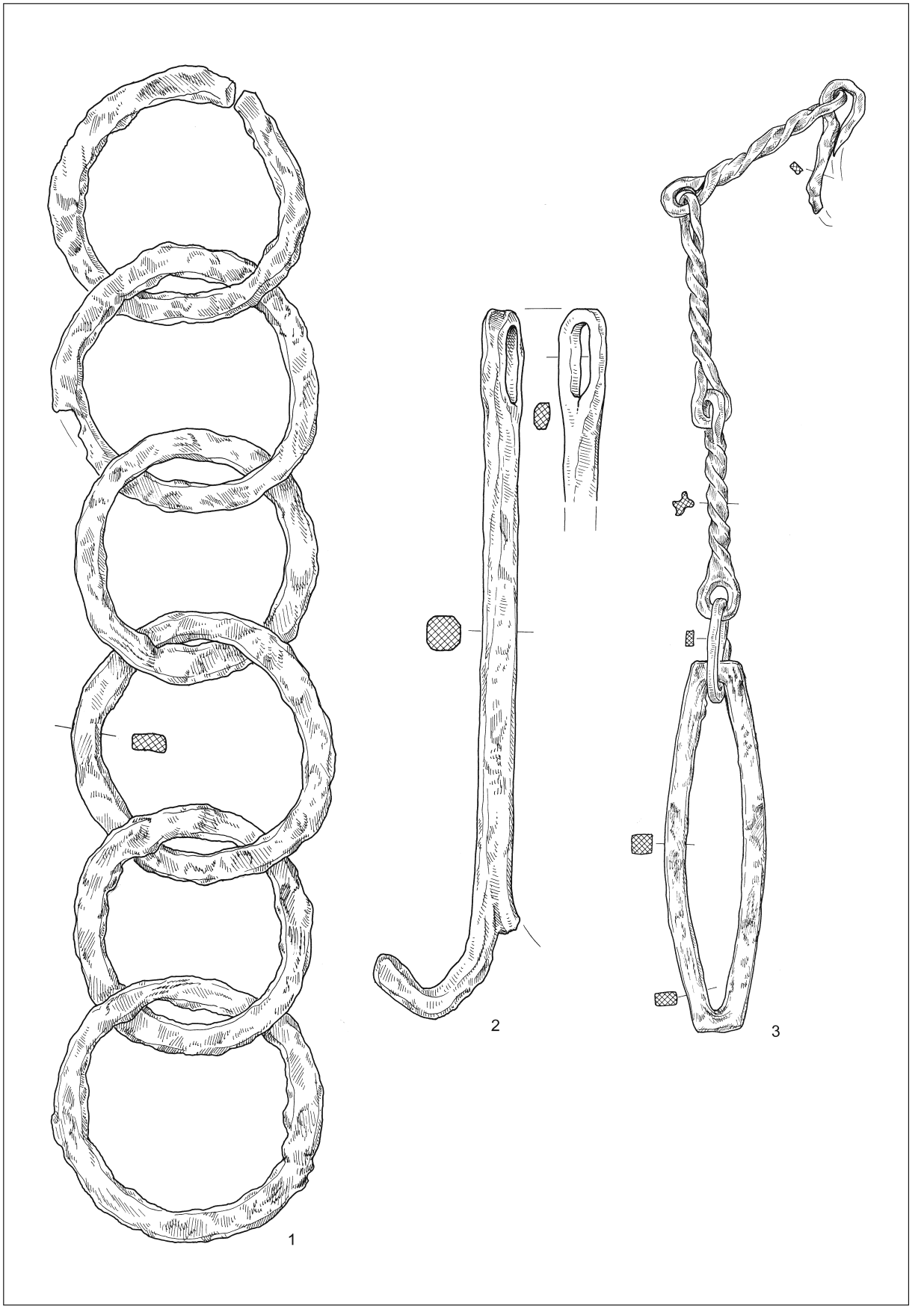
5. Št. 6317. Locnat vrč; ZE 84; barva: lisasta zunaj, lisasta znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost; okras: več kratkih vrezov.

6. Št. 6782. Locnat vrč; ZE 127; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; brez pustila; izdelava: hitro kolo.

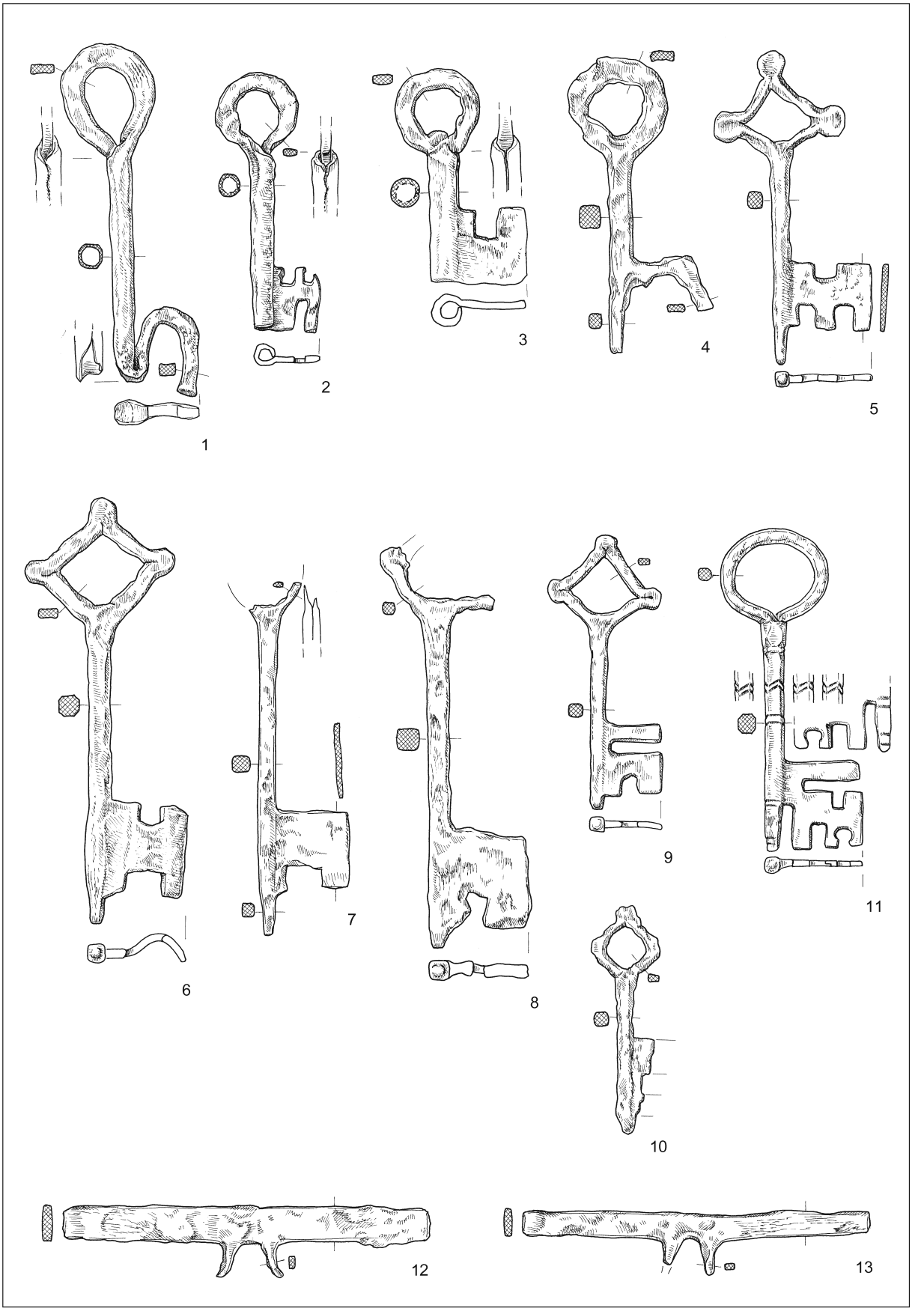
7. Št. 7643. Locnat vrč; ZE 213; barva: svetla zunaj, svetla znotraj, svetel enobarven prelom; pustilo: kremen, majhna vsebnost, enakomerna velikost.

8. Št. 5387. Pokrov; ZE 63; barva: lisasta zunaj, temna znotraj, večbarven prelom; pustilo: kremen, neenakomerna velikost, majhna vsebnost; izdelava: hitro kolo.

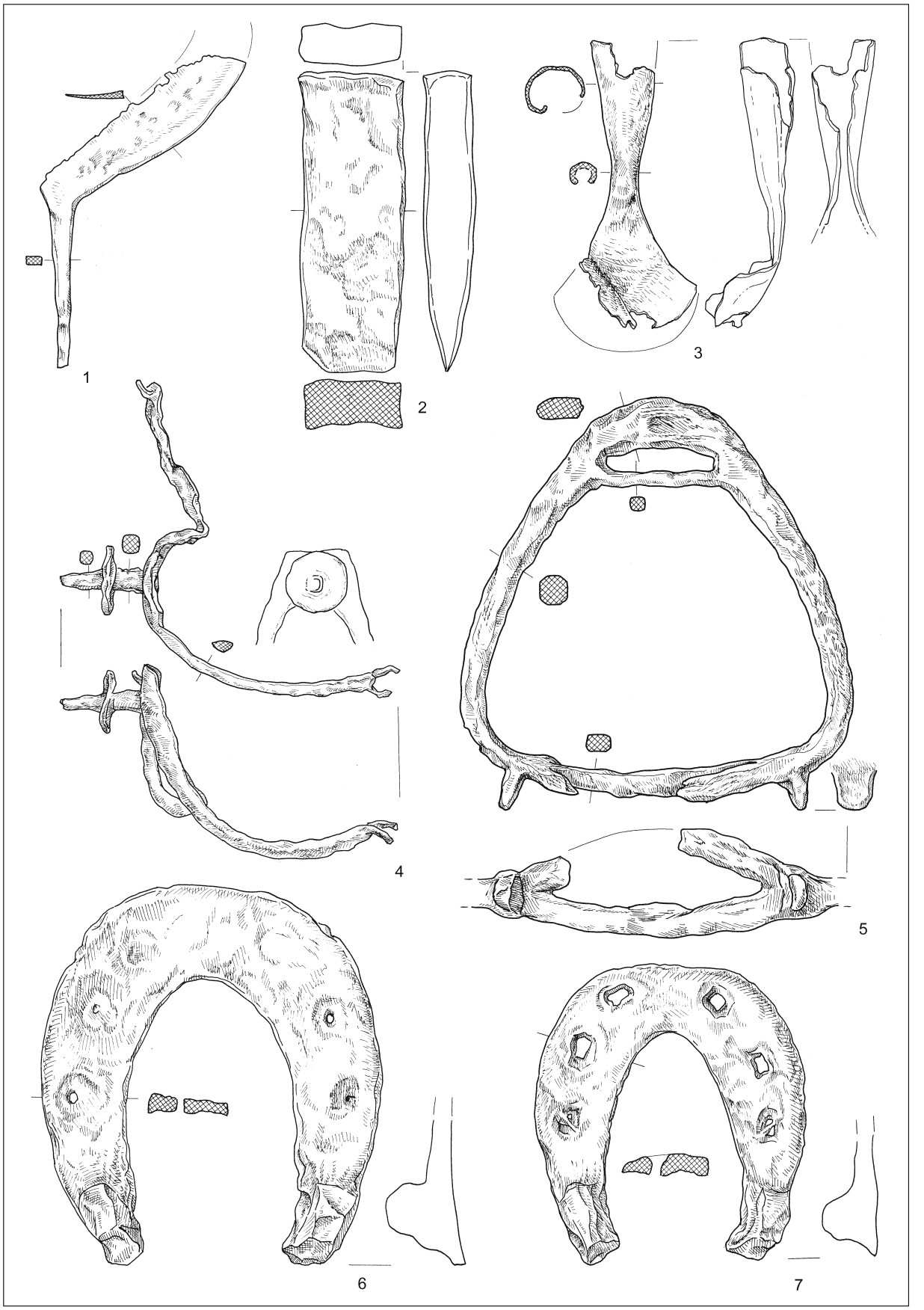
12. TABLE / TABLES



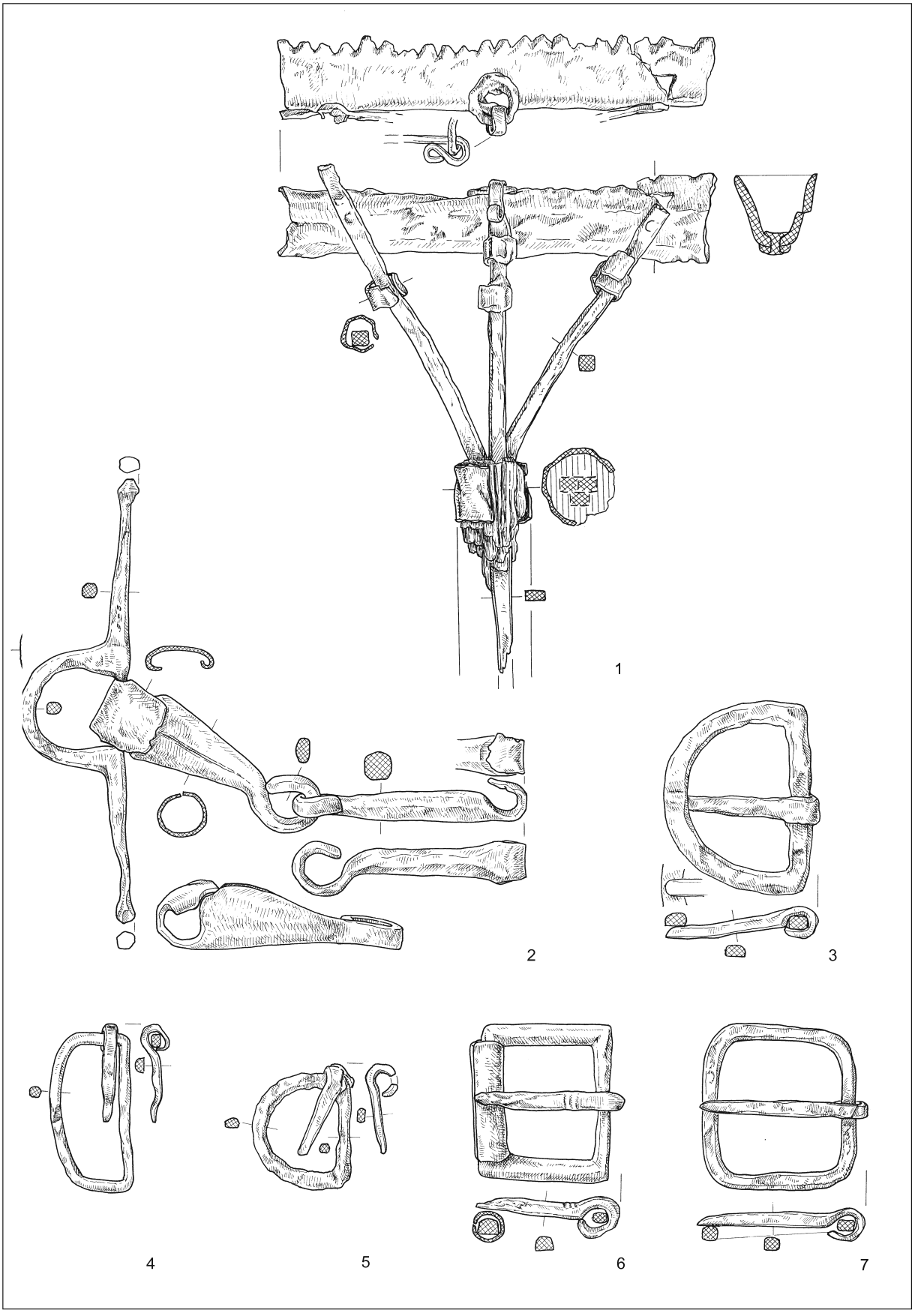
T. 1: Mali grad. Vse železo. M. = 1:2.
T. 1: Mali grad. All iron. Scale 1:2.



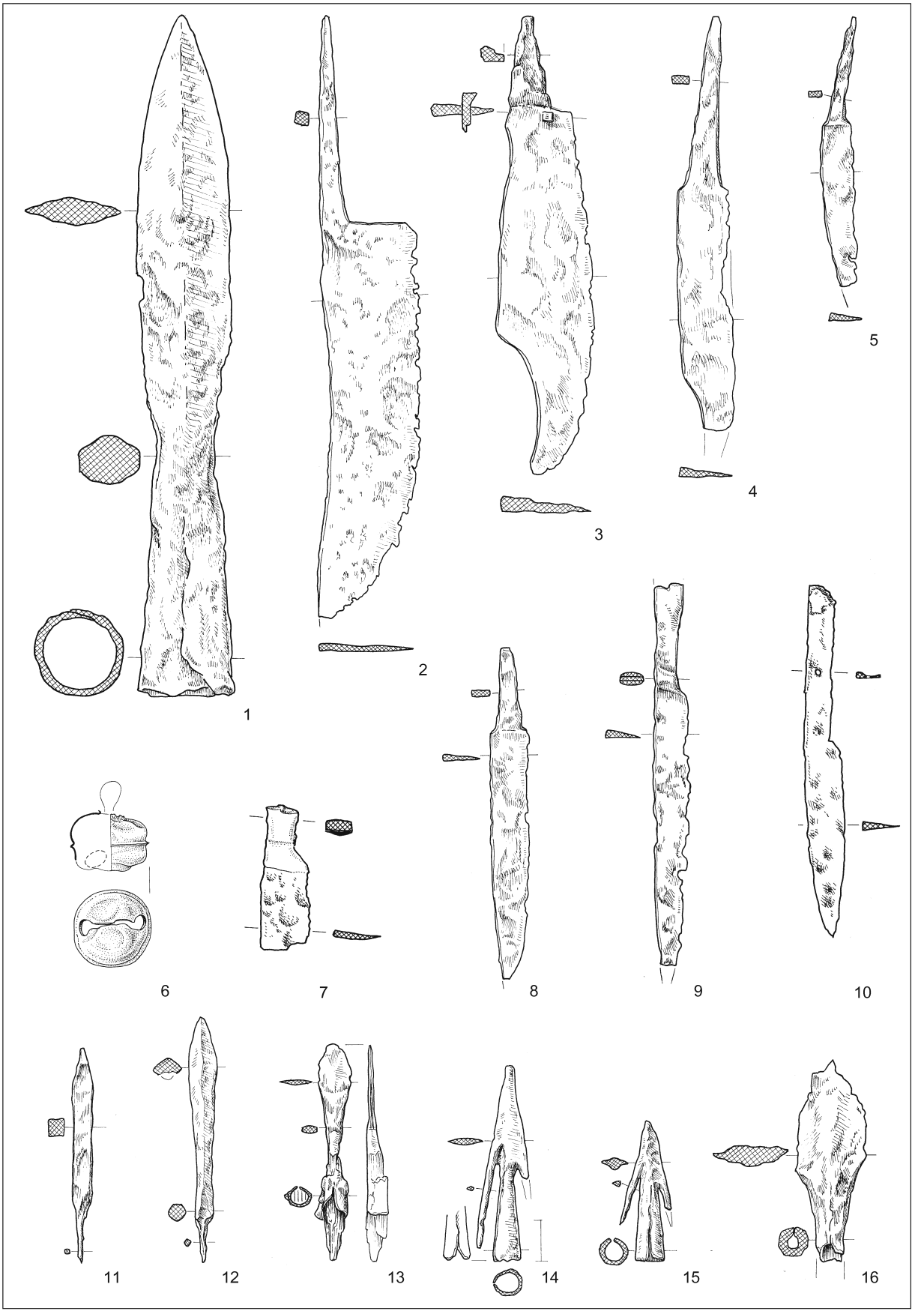
T. 2: Mali grad. Vse železo. M. = 1:2.
T. 2: Mali grad. All iron. Scale 1:2.



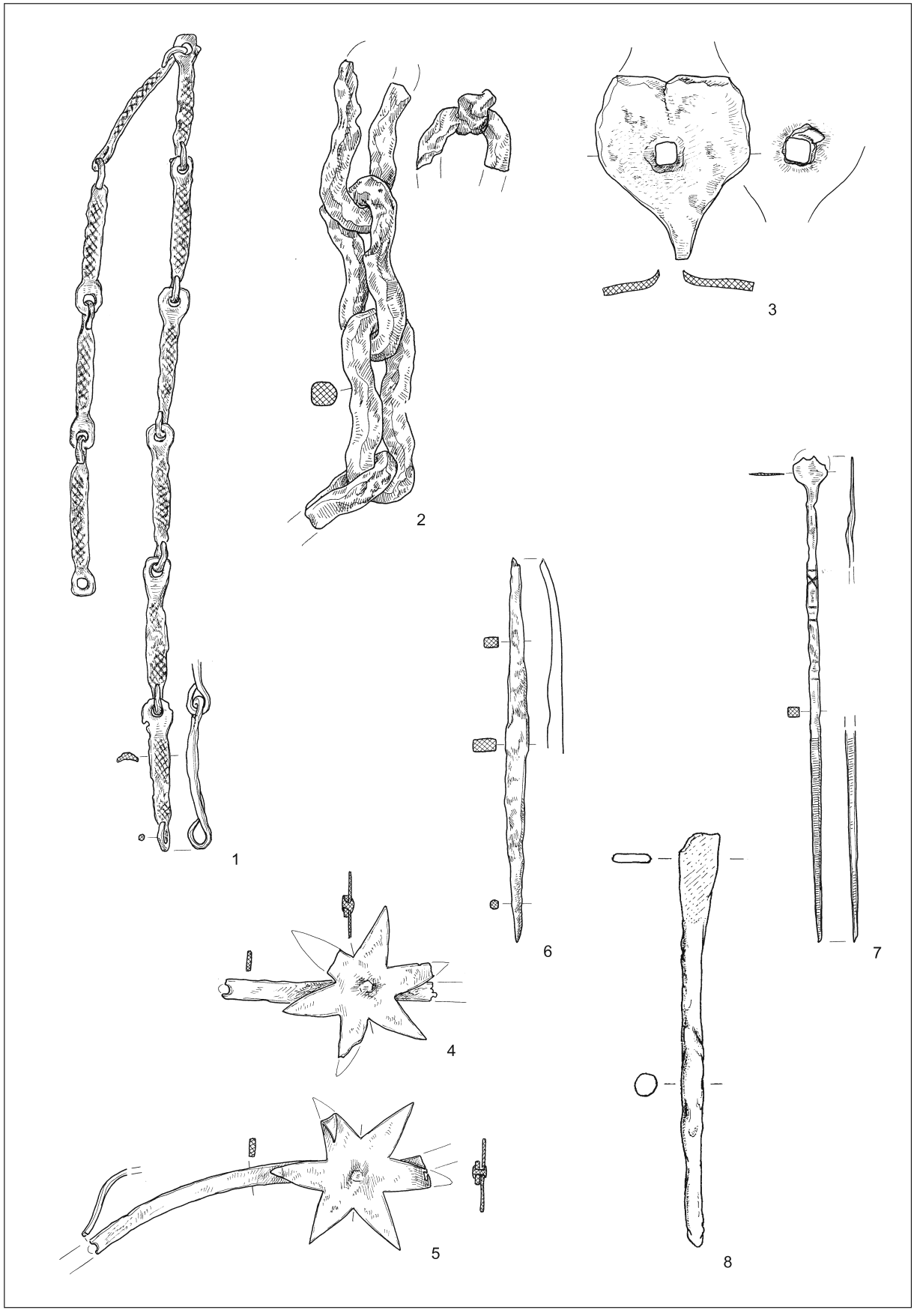
T. 3: Mali grad. Vse železo. M. = 1:2.
T. 3: Mali grad. All iron. Scale 1:2.



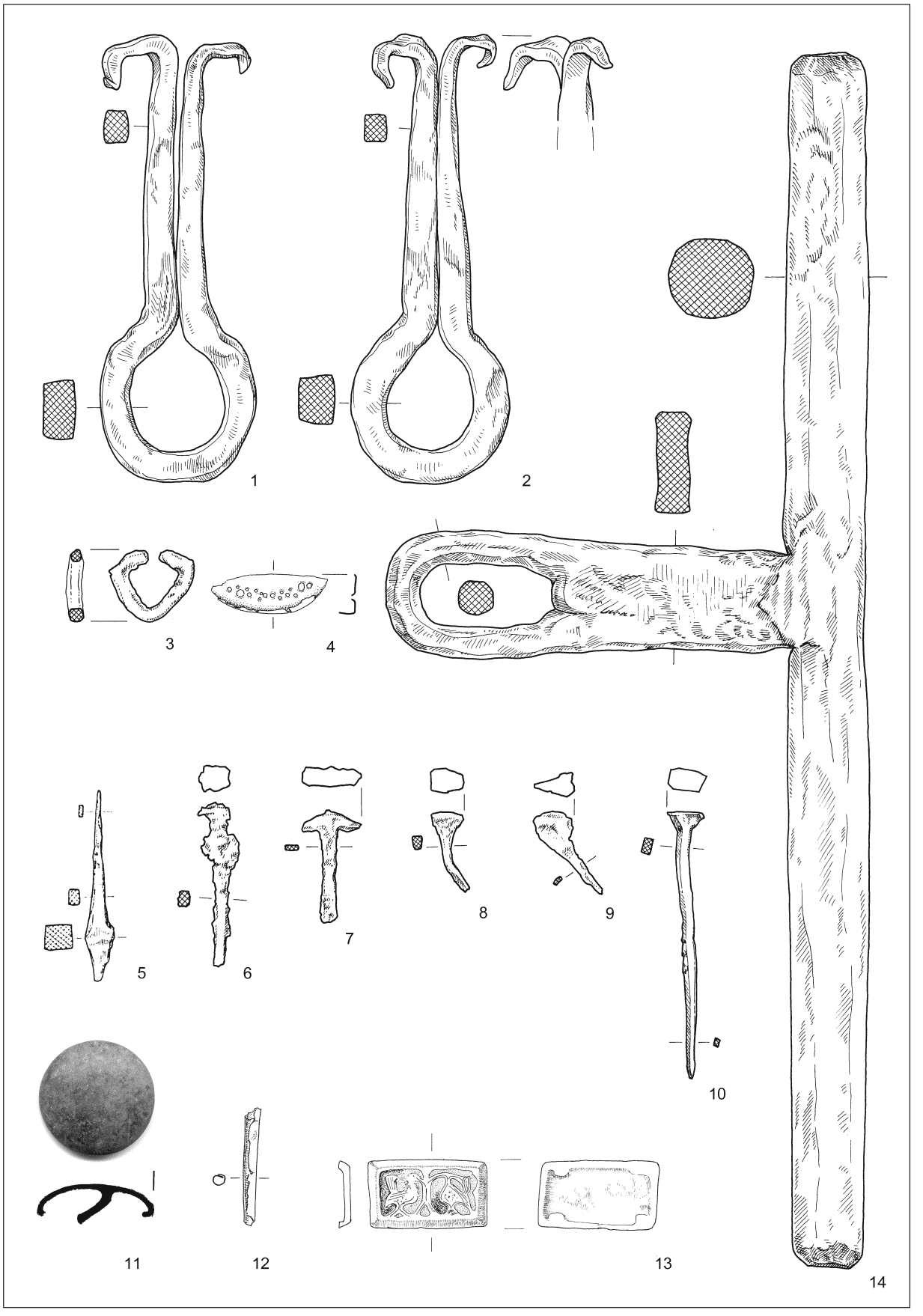
T. 4: Mali grad. 1 železo in les; 2-7 železo. M. = 1:2.
T. 4: Mali grad. 1 iron and wood; 2-7 iron. Scale 1:2.



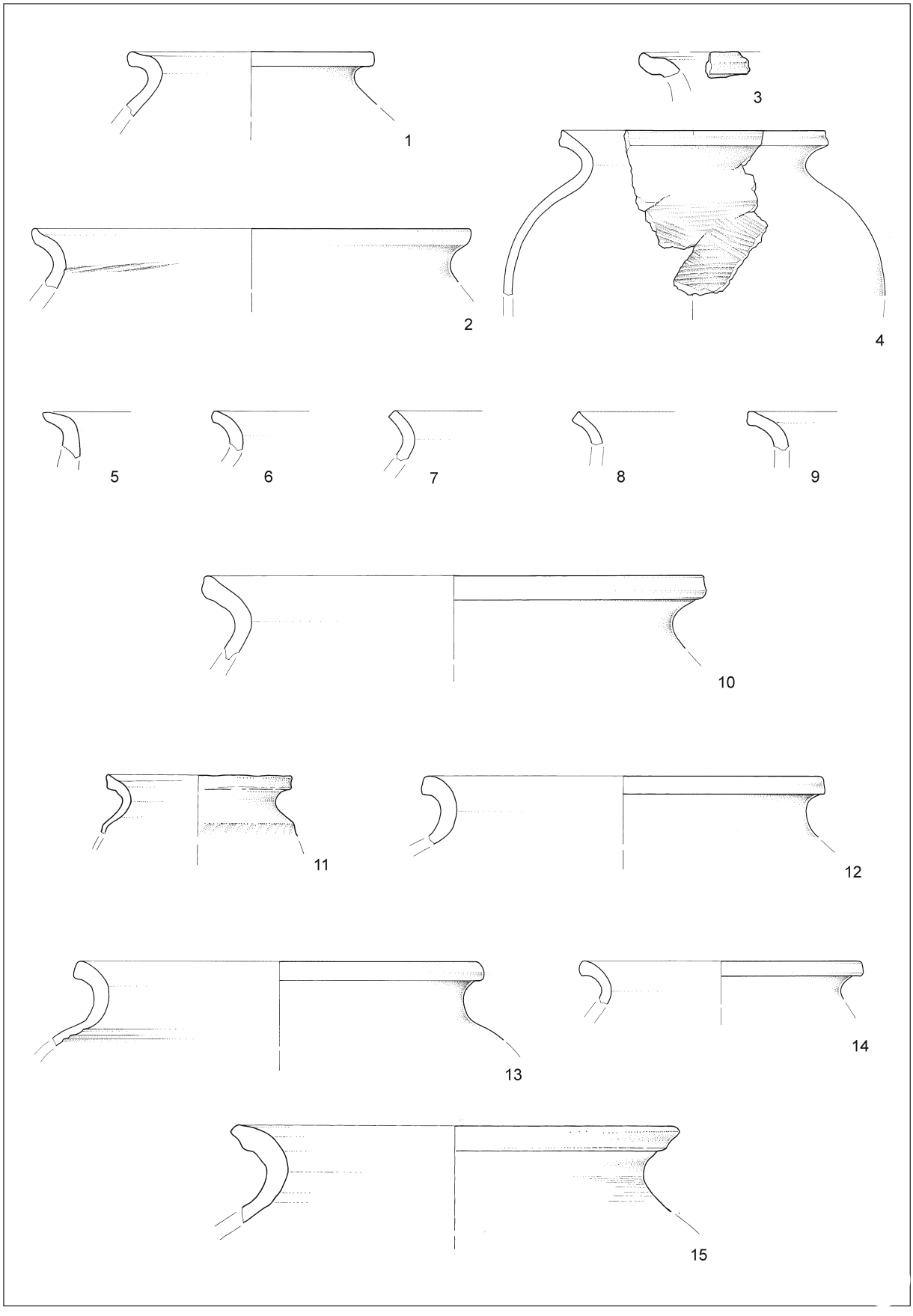
T. 5: Mali grad. 1-5, 8, 10-12, 14-16 železo; 7, 9 železo in bron; 13 železo in les; 6 neznana zlitina. M. = 1:2.
T. 5: Mali grad. 1-5, 8, 10-12, 14-16 iron; 7, 9 iron and bronze; 13 iron and wood; 6 unknown alloy. Scale 1:2.



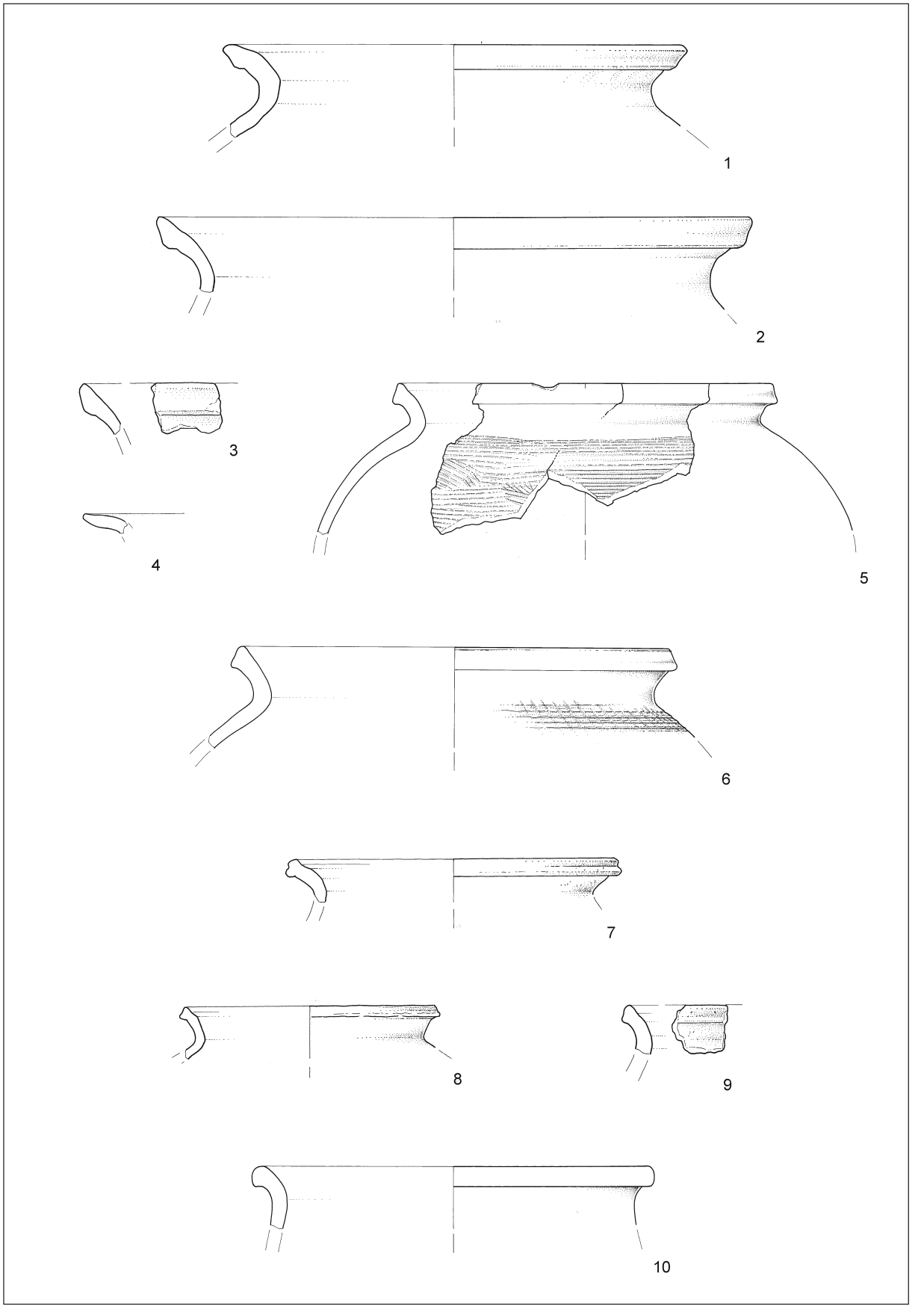
T. 6: Mali grad. 1-2, 4-8 železo; 3 svinec. M. = 1:2 (8 po Sagadin 2001, T. 3: 12).
T. 6: Mali grad. 1-2, 4-8 iron; 3 lead. Scale 1:2 (8 after Sagadin 2001, T. 3: 12).



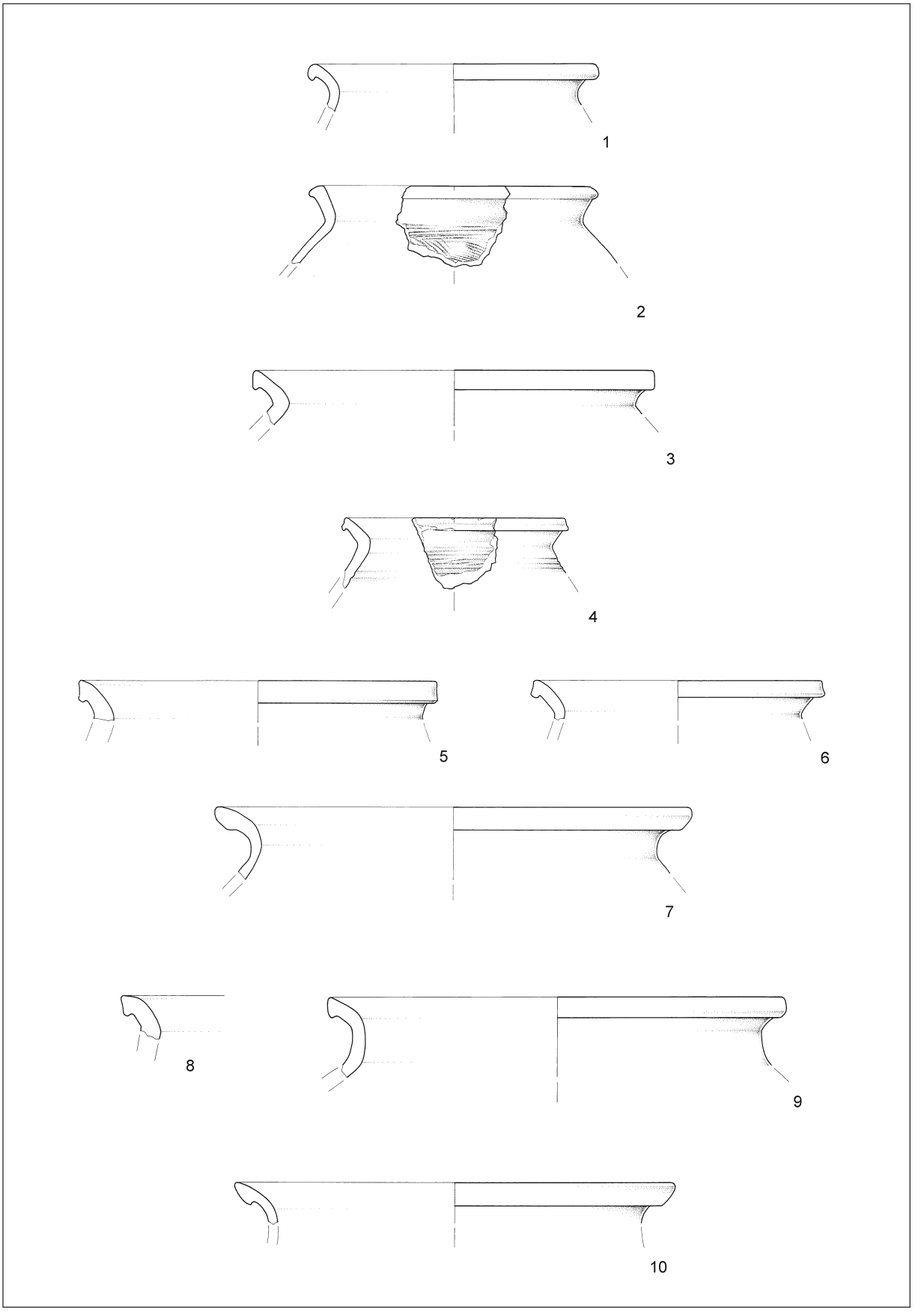
T. 7: Mali grad. 1-3, 5-10, 14 železo; 4, 11 bron; 5 neznana zlitina; 13 bron in emajl. M. = 1:2 (13 po Sagadin 2001, sl. 10).
T. 7: Mali grad. 1-3, 5-10, 14 iron; 4, 11 bronze; 5 unknown alloy; 13 enamelled bronze. Scale 1:2 (13 after Sagadin 2001, sl. 10).



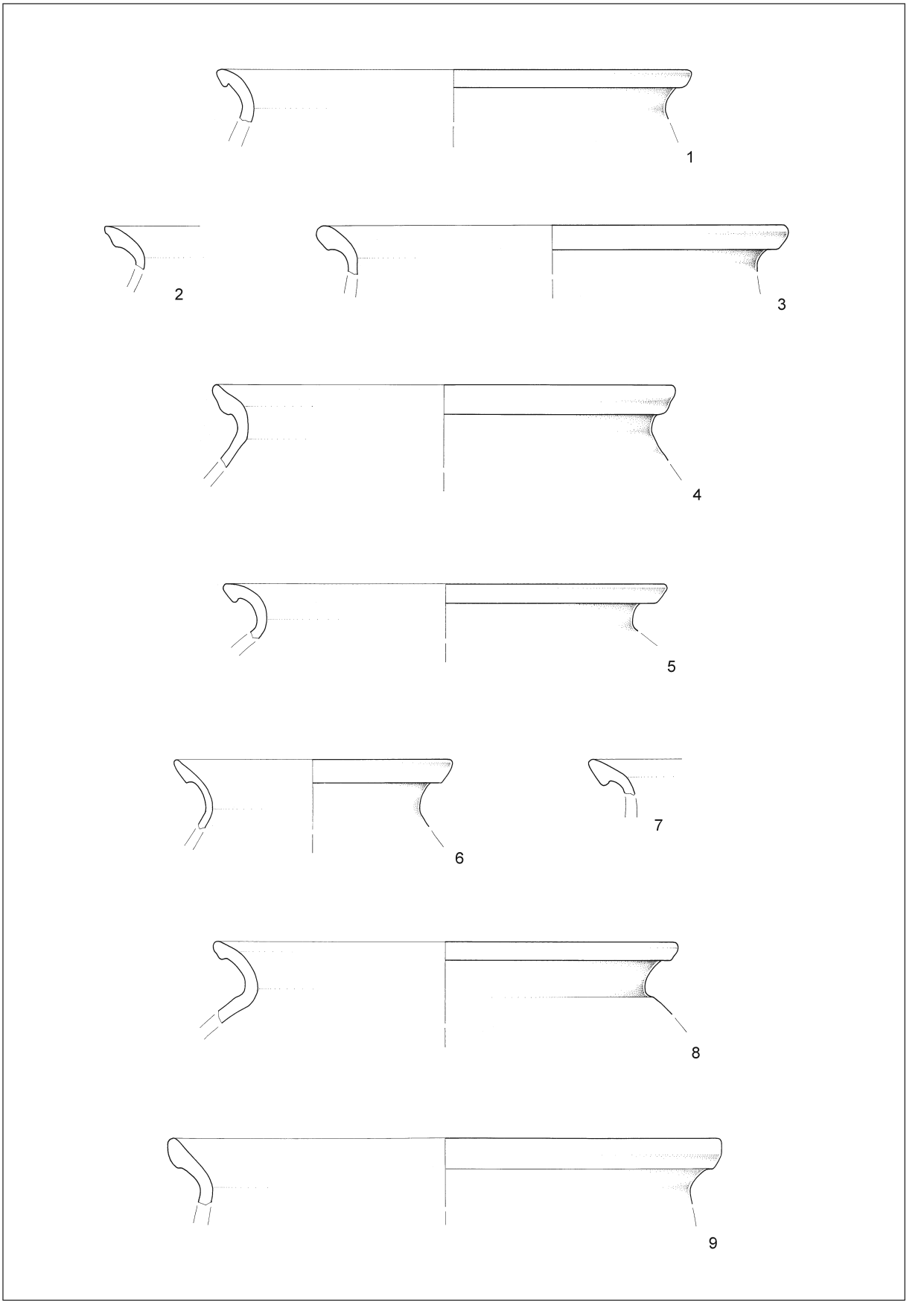
T. 8: Mali grad. Vse lončenina. M. = 1:3.
T. 8: Mali grad. All pottery. Scale 1:3



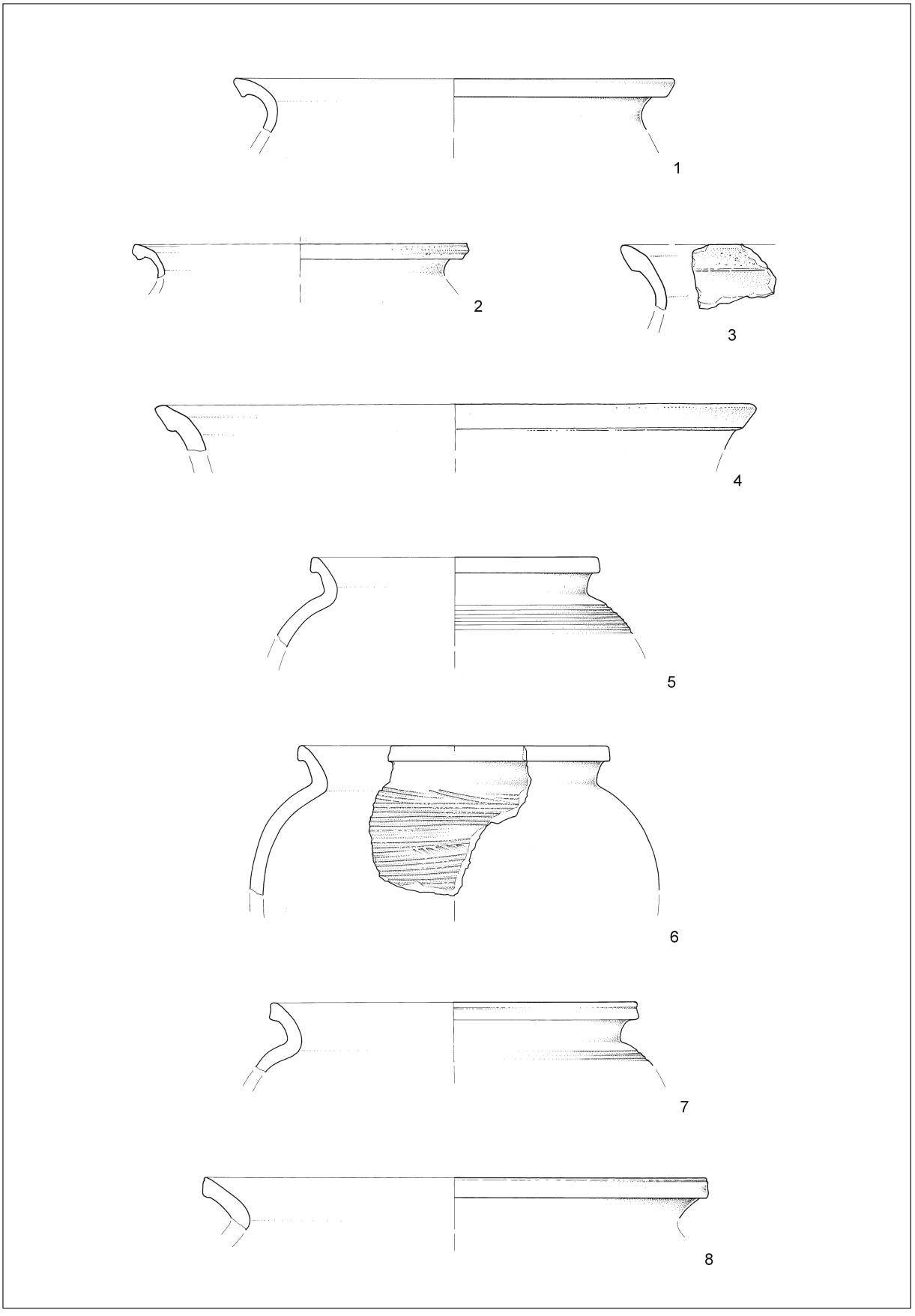
T. 9: Mali grad. Vse lončenina. M. = 1:3.
T. 9: Mali grad. All pottery. Scale 1:3



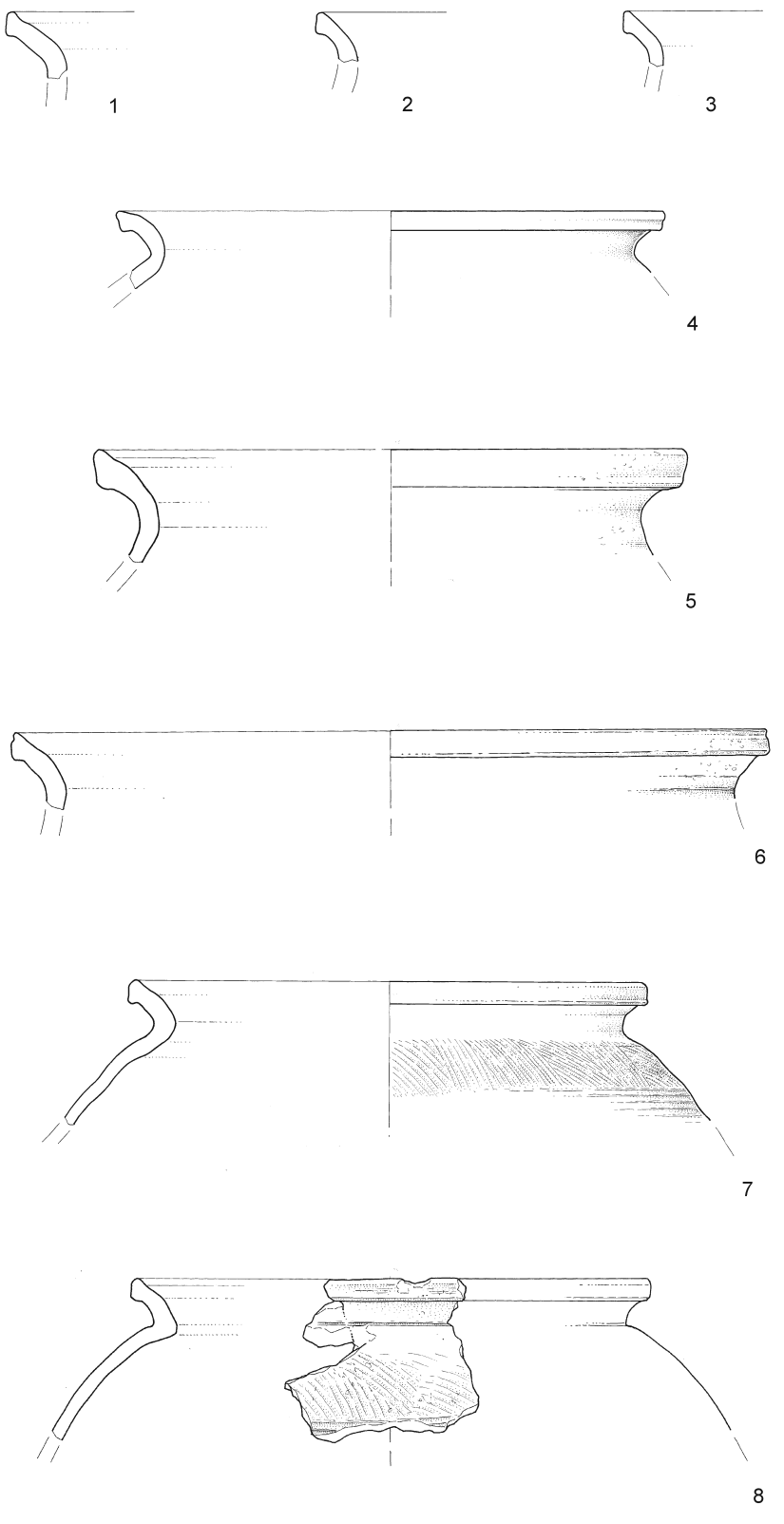
T. 10: Mali grad. Vse lončenina. M. = 1:3.
T. 10: Mali grad. All pottery. Scale 1:3



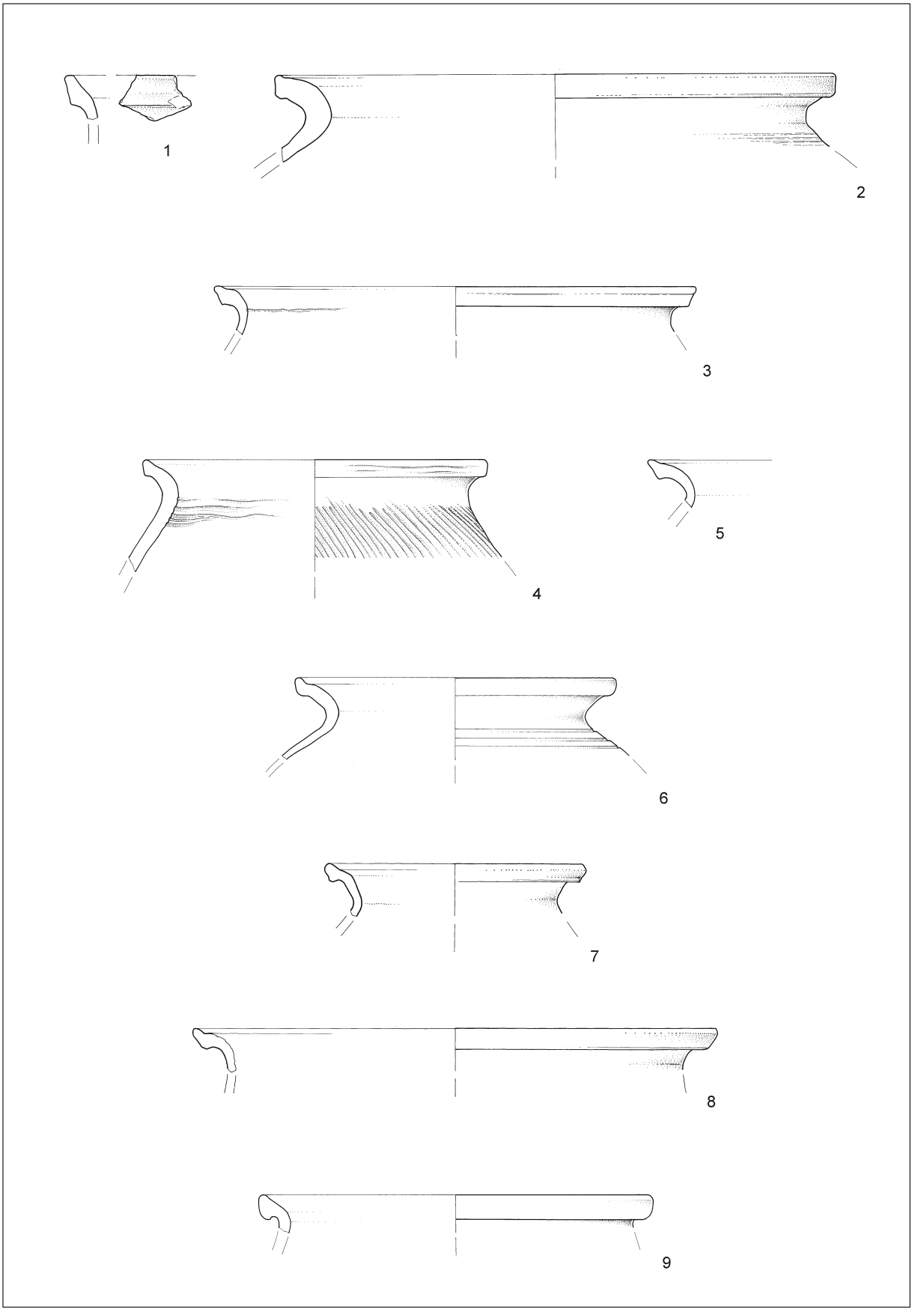
T. 11: Mali grad. Vse lončenina. M. = 1:3.
T. 11: Mali grad. All pottery. Scale 1:3



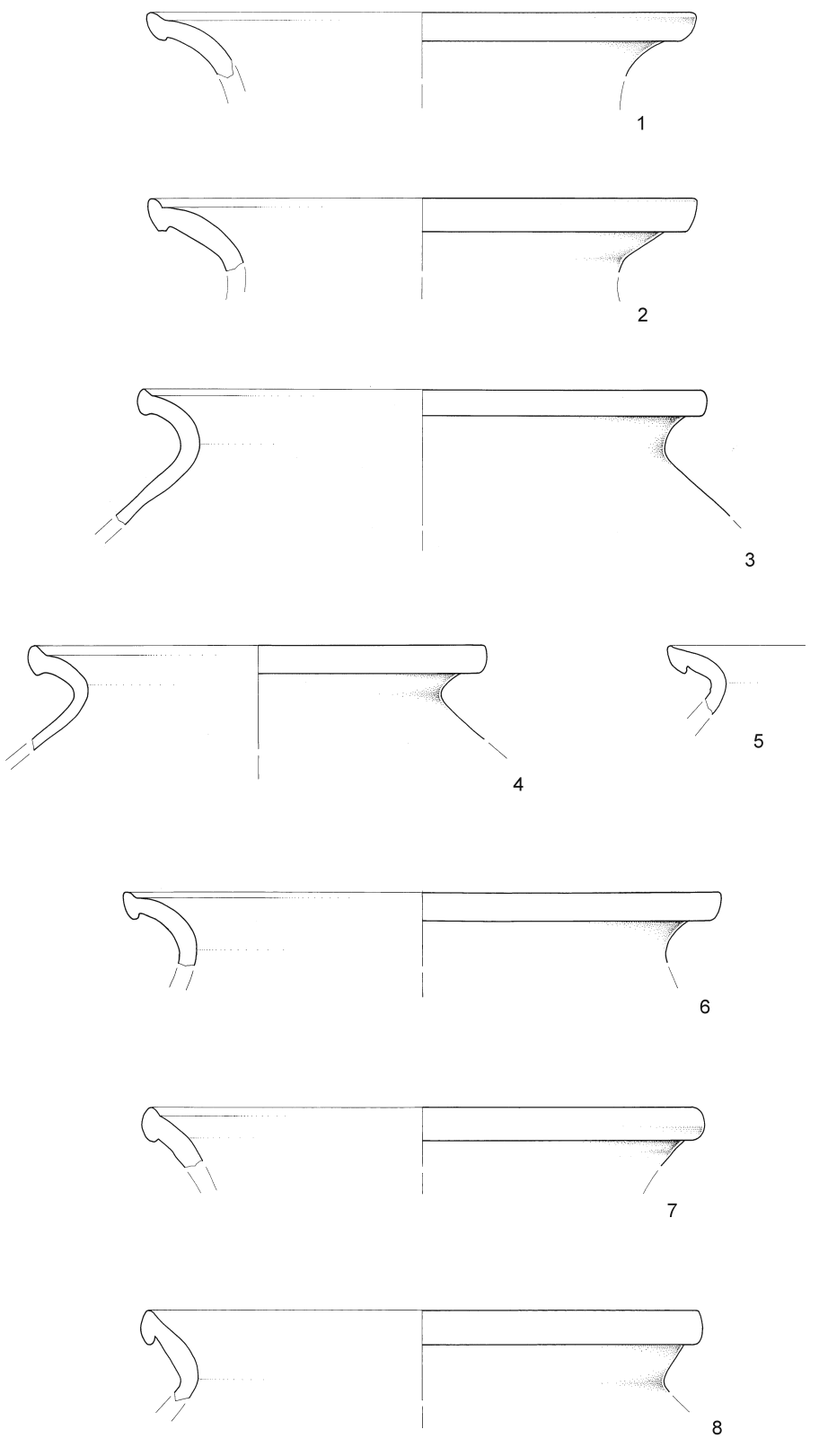
T. 12: Mali grad. Vse lončenina. M. = 1:3.
T. 12: Mali grad. All pottery. Scale 1:3



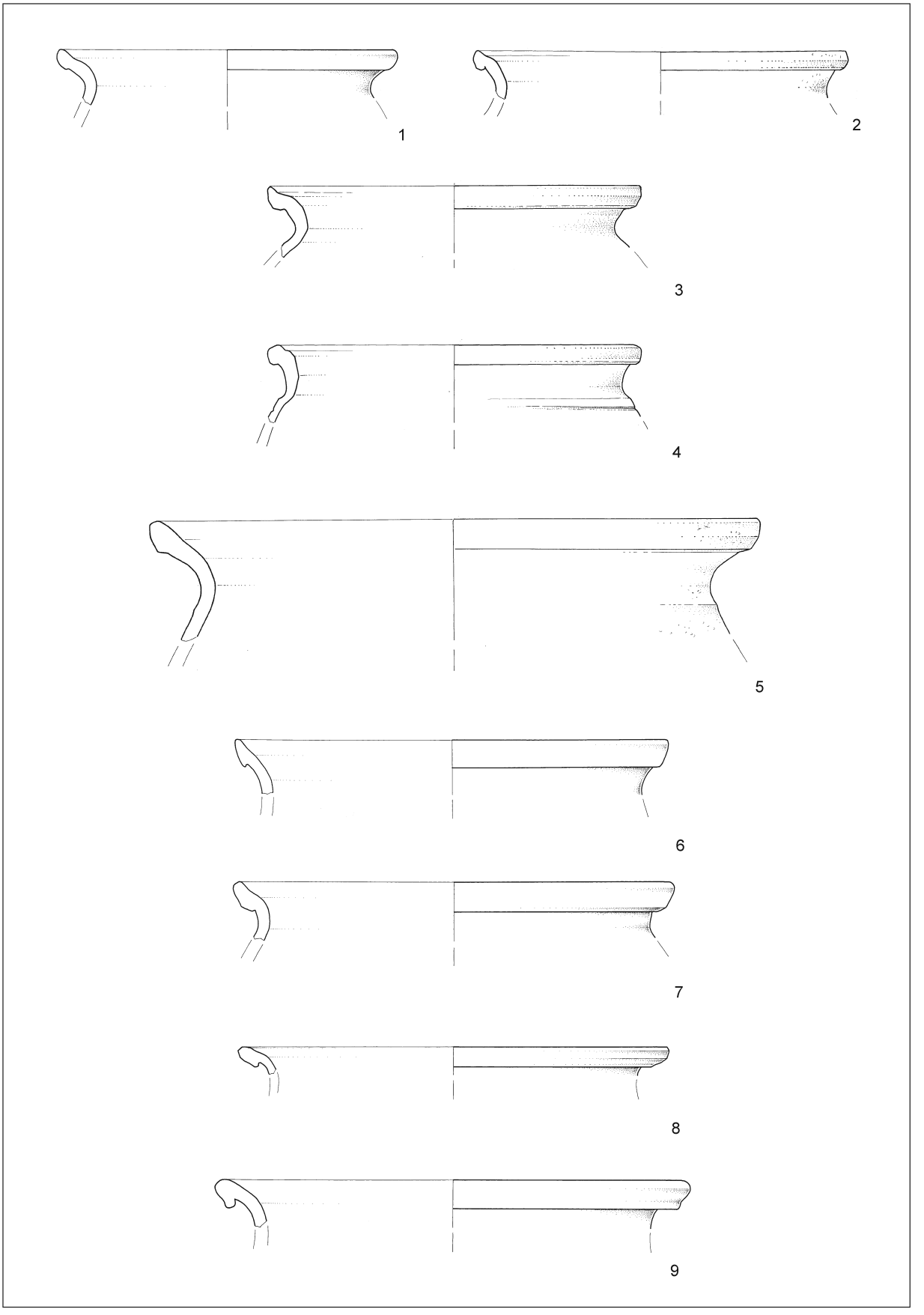
T. 13: Mali grad. Vse lončenina. M. = 1:3.
T. 13: Mali grad. All pottery. Scale 1:3



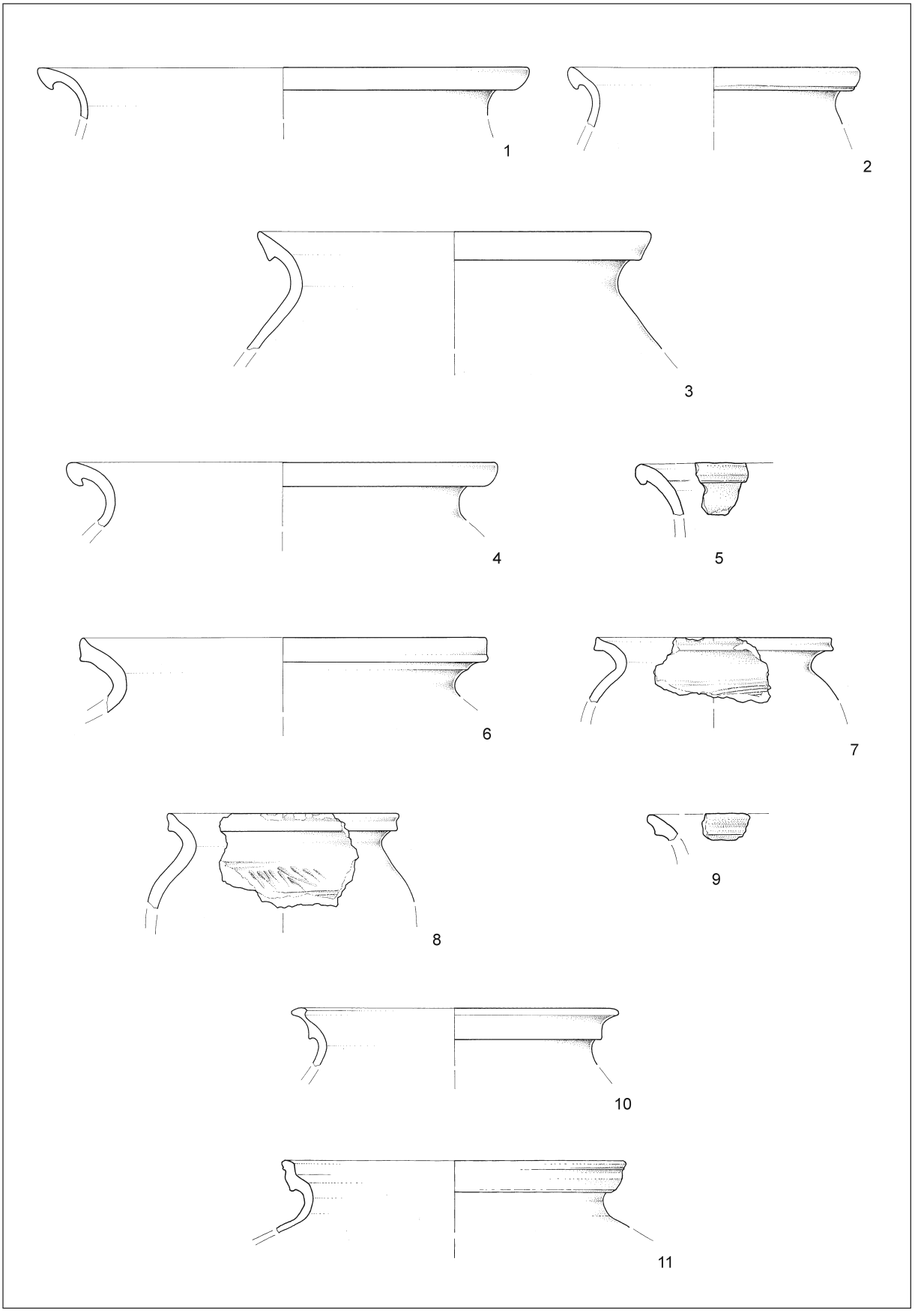
T. 14: Mali grad. Vse lončenina. M. = 1:3.
T. 14: Mali grad. All pottery. Scale 1:3



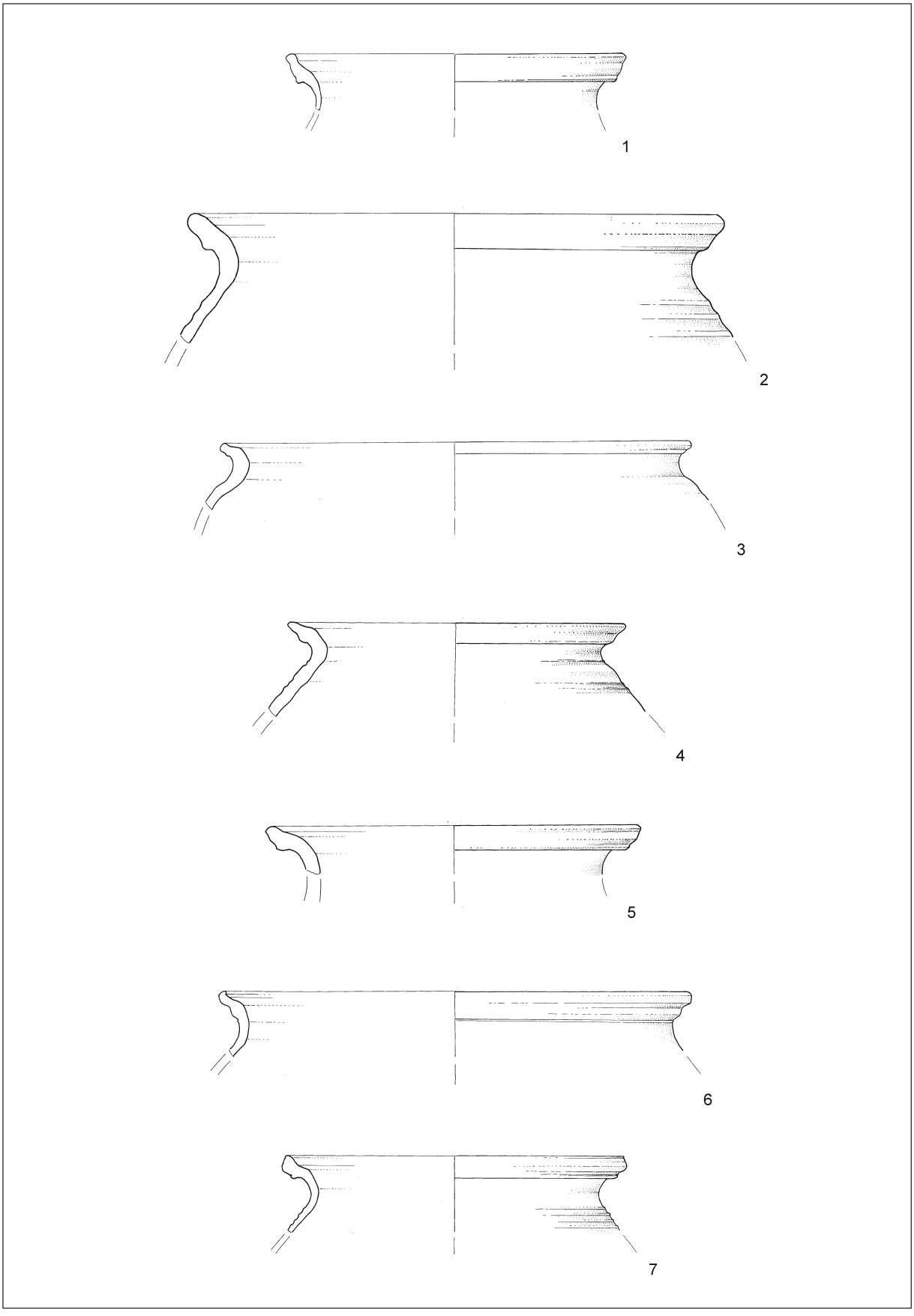
T. 15: Mali grad. Vse lončenina. M. = 1:3.
T. 15: Mali grad. All pottery. Scale 1:3



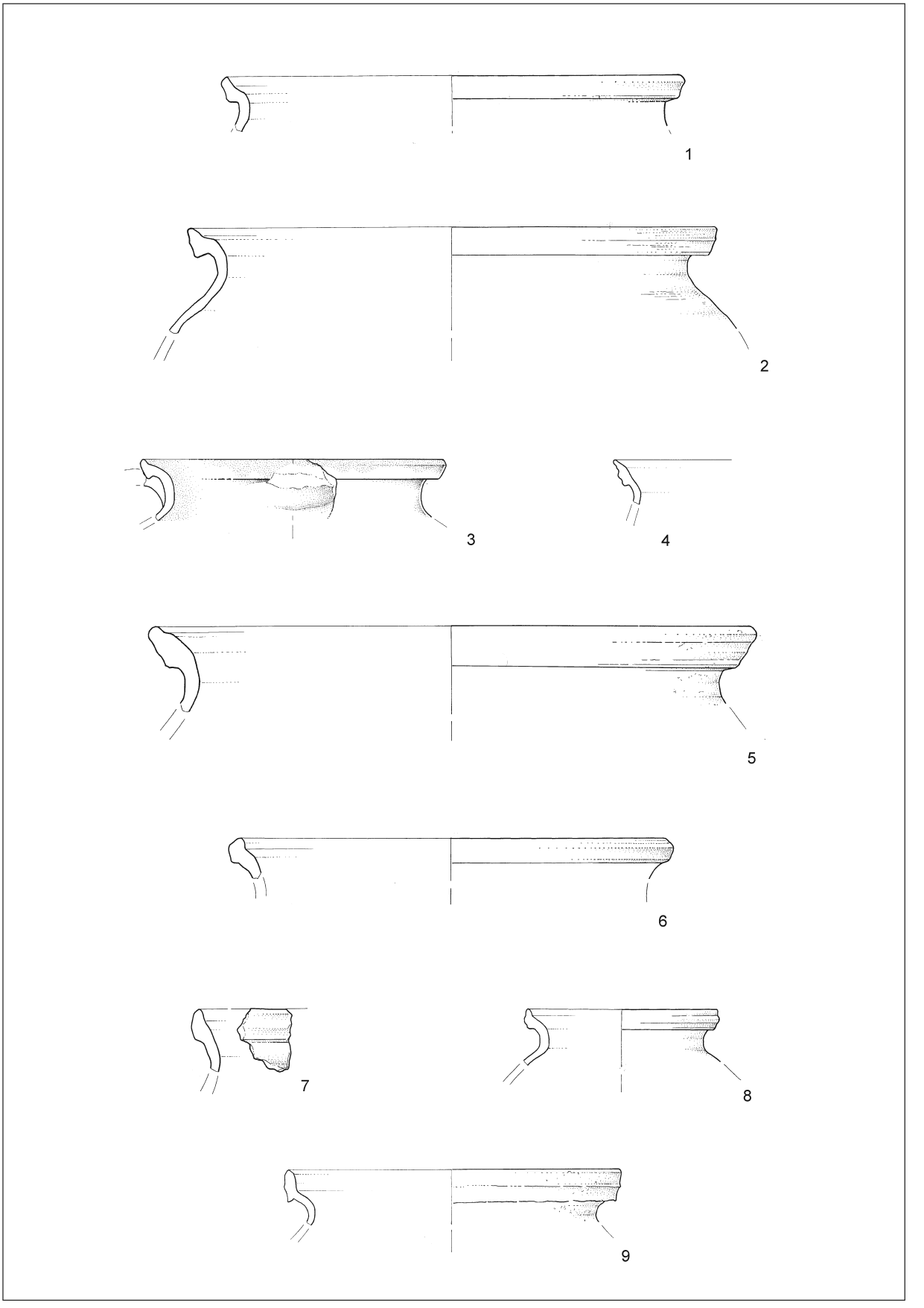
T. 16: Mali grad. Vse lončenina. M. = 1:3.
T. 16: Mali grad. All pottery. Scale 1:3



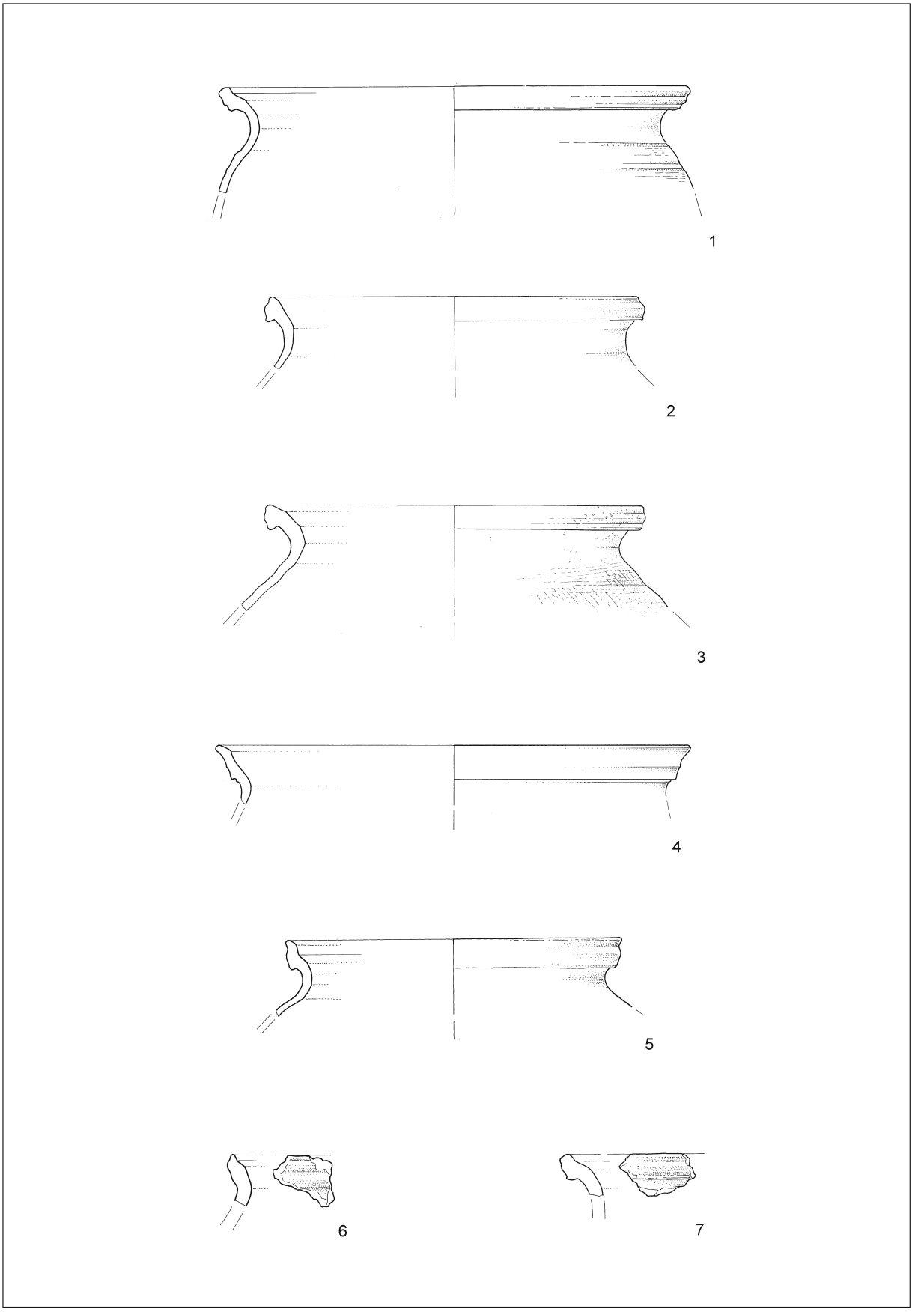
T. 17: Mali grad. Vse lončenina. M. = 1:3.
T. 17: Mali grad. All pottery. Scale 1:3



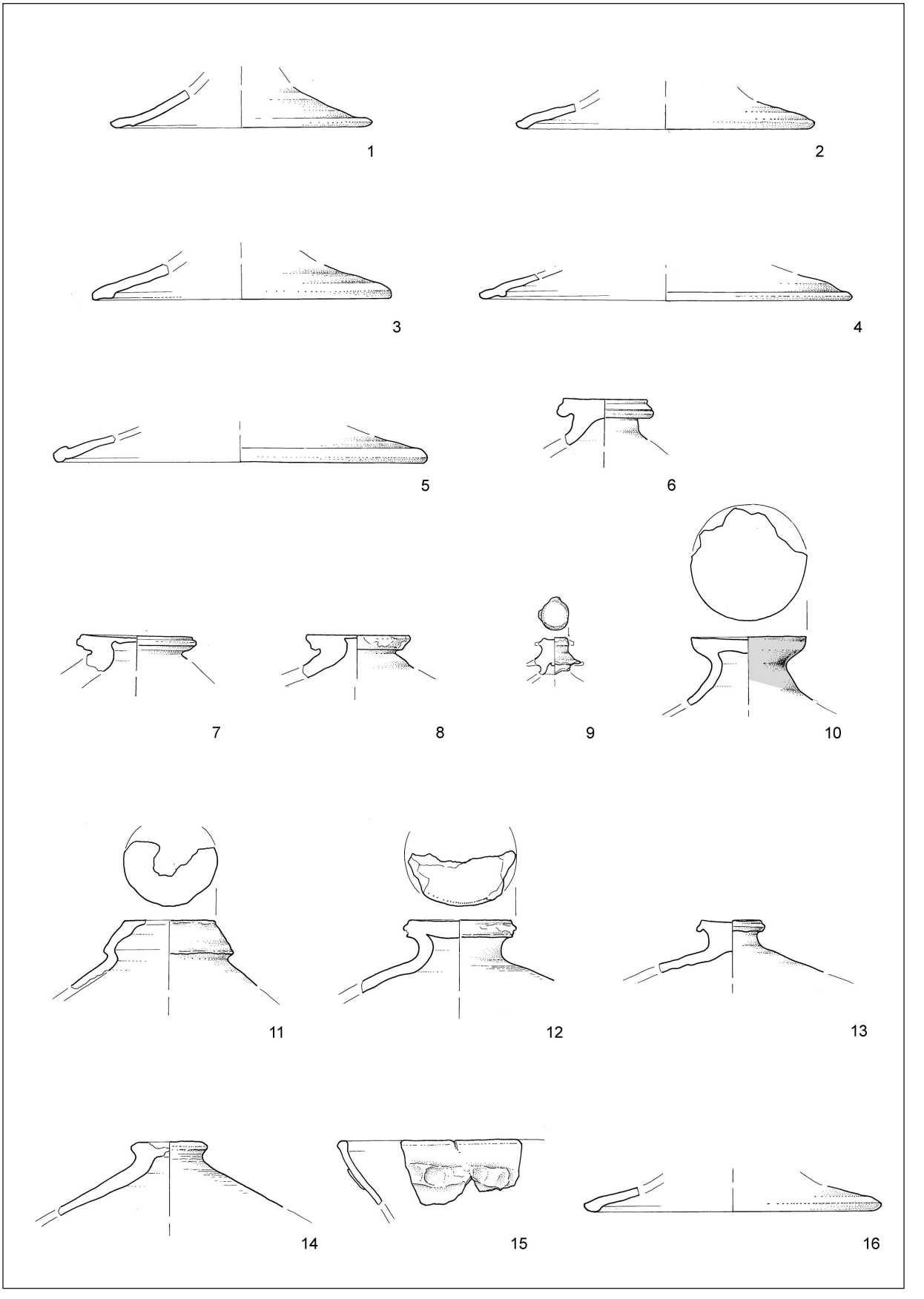
T. 18: Mali grad. Vse lončenina. M. = 1:3.
T. 18: Mali grad. All pottery. Scale 1:3



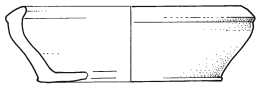
T. 19: Mali grad. Vse lončenina. M. = 1:3.
T. 19: Mali grad. All pottery. Scale 1:3



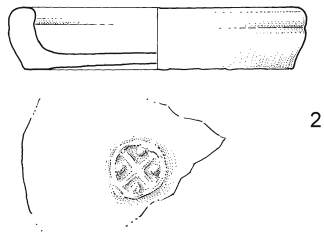
T. 20: Mali grad. Vse lončenina. M. = 1:3.
T. 20: Mali grad. All pottery. Scale 1:3



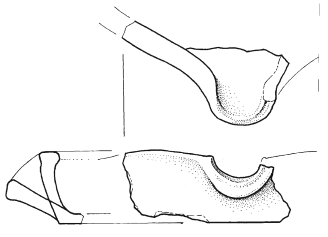
T. 21: Mali grad. Vse lončenina. M. = 1:3.
T. 21: Mali grad. All pottery. Scale 1:3



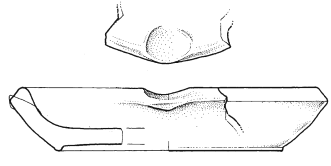
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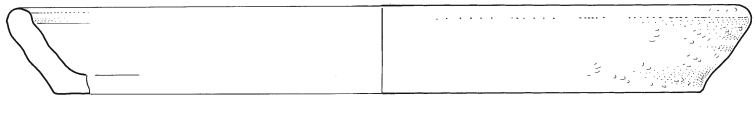
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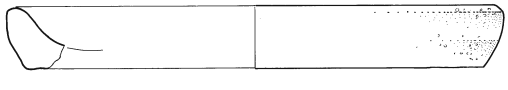
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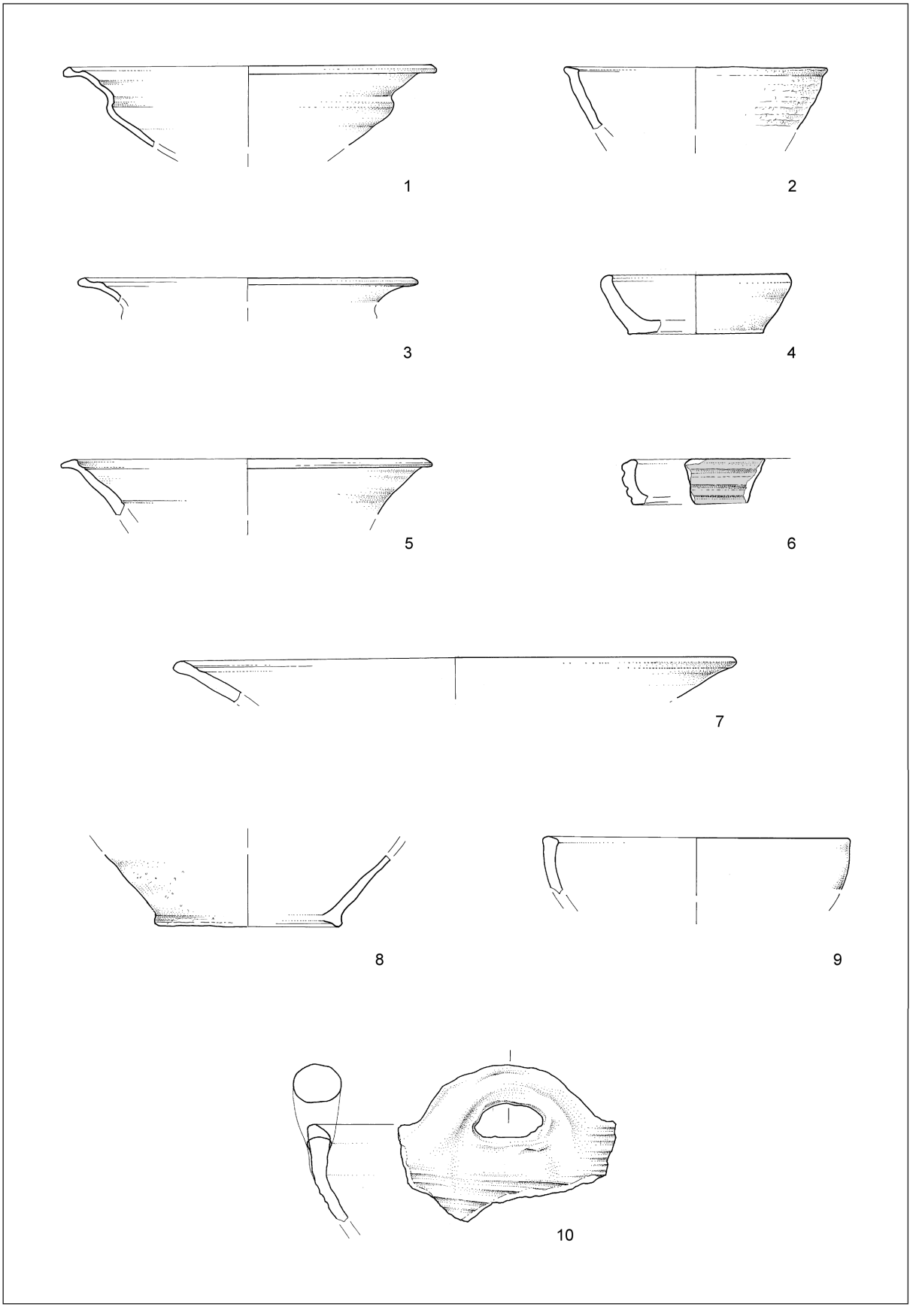


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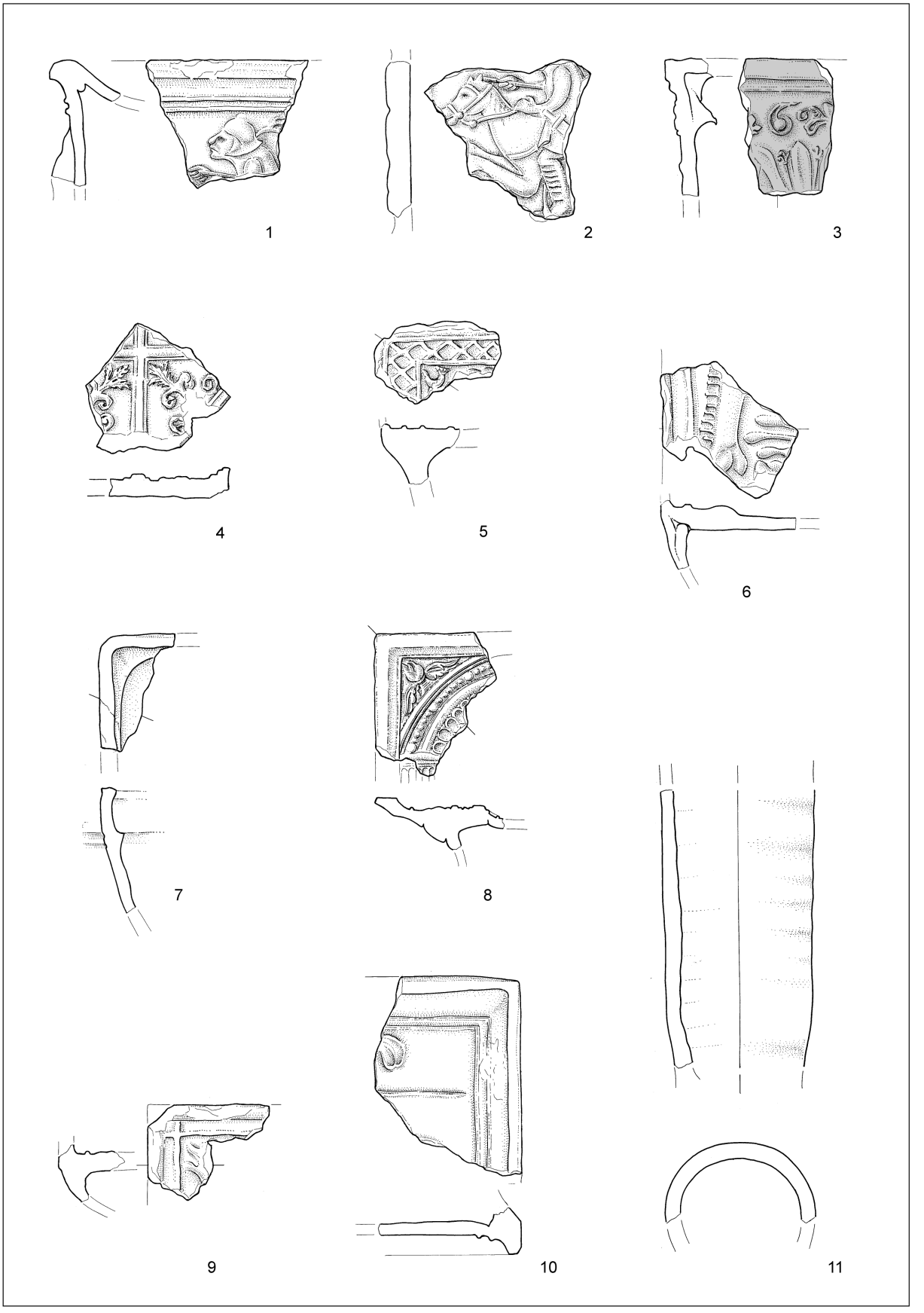


7

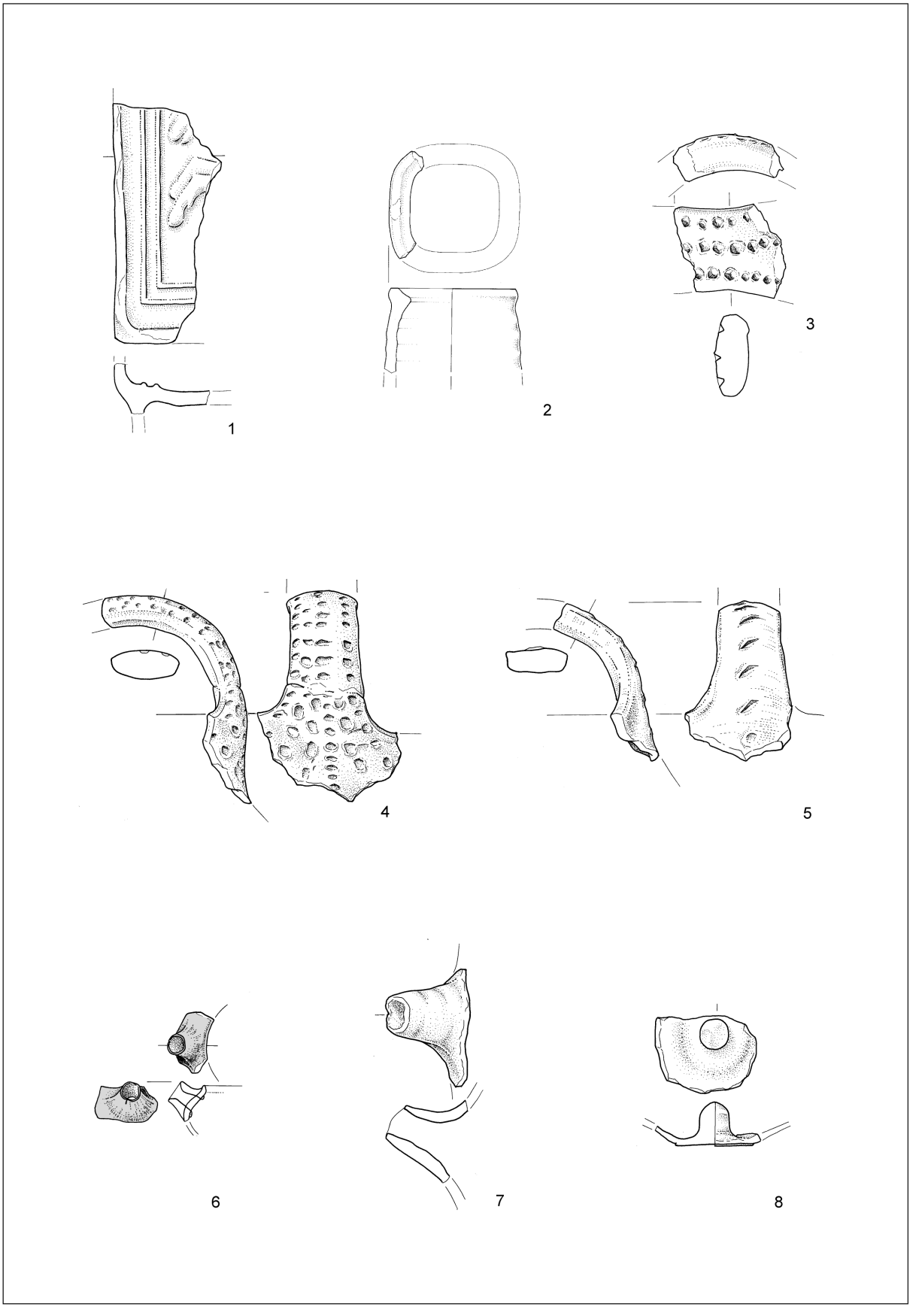
T. 22: Mali grad. Vse lončenina. M. = 1:3.
T. 22: Mali grad. All pottery. Scale 1:3



T. 23: Mali grad. Vse lončenina. M. = 1:3.
T. 23: Mali grad. All pottery. Scale 1:3



T. 24: Mali grad. Vse lončenina. M. = 1:3.
T. 24: Mali grad. All pottery. Scale 1:3



T. 25: Mali grad. Vse lončenina. M. = 1:3.
T. 25: Mali grad. All pottery. Scale 1:3

13. PRILOGE / APPENDICES

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Priloga 1 / Appendix 1

OBLIKOVNI TIPI USTIJ LONCEV / POT'S RIM TYPES

Tip / *Type*	Družina ustij / *Type family*	Opis ustja / *Rim description*	Orientirano / *Orientation*	Stik z vratom / *Joint with neck*	Značilni elementi so / *Typical elements*
1f	Enostavno zaobljeno / *Simple rounded*	z užlebitvijo na notranji strani / *with a groove on the inside*	navzven / to the *outside*	tekoč / *fluent*	užlebitev / *groove*
1g		s horizontalno orientiranim ustjem / *horizontally oriented*	navzven / *to the outside*	tekoč / *fluent*	horizontalna orientacija ustja / *horizontally oriented rim*
1h		rahlo odebeljeno ustje s kaneluro na ustju in rahlo užlebljenim notranjim delom ustja / *slightly thickened with a groove on the rim interior and exterior*	navzven / *to the outside*	tekoč / *fluent*	kanelura in užlebitev / *grooves*
2c	Enostavno oglato / *Simple cornered*	s poševno orientiranim ustjem / *oblique angled*	navzven / *to the outside*	tekoč / *fluent*	poševna orientacija ustja / *oblique angled*
2f		rahlo užlebljeno na notranjem delu ustja / *with a slight groove on the rim interior*	navzven / *to the outside*	tekoč / *fluent*	poševna orientacija ustja in užlebljenost / *oblique angled rim, groove*
2g		rahlo odebeljeno ustje z navpičnim robom / *slightly thickened with a vertical edge*	navzven / *to the outside*	tekoč / *fluent*	vertikalna orientacija roba ustja / *vertical edge of the rim*
2h		spodaj poševno prirezano in rahlo razširjeno ustje / *slightly thickened, lower edge cut at an oblique angle*	navzven / *to the outside*	tekoč / *fluent*	poševno prirezan rob / *oblique angled edge of the rim*
3d	Stanjšano / *thin*	zaobljeno / *rounded*	navzven / *to the outside*	tekoč / *fluent*	stanjšan rob / *thin rim*
4c	"Rogljasto" / *"Pronged"*	rahlo razširjeno in užlebljeno zgoraj, spodaj ter na ustju / *slightly thickened, grooves on the rim interior and exterior as well as on its edge*	navzven / *to the outside*	postopen / *gradual*	mesto užlebljenosti / *groove position*
4d		močno izvihano, rahlo razširjeno in užlebljeno zgoraj ter na ustju / *strongly thickened, groove on the rim exterior as well as on its edge*	navzven / *to the outside*	postopen / *gradual*	mesto užlebljenosti in poševna orientacija ustja / *groove position, orientation*
5b	Spodrezano / *Undercut*	enostavno z vertikalnim robom ustja / *simple, vertical edge*	navzven / *to the outside*	spodrezan ali četrtkrožen element / *undercut or quarter-circle*	spodrezanost in skoraj vertikalno ustje / *undercut, almost vertical edge of the rim*
5c		enostavno, izvihano ustje z enakomerno zaobljenim robom / *simple, oriented towards the outside, rounded edge*	navzven / *to the outside*	spodrezan / *undercut*	zaobljeno ustje / *rounded edge of the rim*
5d		enostavno, močno izvihano ustje z enakomerno zaobljenim robom / *simple, strongly oriented towards the outside, rounded edge*	navzven / *to the outside*	spodrezan / *undercut*	enakomerno zaobljeno ustje / *rounded edge of the rim*

Tip / *Type*	Razlike glede na / *Variations according to*	Št. odlomkov/ *No. of shards*	Komentar / *Comment*	Razpon datacij (težišče datacij) / *Datation span (central datation)*[1]	Tabla / *Table*
1f	izvihanost / *orientation*	120	močna variacija izvihanosti / *strong variations in orientation towards the outside*	800-1250 (800-1100)	T. 8: 1- 3
1g	ni različic / *no variations*	4	nismo prepoznali izrazitih različic / *no recognised subtypes*	800-1300 (800-1225)	T. 8: 5
1h	izvihanost / *orientation*	28	homogen tip z različicami / *homogeneous type with variations*	800-1250 (800-1200)	T. 8: 4,9
2c	izvihanost / *orientation*	62	homogen tip z različicami / *homogeneous type with variations*	800-1250 (800-1100)	T. 8: 6-7
2f	izvihanost / *orientation*	21	homogen tip z različicami / *homogeneous type with variations*	800-1200 (800-1100)	T. 8: 8,10-11
2g	izvihanost in stopnjo razširitve / *orientation and thickness*	32	homogen tip z različicami / *homogeneous type with variations*	800-1400 (800-1233)	T. 8: 12-14
2h	izvihanost in stopnja razširitve / *orientation and thickness*	80	homogen tip z različicami; tip 2H tekoče prehaja v tip 5G / *homogeneous type with variations*; fluent transition from type 2H to 5G	800-1300 (900-1225)	T. 8: 15; 9: 1-3
3d	lokacija preoblikovanosti, tanjšanja, zgoraj in/ ali spodaj / *the thinning on the rim interior and/or exterior*	7	nismo prepoznali izrazitih različic / *no recognised subtypes*	800-1200	T. 9: 4
4c	ni različic / *no variations*		nismo prepoznali izrazitih različic / *no recognised subtypes*	800-1200	T. 9: 5-9
4d	ni različic / *no variations*	8	nismo prepoznali izrazitih različic / *no recognised subtypes*	800-1200	
5b	ni različic / *no variations*	13	nismo prepoznali izrazitih različic / *no recognised subtypes*	900-1325 (1150-1300)	T. 9: 10
5c	ni različic / *no variations*	37	homogen tip / *homogeneous type*	800-1300 (1050-1225)	T. 10: 1
5d	ni različic / *no variations*	2	nismo prepoznali izrazitih različic / *no recognised subtypes*	900-1200	T. 10: 2

Tip / *Type*	Družina ustij / *Type family*	Opis ustja / *Rim description*	Orientirano / *Orientation*	Stik z vratom / *Joint with neck*	Značilni elementi so / *Typical elements*
5e		enostavno izvihano in rahlo spodrezano ustje z vertikalno ali rahlo poševno prirezanim robom / *simple, oriented towards the outside, slightly undercut with a vertical or almost vertical edge*	navzven / *to the outside*	spodrezan / *undercut*	prirezano ustje / *slightly undercut rim*
5f		enostavno izvihano in močno spodrezano ustje z vertikalno ali rahlo poševno prirezanim robom / *simple, oriented towards the outside, strongly undercut with a vertical or almost vertical edge*	navzven / *to the outside*	spodrezan / *undercut*	močno prirezano ustje / *strongly undercut rim*
5g		enostavno s poševno prirezanim robom; na zunanji ali notranji strani lahko rahlo užlebljeno / *simple with an oblique angled edge; possible grooves on the interior and exterior of the rim*	navzven / *to the outside*	spodrezan / *undercut*	poševno prirezan rob ustja / *oblique angled edge of the rim*
5h		enostavno odebeljeno, izvihano in spodrezano z vertikalno in horizontalno (spodaj) prirezanim robom / *simple, oriented towards the outside, thickened and undercut with vertically and horizontally cut exterior or lower edge*	navzven / *to the outside*	stopničast / *graded*	stopničast stik z vratom / *graded joint with neck*
6a	Močno izvihano / *Strongly oriented towards the outside*	z odebeljenim zaobljenim robom je užlebljeno na notranji strani / *thickened, rounded, with grooves on the interior*	navzven / *to the outside*	postopen / *gradual*	užlebljenost in orientacija roba ustja / *grooves, orientation*
6c		močno odebeljeno in užlebljeno zgoraj, spodaj ter na ustju / *strongly thickened with grooves on the interior and exterior of the rim as well as on its edge*	navzven / *to the outside*	četrtkrožen element / *quarter-circle*	užlebitvi, stik z vratom / *grooves, joint with neck*
6d		z odebeljenim zgoraj užlebljenim ustjem in vertikalnim robom ustja / *thickened, with groove and vertical edge*	navzven / *to the outside*	tekoč / *fluent*	užlebitvi, stik z vratom / *grooves, joint with neck*
6e		pod ostrim kotom navzgor zalomljeno ustje z užlebitvama roba in notranjega dela ustja / *upwardly graded rim, grooved edge and interior*	navzven / *to the outside*	odsekan / *cut-off*	užlebitvi, zaobljen vrh ustja / *grooves, rounded tip*
6f		pod ostrim kotom navzgor zalomljeno ustje z zaobljenim robom / *upwardly graded rim with rounded edge*	navzven / *to the outside*	odsekan ali četrtkrožen element / *cut-off or* quarter-circle	zalomljenost / *graded*
6g		odebeljeno zaobljeno ustje s poševnim do vertikalnim robom in užlebitvijo na notranji strani / *thickened, rounded with vertical or almost vertical edge and grooves on the interior*	navzven / *to the outside*	močno spodrezan / *severely undercut*	odebeljeno ustje, užlebitev in stik z vratom / t*hickness, groove, joint with neck*

Tip / *Type*	Razlike glede na / *Variations according to*	Št. odlomkov/ *No. of shards*	Komentar / *Comment*	Razpon datacij (težišče datacij) / *Datation span (central datation)*[1]	Tabla / *Table*
5e	obliko vratu / *neck shape*	34	homogen tip z različicami / *homogeneous type with variations*	875-1300 (1000-1225)	T. 10: 8-9
5f	ni različic / *no variations*	1	nismo prepoznali izrazitih različic / *no recognised subtypes*	900-1250	T. 10: 6
5g	obliko vratu, morebitno užlebljenost in orientacijo roba ustja / *neck shape, grooves and orientation*	171	homogen tip z različicami / *homogeneous type with variations*	1000-1400 (1100-1300)	T. 10: 10; 11: 1-9; 12: 1,3-4
5h	obliko vratu in orientacijo ustja / *neck shape and orientation*	140	homogen tip z različicami / *homogeneous type with variations*	1075-1325 (1100-1300)	T. 12: 5-8; 13: 1-8; 14: 1
6a	ni različic / *no variations*	13	nismo prepoznali izrazitih različic / *no recognised subtypes*	1000-1200	
6c	ni različic / *no variations*	1	nismo prepoznali izrazitih različic / *no recognised subtypes*	1000-1200	
6d	ni različic / *no variations*	7	nismo prepoznali izrazitih različic / *no recognised subtypes*	1000-1200	T. 14: 2
6e	izvihanost, različne izvedbe užlebitev in različno zaobljena ustja / *orientation, grooves and rim roundedness*	57	homogen tip z različicami / *homogeneous type with variations*	1000-1500 (1150-1300)	T. 14: 3-6
6f	stik z vratom, preoblikovanost spodnjega dela roba ustja, "brade" / *joint with neck and remodelled rim exterior, i.e. "chin"*	87	homogen tip z različicami / *homogeneous type with variations*	875-1525 (1100-1300)	T. 14: 7-8
6g	naklon ustja in stik z vratom ter preoblikovanost spodnjega dela roba ustja, "brade" / *orientation, joint with neck and remodelled rim exterior, i.e. "chin"*	129	homogen tip z različicami / *homogeneous type with variations*	875-1300 (1100-1233)	T. 14: 9; 15: 1-8; 16: 1-3

Tip / *Type*	Družina ustij / *Type family*	Opis ustja / *Rim description*	Orientirano / *Orientation*	Stik z vratom / *Joint with neck*	Značilni elementi so / *Typical elements*
7a	Močno odebeljeno / *Very thick*	v prečnem profilu kroglasto ustje / *circular in section*	navzven / *to the outside*	četrtkrožen element / *quarter-circle*	kroglast prečni profil / *circular section*
7c		v prečnem profilu kvadratasto ustje, lahko z užlebitvijo notranjega dela ustja / *square in section, possibly grooved exterior*	navzven / *to the outside*	postopen ali stopničast / *gradual or graded*	kvadratast prečni profil / *square section*
7e		v prečnem profilu eliptično ustje / *elliptical in section*	navzven / *to the outside*	postopen / *gradual*	eliptičen prečni profil / *elliptical section*
8c	Zapognjeno / *Folded*	navzven zapognjeno z zaobljenim robom / *folded towards the exterior, rounded edge*	navzven / *to the outside*	močno spodrezan / *severely undercut*	stik z vratom / *joint with neck*
9a	"Karnisno" / *"Curtain"*	z užlebitvijo roba ustja / *grooved edge*	navzven / *to the outside*	četrtkrožen element / *quarter-circle*	užlebitev / *groove*
9b		z užlebitvijo roba ustja in notranje strani ustja/ *grooved edge and interior*	navzven / *to the outside*	četrtkrožen element / *quarter-circle*	užlebitev / *groove*
9c		čokato s kratkim vratom in užlebljenim notranjim delom ustja / *stubby with a short neck and grooved interior*	navzven / *to the outside*	močno spodrezan / *severely undercut*	močno spodrezan stik z vratom in užlebitev / *severely undercut joint with neck, groove*
9d		pol-široko z užlebitvijo roba ustja in notranje strani ustja / semi-*wide with grooved interior and edge*	navzven / *to the outside*	spodrezan / *undercut*	užlebitvi in spodrezan stik z vratom / *undercut joint with neck, grooves*
10a	Široko "karnisno" / *Wide "curtain"*	z užlebitvijo roba ustja in notranje strani ustja ter z zaobljenim vrhom / *rounded top with grooved interior and edge*	navzven / *to the outside*	postopen ali četrtkrožen element / *gradual or quarter-circle*	užlebitev / *groove*
10b		z užlebitvijo roba ustja in notranje strani ustja ter z oglatim vrhom / *angular top with grooved interior and edge*	navzven / *to the outside*	postopen ali četrtkrožen element / *gradual or quarter-circle*	užlebitev / *groove*
10c		z užlebitvijo roba ustja / *grooved edge*	navzven / *t o the outside*	postopen ali četrtkrožen element / *gradual or quarter-circle*	užlebitev / *groove*
10d		je dvakrat zalomljeno, na notranji strani užlebljeno / *graded and grooved interior*	navzven / *to the outside*	postopen / *gradual*	dvakrat zalomljeno ustje / *twice graded section*
10e		"ovratnikasto" ustje z rrahlo poševen robom, na notranji strani užlebljeno / "collar-rim" with *almost vertical edge, grooved interior*	navzven / *to the outside*	spodrezan / *undercut*	orientacija / *orientation*
10f		"ovratnikasto" ustje z rahlo poševnim robom ustja / "collar-rim" with *almost vertical edge*	navzven / *to the outside*	spodrezan / *undercut*	navpičen rob ustja / *vertical edge of the rim*

Tip / *Type*	Razlike glede na / *Variations according to*	Št. odlomkov/ *No. of shards*	Komentar / *Comment*	Razpon datacij (težišče datacij) / *Datation span (central datation)*[1]	Tabla / *Table*
7a	ni različic / *no variations*	1	nismo prepoznali izrazitih različic / *no recognised subtypes*	800-1325	T. 16: 4
7c	užlebljenost in stik z vratom / *grooves and joint with neck*	11	homogen tip z različicami / *homogeneous type with variations*	1000-1250	
7e	ni različic / *no variations*	45	homogen tip / *homogeneous type*	1000-1400 (1200-1325)	T. 16: 5
8c	izvihanost in profil prečnega prereza / *orientation and section*	122	heterogen tip opisuje tehniko izdelave ustja in ne obliko ustja / *heterogeneous type is a consequence of the definition-by-manufacturing -technique rather than form*	1100-1300 (1100-1250)	T. 16: 6-9; 17: 1-5
9a	ni različic / *no variations*	3	nismo prepoznali izrazitih različic / *no recognised subtypes*	1000-1250 (1100-1250)	
9b	ni različic / *no variations*	22	homogen tip / *homogeneous type*	1000-1233	T. 17: 6-9
9c	ni različic / *no variations*	8	nismo prepoznali izrazitih različic / *no recognised subtypes*	900-1225	
9d	ni različic / *no variations*	6	nismo prepoznali izrazitih različic / *no recognised subtypes*	1000-1225	
10a	obliko užlebitve, orientacijo in višina roba ustja / *groove, orientation and height of edge*	46	homogen spodnji del roba ustja, zgornji del roba ustja pa ima različice / *homogeneous lower part and upper part with variations*	1100-1600 (1275-1450)	T. 17: 10
10b	višina roba ustja in orientacija / *orientation and height of edge*	10	nismo prepoznali izrazitih različic / *no recognised subtypes*	1250-1400 (1300-1400)	T. 18: 1
10c	višina roba ustja / *height of edge*	34	homogen tip / *homogeneous type*	1150-1525 (1200-1425)	T. 18: 2
10d	izvihanost nad drugim pregibom oziroma zalomitvijo / *orientation* above 2nd grade	45	homogen v predelu prvega in heterogen v predelu drugega pregiba / *homogeneous in the 1st grade-area, heterogeneous in the 2nd grade-area*	1150-1425 (1200-1350)	T. 18: 4-5; 19: 1
10e	višina roba ustja / *height of edge*	44	homogen tip z različicami / *homogeneous type with variations*	1150-1600 (1275-1475)	T. 19: 3
10f	višina roba ustja / *height of edge*	30	homogen tip z različicami / *homogeneous type with variations*	1150-1200	

Tip / *Type*	Družina ustij / *Type family*	Opis ustja / *Rim description*	Orientirano / *Orientation*	Stik z vratom / *Joint with neck*	Značilni elementi so / *Typical elements*
11a	Večkrat profilirano / *With multiple grooves*	dvakrat konkavno profiliran rob, na notranji strani rahla užleblitev / *twice grooved edge, slightly grooved interior*	navzven / *to the outside*	četrtkrožen element / *quarter-circle*	dvakrat konkavno profiliran rob / *twice grooved edge of the rim*
11b		enkrat konveksno profiliran rob, na notranji strani močna užlebitev / single ribbed *edge, strongly grooved interior*	navzven / *to the outside*	postopen ali četrtkrožen element / *gradual or quarter-circle*	enkrat konveksno profiliran rob / *single ribbed edge of the rim*
11c		enkrat konveksno profiliran rob / single ribbed *edge*	navzven / *to the outside*	četrtkrožen element / *quarter-circle*	enkrat konveksno profiliran rob / single ribbed *edge of the rim*
11d		dvakrat konkavno profiliran rob, na notranji strani močna užlebitev / *twice grooved edge, strongly grooved interior*	navzven / *to the outside*	močno spodrezan / *severely undercut*	močna užleblјenost notranjega dela ustja / *strongly grooved rim interior*

Tip / *Type*	Razlike glede na / *Variations according to*	Št. odlomkov/ *No. of shards*	Komentar / *Comment*	Razpon datacij (težišče datacij) / *Datation span (central datation)*[1]	Tabla / *Table*
11a	višina roba ustja in orientacija / *height of edge and orientation*	18	heterogen tip je posledica uporabljene metode ovojnice, ki za ta tip ni primerna (razlike v razmaku in širini prečnih profilacij "popačijo" ovojnico) / *heterogeneous type; the envelope method is not suitable for this type due to the negative correlations (the different placements of grooves "distort" the picture)*	1300-1600 (1350-1525)	T. 19: 4
11b	višini in orientaciji / *height and orientation*	28	heterogen tip je posledica uporabljene metode ovojnice, ki za ta tip ni primerna (razlike v razmaku in širini prečnih profilacij "popačijo" ovojnico) / *heterogeneous type; the envelope method is not suitable for this type due to the negative correlations (the different placements of grooves "distort" the picture)*	1300-1525 (1300-1500)	T. 19: 2,5-9; 20: 1
11c	ni različic / *no variations*		nismo prepoznali izrazitih različic / *no recognised subtypes*	1200-1600	T. 20: 2-3
11d	užlebljenost notranjega dela ustja / *level of grooves on the rim interior*	1	nismo prepoznali izrazitih različic / *no recognised subtypes*	1375-1425	T. 20: 4-5

[1] Ob najmanj štirih datacijah približno 25 % najmlajših in 25 % najstarejših datacij ni upoštevanih (prim. Priloga 2).
Roughly 25 % of the youngest and 25 % of the oldest datations were deducted; 4 datations minimum (cf. Appendix 2).

Priloga 2

PRIMERJAVE ZA OBLIKOVNE TIPE USTIJ LONCEV

Datacije navedene v oklepaju so številčen približek dejanskega opisa, na primer (1200-1250) namesto prva polovica 13. stoletja ipd. Avtor prevzema odgovornost za morebitna popačenja izvirnih datacij.

Appendix 2

ANALOGIES FOR POT'S RIM TYPES

Dates in brackets are numerical approximation of actual descriptions. For example (1200-1250) stands for 1st half of 13th century etc. Possible misrepresentations are full responsibility of the author.

1F

Losert 1993, tip / type 1F (900-1200); Unger 1996, Obr. 2: 2,3,4. (950-1100); Belak et al. 2008, t. 12: 15; 13: 19 (800-973); Boháčova 2003, Obr. 30a: 35,40 (800-1100); Wintergerst 2003, Abb. 4, 23 (visokosrednjeveško / *high medieval*); Losert 1993, Taf. 25: 5 (1185-1237).

1G

Dannheimer 1973, t. 18: 20 (1000-1100); Loskotova, Procházka 1996, Obr. 3: 7 (1100-1300); Belak et al. 2008, t. 13: 22 (800-973); Hanuliak 1993, t. 50: 2; 56: 6; 57: 9 (800-1200); Lobbedey 1995, Abb.2: 120 (1100-1200); Kaltenberger 1997, t. 12: 78 (1175-1233); Jensen 2003, Tafel 50: 351,352 (1200-1233).

1H

Müller 1994, t. 4: 11 (800-1000); Brachmann 1994, abb. 3 (okoli / *around* 1000); Dannheimer 1973, t. 1: 5 (1000-1050); Dannheimer 1973, t. 28: 2 (1200-1250); Belak et al. 2008, t. 13: 2 (800-973); Rejholcova 1995, grob / *grave* 487: 5, 690 (800-1200); Hanuliak 1993, t. 93: 1; 97: 1,2; 102: 6; 113: 3 (800-1200); Losert 1993, Taf. 24: 3 (pred / *before* 1007); Kaltenberger 1997, t. 3: 19; 6: 37 (1150-1200).

2C

Weid 2000, 31-32, tip / *type* 4b (800-1000); Gutjahr, Tiefengraber 2003, tip / *type* 1 (800-1125); Losert 1993, tip / *type* 2C (800-1200); Wintergerst 1999, t. 19: 1,2,3,4,7; 49: 10,12 (875-1125); Müller 1994, t. 6: 9 (950-1000); Kaufmann 1999, 53-54, tip / *type* 1e (900-1100); Dannheimer 1973, t. 1: 1,3,4,14, (975-1050); Lobbedey 1995, Abb.1: 15-17 (700-1000); Belak et al. 2008, t. 2: 5,7,9 (800-973); Losert 1993, Taf. 23: 7 (pred / *before* 1007); Boháčova 2003, obr. 30a: 38 (800-1100); Kaltenberger 1997, t. 1: 1,2 (1000-1100); Radoměrský, Richter 1974, 14 (okoli / *around* 1118); Radoměrský, Richter 1974, 22 (pred / *before* 1142); Jensen 2003, Tafel 64: 473 (1200-1233).

2F

Losert 1993, tip / *type* 2F (800-1000); Müller 1994, t. 5: 7 (800-1000); Wintergerst 1999, t. 19: 3, 52: 5, 53: 1 (875-1125); Wintergerst 1999, t. 12: 8 (900-1100); Weid 2000, 31-32, tip / *type* 4d (900-1200); Belak et al. 2008, t. 4:12,16; 5: 9 (800-973); Boháčova 2003, obr. 30b: 1 (800-1100); Lehner 2004, Taf. 2: 3 (1000-1200).

2G

Mechthild 1981, Abb. 69, tip / *type* 65 (700-1200); Losert 1993, tip / *type* 2G (800-1000); Kaufmann 1999, 53-54, tip / *type* 1a (900-1100); Müller 1994, t. 6: 6 (900-950); Dannheimer 1973, t. 7: 2,7,13 (1000-1050); Kaltenberger 1997, t. 4: 22 (1050-1150); Stadler 1995, Abb. 56: A51 (1100-1300); Belak et al. 2008, t. 8: 13 (800-973); Rejholcova 1995, t. 156: 3 (800-1200); Hanuliak 1993, t. 48: 3,7; 133: 11 (800-1200); Lobbedey 1995, Abb.2: 105 (1100-1200); Felgenhauer-Schmied 1996, Abb. 9 (1100-1300); Jensen 2003, Tafel 46: 326 (1200-1233); Radoměrský, Richter 1974, 62b (okoli / *around* 1400).

2H

Müller 1994, t. 5: 2 (800-1000); Belak et al. 2008, t. 4:23 (800-973); Hanuliak 1993, t. 318: 10 (800-1200); Kaltenberger 1997, t. 1: 7 (1075-1125); Lobbedey 1995, Abb.2: 106 (1100-1200); Stadler 1995, t. 1: A3 (1100-1300); Jensen 2003, Tafel 47: 327 (1200-1233); Mechthild 1981, Abb. 69, tip / *type* 82 (1200-1300); Müller 1996, Tafel 17 (1220-1230).

3D

Losert 1993, tip / *type* 3D (800-1000); Belak et al. 2008, t. 1: 17 (800-1000); Hanuliak 1993, t. 115: 3; 116: 9 (800-1200).

4C

Losert 1993, tip / *type* 4C (800-1200); Müller 1994, t. 9: 2 (800-1000); Dannheimer 1973, t. 16: 7,8 (975-1025).

4D

Losert 1993, tip / *type* 4D (800-1200).

5B

Wintergerst 1999, t. 90: 6 (900-1200); Losert 1993, tip / *type* 5B (1000-1225); Dannheimer 1973, t. 4: 12 (1150-1300); Gutjahr, Tiefengraber 2003, tip / *type* 12a (1175-1325); Kaltenberger 1997, t. 12: 84 (1175-1233); Radoměrský, Richter 1974, 42 (1200-1300); Mechthild 1981, Abb. 69, tip / *type* 79 (1200-1300).

5C

Weid 2000, 33, tip / *type* 5a (800-1200); Losert 1993, tip / *type* 5C (1000-1225); Dannheimer 1973, t. 12: 8; 16: 17,23,27 (1050-1100); Kaltenberger 2001, t. 7: 114 (1075-1225); Kaltenberger, Cech 2003, t. 2: A44 (1175-1300); Jensen 2003, Tafel 44: 300 (1200-1233).

5D

Losert 1993, tip / *type* 5D (900-1200).

5E

Wintergerst 1999, t. 14: 2 (900-1100); Wintergerst 1999, t. 64: 7 (875-1125); Weid 2000, 33, tip / *type* 5d (900-1200); Losert 1993, tip / *type* 5E (1000-1225); Gutjahr, Tiefengraber 2003, tip / *type* 2 (1000-1300); Dannheimer 1973, t. 17: 5 (1050-1150); Gutjahr, Tiefengraber 2004, tip / *type* 2 (1100-1200); Kaltenberger, Cech 2003, t. 1: A4 (1100-1225); Kaltenberger 1997, t. 5: 34 (1150-1200); Jensen 2003, Tafel 49: 342, 343 (1200-1233).

5F

Losert 1993, tip / *type* 5F (900-1200); Keller 1999, Tafel 2: 3,4 (1200-1250).

5G

Losert 1993, tip / *type* 5G (1000-1200); Kaufmann 1999, 56-57, tip / *type* 6a (1000-1300); Wintergerst 1999, t. 74: 2; 75: 4 (1100-1225); Felgenhauer - Scmeidt 1996, Abb. 9 (1100-1300); Wintergerst 1999, t. 98: 2,5 (1150-1225); Dannheimer 1973, t. 2: 5,10,11; 3: 4,13 (1150-1300); Kaltenberger 2003, Tafel 1: 2 (1150-1325); Gutjahr, Tiefengraber 2003, tip / *type* 5a, 5b, 5c (1200-1400); Kaltenberger 2001, t. 7: 111 (1075-1225); Kaltenberger 1997, t. 3: 21; 4: 26,27; 6: 37-42 (1100-1200); Lobbedey 1995, Abb.2: 109,111 (1100-1200); Stadler 1995, t. 7: A53 (1100-1300); Kaltenberger, Cech 2003, t. 1: A7,A8 (1150-1200); Losert 1993, Taf. 27: 16 (1185-1237); Jensen 2003, Tafel 45: 313 (1200-1233); Mechthild 1981, Abb. 69, tip / *type* 81 (1200-1300); Mittelstraß 1996, Abb. 101: 27,28 (1270-1300); Predovnik 2003, sl. 42: 40,41,54 (1275-1350); Keller 1999, Tafel 8: 22; 9: 10 (1275-1356); Behrer 2001, 227, Abb. 162 (okoli / *around* 1300).

5H

Loskotová, Prochazká 1996, Obr. 1: 409; 9: 5 (1100-1300); Felgenhauer-Scmeidt 1996, Abb. 2 (1100-1300); Kaltenberger, Cech 2003, t. 1: A5 (1075-1100); Kaltenberger 2001, t. 7: 107(6), 108 (1075-1225); Kaltenberger 1997, t. 4: 28 (1100-1200); Mittelstraß 1996, Abb. 100: 25 (1220-1271); Behrer 2001, 227, Abb. 162 (okoli / *around* 1300).

6A

Losert 1993, tip / *type* 6A (1000-1200); Kaltenberger 1997, tab. 11: 76 (1150-1200).

6C

Dannheimer 1973, tab. 16: 18,22; 32: 8 (1000-1100); Losert 1993, tip / *type* 6C (1000-1200).

6D

Losert 1993, tip / *type* 6D (1000-1200); Dannheimer 1973, tab. 7: 4,5,8,11 (1050-1100).

6E

Losert 1993, tip / *type* 6E (1000-1200); Loskotova, Prochazka 1996, Obr. 1: 401 (1100-1300); Dannheimer 1973, t. 19: 2; 43: 1,2 (1150-1300); Jensen 2003, Tafel 47: 331 (1200-1233); Mittelstraß 1996, Abb. 101: 36 (1300-1324); Gross 1991, Abb. 32: 10 (1300-1500).

6F

Wintergerst 1999, t. 38: 8 (875-1125); Losert 1993, tip / *type* 6F (1000-1200); Dannheimer 1973, t. 20: 1 (1000-1200); Wintergerst 1999, t. 81: 1 (1100-1225); Kaufmann 1999, 56-57, tip / *type* 6h (1200-1300); Kaltenberger 2003, Tafel 1: 8 (1275-1300); Münz 1997: 75-97, tip / *type* 6.2 (1319-1525); Mechthild 1981, Abb. 69, tip / *type* 63,64 (1000-1200); Gross 1991, Abb. 32: 8 (1250-1300); Müller 1996, Tafel 17 (1250-1300); Radoměrský, Richter 1974, 90 (po / *after* 1430).

6G

Wintergerst 1999, t. 34: 3,6,7 (875-1125); Losert 1993, tip / *type* 6G (1000-1200); Dannheimer 1973, t. 19: 7,12,13; 20: 10 (1100-1150); Wintergerst 1999, t. 81: 3 (1100-1225); Kaltenberger 1997, t. 8: 50 (1150-1200); Losert 1993, Taf. 25: 11 (1185-1237); Jensen 2003, Tafel 52: 373 (1200-1233); Mechthild 1981, Abb. 69, tip / *type* 87,88 (1200-1300).

7A

Weid 2000, 34, tip / *type* 7 (8.-10. st. / c.); Losert 1993, tip / *type* 7A (800-1200); Behrer 2001, 227, Abb. 162 (okoli / *around* 1300).

7C

Losert 1993, tip / *type* 7C (1000-1250); Dannheimer 1973, tab. 23: 9 (1150-1200).

7E

Losert 1993, tip / *type* 7E (1000-1200); Wintergerst 1999, tab. 78: 5 (1100-1225); Dannheimer 1973, tab. 5: 19; 13: 23,24 (1225-1275); Jensen 2003, Tafel 51: 366 (1200-1233); Behrer 2001, 227, Abb. 162 (okoli / *around* 1300); Mittelstraß 1996, Abb. 101: 39 (1300-1324); Lobbedey 1995, Abb. 7: 236 (1300-1400); Mittelstraß 1996, Abb. 106: 78 (1375-1400).

8C

Felgenhauer - Schmiedt 1996, Abb. 11 (1100-1300); Wintergerst 1999, t. 76: 9; 77: 1 (1100-1225); Gutjahr, Tiefengraber 2003, tip / *type* 8c (1150-1300); Kaltenberger 2003, Tafel 1: 1 (1150-1300); Dannheimer 1973, t. 6: 8; 27: 7,8,17 (1200-1250); Lobbedey 1995, Abb. 2: 112 (1100-1200); Kaltenberger 2001, t. 7: 118 (1100-1250); Kaltenberger 1997, t. 10: 67-69; 11: 70-72 (1150-1233); Kaltenberger, Cech 2003, t. 1: A17 (1175-1225); Jensen 2003, Tafel 57: 420 (1200-1233).

9A

Losert 1993, tip / *type* 9A (1000-1225); Wintergerst 1999, tab. 79: 1,2 (1100-1225); Kaufmann 1999, 57, tip / *type* 7a (1100-1250); Dannheimer 1973, tab. 3: 20 (1200-1250); Kaltenberger 1997, tab. 11: 75 (1200-1250).

9B

Losert 1993, tip / *type* 9B (1000-1325); Wintergerst 1999, t. 79: 3 (1100-1225).

9C

Wintergerst 1999, tab. 71: 5 (1100-1200); Losert 1993, tip / *type* 9C (1000-1225); Wintergerst 1999, tab. 78: 3, 79: 7 (1100-1225).

9D

Losert 1993, tip / *type* 9D (1000-1225).

10A

Fassbinder 2001, 268, Abb. 5, tip / *type* 1A5-B1II (1200-1400); Dannheimer 1973, Beilage 2: Endsee und Nordenberg (1250-1400); Münz 1997: 75-97, tip / *type* 14.1-4 (1319-1525); Gross 1991, Abb. 33: 6-9 (1400-1500); Stadler 1995, t. 6: A37-A42 (1100-1600); Müller 1996, Tafel 17 (1250-1350); Nekuda 1985, Obr. 137a (1275-1468); Radoměrský, Richter 1974, 49 (1300-1317); Lobbedey 1995, Abb. 8: 255,256 (1300-1400); Mechthild 1981, Abb. 69, tip / *type* 100-104 (1300-1400); Keller 1999, Tafel 452: 1,3,4 (1400-1450).

10B

Müller 1996, Tafel 17 (1250-1300); Wolf 2006, 93, Obr. 7, tip / *type* 13 (1300-1350); Mechthild 1981, Abb. 69, tip / *type* 105 (1300-1400); Predovnik 2003, sl. 43: 80,81 (1325-1375); Radoměrský, Richter 1974, 57 (pred / *before* 1400).

10C

Wintergerst 1999, t. 107: 4 (1150-1225); Kaufmann 1999, 58, tip / *type* 7b (1200-1300); Gutjahr, Tiefengraber 2004, tip / *type* 7 (1200-1325); Gutjahr, Tiefengraber 2003, tip / *type* 7 (1200-1400); Fassbinder 2001, 268, Abb. 5, tip / *type* 2B1-B1II (1200-1410); Wintergerst 1999, t. 114: 7,8 (1200-1425); Dannheimer 1973, t. 3: 14-17,22,23 (1250-1300); Münz 1997, 75-97, tip / *type* 13.1-3 (1319-1525); Gross 1991, Abb. 32: 9 (1375-1500); Müller 1996, Tafel 17 (1220-1230); Behrer 2001, 227, Abb. 162 (okoli / *around* 1300); Mittelstraß 1996, Abb. 101: 40 (1300-1324); Wolf 2006, 93, Obr. 7, tip / *type* 9 (1300-1350); Gross 1991, Abb. 32: 9 (1300-1500); Mittelstraß 1996, Abb. 103: 55 (1324-1375); Predovnik 2003, sl. 43: 68,70-73 (1325-1375); Müller 1996, Tafel 17 (1350-1400); Keller 1999, Tafel 44: 1-7 (1350-1422).

10D

Wintergerst 1999, t. 110: 4 (1175-1225); Mechthild 1981, Abb. 69, tip / *type* 78, 94 (1200-1300); Predovnik 2003, sl. 41: 32 (1275-1350); Mittelstraß 1996, Abb. 101: 35 (1300-1324); Predovnik 2003, sl. 45: 134 (1375-1425).

10E

Kaltenberger 1997, Taf. 8: 49,51; 9: 58 (1150-1200); Mittelstraß 1996, Abb. 101: 30 (1270-1300); Müller 1996, Tafel 17 (1300-1350); Keller 1999, Tafel 61: 9 (1425-1475); Munz 2003, Abb. 1: 7 (1450-1600).

10F

Kaltenberger 1997, Taf. 9: 56,57 (1150-1200).

11A

Prochazka 1995, Obr. 1: 1 (1300-1425); Unger 2003, t.122: 5 (1375-1425); Dannheimer 1973, t. 46: 3,10,13 (1400-1500); Frieser 1999, 36-38, tip / *type* 9.1-3 (1400-1500); Wintergerst 1999, t. 119: 8 (1400-1600); Kaltenberger 2003, Tafel 2: 16 (1500-1550); Predovnik 2003, 59, sl. 41: 23-25; 46: 156,157; 56: 321,324 (1300-1600); Radoměrský, Richter 1974, 46 (po / *after* 1305); Müller 1996, Tafel 17 (1350-1430); Radoměrský, Richter 1974, 142 (pred / *before* 1471).

11B

Dannheimer 1973, t. 3: 24 (1300-1500); Gutjahr, Tiefengraber 2003, tip / *type* 17c (1300-1500); Prochazka 1994, Obr. 1: 6 (1350-1525); Predovnik 2003, sl. 51: 233 (1400-1500).

11C

Gutjahr, Tiefengraber 2003, tip / *type* 17b (1200-1400); Stadler 1995, Abb. 57: A32 (1500-1600); Predovnik 2003, sl. 44: 106,107 (1375-1425).

11D

Predovnik 2003, sl. 46: 140,142,150; 56: 320 (1375-1500).

Priloga 3 / Appendix 3

SEZNAM STRATIGRAFSKIH ENOT (SE) / LIST OF STRATIGRAPHICAL UNITS (SU)

SE / ***SU***	**ZE /** ***CU***	**Območje /** ***Area***	**Opis*; interpretacija /** ***Description*; Interpretation***	**Faza /** ***Phase***
1986/01		"2. palacij" / *"2nd hall"*	Ožgana ilovica; ostanki predelne stene grajene v tehniki predalčenja. / *Burnt clay; the remnants of the wall built in the timber framing technique.*	4a
1986/02		"2. palacij" / *"2nd hall"*	Maltna ruševina; izravnava terena za gradnjo. / *Destruction layer with mortar; levelling for the 2nd building phase.*	4a
1986/03	103, 104, 188, 191, 192	"2. palacij" / *"2nd hall"*	Tanka rjava peščena plast na estrihu; dejavnosti na hodni površini. / *Thin brown sandy layer on the mortar pavement; ground level.*	4b
1986/04		"2. palacij" / *"2nd hall"*	Spodnja ruševinska plast; nastalo v požaru. / *The lower destruction layer; destroyed in the fire.*	4b
1986/05		"2. palacij" / *"2nd hall"*	Žganina; plast nastala v požaru. / *Burnt layer; destroyed in the fire.*	4b
1986/07		"2. palacij" / *"2nd hall"*	Zgornja ruševinska plast; moderne dejavnosti in humus. / *Upper destruction layer; modern activities and garden humus.*	5
1986/08		"2. palacij" / *"2nd hall"*	Ruševina; moderna gradbena dela. / *Destruction layer; modern building work.*	5
1986/09		"1. palacij" / *"1st hall"*	Estrih pod ostanki line v prečnem zidu, nivo potolčenih skal; hodna površina. / *Mortar pavement and levelled bedrock, bellow the crenel; ground level.*	4a
1986/10		"1. palacij" / *"1st hall"*	Estrih 2. faze, 10 cm višji od SE 1986/09; hodna površina. / *Mortar pavement 10 cm above SU 1986/09; ground level.*	4b
1986/11-12		"2. palacij" / *"2nd hall"*	Manjši okrogel vkop; polnilo in vkop jame za kol. / *Small round pit, filling and cut; post-hole.*	4b
1986/13-14		"2. palacij" / *"2nd hall"*	Manjši okrogel vkop; polnilo in vkop jame za kol. / *Small round pit, filling and cut; post-hole.*	4b
1986/15-16		"2. palacij" / *"2nd hall"*	Manjši okrogel vkop; polnilo in vkop jame za kol. / *Small round pit, filling and cut; post-hole.*	4b
1986/17-18			Manjši okrogel vkop; polnilo in vkop jame za kol. / *Small round pit, filling and cut; post-hole.*	3
1986/19-20		"2. palacij" / *"2nd hall"*	Manjši okrogel vkop; polnilo in vkop jame za kol. / *Small round pit, filling and cut; post-hole.*	3
1986/21-22		"2. palacij" / *"2nd hall"*	Manjši okrogel vkop; polnilo in vkop jame za kol. / *Small round pit, filling and cut; post-hole.*	3
1989/01		"2. palacij" / *"2nd hall"*	Estrih; hodna površina. / *Mortar pavement; ground level.*	4b
1989/02		"2. palacij" / *"2nd hall"*	Manjši vkop s temnim polnilom; neznane dejavnosti. / *Small cut with dark filling; unknown activities.*	4b
1989/03		"2. palacij" / *"2nd hall"*	Kulturna plast; dejavnosti na hodni površini. / *Cultural layer; activities on the ground level.*	4b
1990/01		Kv. /*Q.* 1-23	Naravna skalna osnova. / *Bedrock.*	1
1990/02		Kv. / Q. *1-23*	Rdečerjava ilovica; plast naravnega nastanka. / *Reddish-brown clay; natural.*	1
1990/03	235, 237, 238	Kv. / *Q.* 3, 6	Ilovica; izravnava površine ali naravna ilovica, podvržena pedogenim procesom. / *Clay; levelled or pedogenised natural clay.*	2

SE / *SU*	ZE / *CU*	Območje / *Area*	Opis*; interpretacija / *Description*; Interpretation*	Faza / *Phase*
1990/04		Kv. / *Q.* 1-23	Rjavkasta ilovica; izravnava površine ali naravna ilovica, podvržena pedogenim procesom. / *Brownish clay; levelled or pedogenised natural clay.*	3
1990/05		Kv. / *Q.* 1	Žganina v krpah; neznane dejavnosti. / *Burnt layer in patches; unknown activities.*	3
1990/06	209	Kv. / *Q.* 4- 6	(Artefakti) na skalni osnovi; neznane dejavnosti. / *(Artefacts) on bedrock; unknown activities.*	4a
1990/07		Kv. / *Q.* 1-6	Več vkopov v rumenkastorjavo ilovico; vkopi in polnila, neznana dejavnost**. / *Several cuts in yellowish clay; cuts and fills, unknown activities**.*	4a
1990/08	131, 134, 145, 156, 161	Kv. / *Q.* 3, 6	Temnorjava plast; izravnalno nasutje. / *Dark-brown layer; levelling.*	4a
1990/09	143	Kv. / *Q.* 3	Ožgana ilovica; kurišče. / *Burnt clay; fire place.*	4a
1990/10		Kv. / *Q.* 1-23	Vkopi grobov; skeletno grobišče**. / *Cuts for burials; inhumation cemetery**.*	3
1990/11		Kv. / *Q.* 1-9	Izravnava; dejavnosti ob gradnji. / *Levelling; building activities.*	4a
1990/12-13	202,205, 210,212	Kv. / *Q.* 5	Jama s kamenjem; objekt neznanega namena. / *A pit filled with stone; undefined structure.*	4b
1990/14	128, 130, 135, 139, 144, 146, 148, 152, 154, 155, 162, 197, 198, 200, 203, 204, 211	Kv. / *Q.* 1-6	Trda, rjava, nekoliko peščena plast na hodni površini pritličja; dejavnosti na hodni površini. / *Compact, brown sandy layer formed on the ground level; activities on the ground level.*	4b
1990/15		Kv. / *Q.* 3, 6	Estrih; hodna površina pritličja. / *Mortar pavement; ground level.*	4b
1990/16	153, 158,200	Kv. / *Q.* 1-9	Rjava, nekoliko peščena plast tik pod žganino s tramovi; dejavnosti na hodni površini pritličja. / *Brown sandy layer directly under the burnt layer with timberwork; activities on the ground level.*	4b
1990/17	24, 125	Kv. / *Q.* 4-6	(Artefakti) pod ruševino in nad žganino s tramovi; dejavnosti v nadstropju/jih v času požara. / *(Artefacts) under the destruction layer and above the burnt layer with timberwork; artefacts deriving from the 1st (and possibly 2nd) floor.*	4b
1990/18		Kv. / *Q.* 4	Grobi tlak'; ostanek ometa ali estriha enega izmed nadstropij. / *Rough mortar pavement'; the mortar pavement or rough coating from the 1st (and possibly 2nd) floor.*	4b
1990/19	196	Kv. / *Q.* 4-6	Koncentracija lončenine in žganine; dejavnosti na hodni površini pritličja. / *The concentration of pot-shards and charcoal; activities on the ground level.*	4b
1990/20	201	Kv. / *Q.* 1-9	Rjava, kompaktna plast; humus nastal po porušenju gradu. / *Compact brown layer; humus formed after the destruction of the castle.*	5
1990/21	207, 208	Kv. / *Q.* 1-9	Zelo temno rjava, prhka plast; moderne dejavnosti in humus. / *Loose very dark grey layer; modern activities and humus.*	5
1990/22		Kv. / *Q.* 1-9	Kamenje; ruševina modernih gradbenih del. / *Building stone; rubble, modern building activities.*	5
1991/01		Kv. / *Q.* 1-9	Naravna skalna osnova. / *Bedrock.*	1
1991/02		Kv. / *Q.* 1-9	Rdečerjava ilovica; plast naravnega nastanka. / *Reddish-brown clay; natural.*	1
1991/03		Kv. / *Q.* 2, 3	Estrih; hodna površina pritličja. / *Mortar pavement; ground level.*	4b

SE / *SU*	ZE / *CU*	Območje / *Area*	Opis*; interpretacija / *Description*; Interpretation*	Faza / *Phase*
1991/04	186	Kv. / *Q.* 2, 3	(Artefakti) na estrihu; dejavnosti na hodni površini v pritličju. / *(Artefacts) on the mortar pavement; activities on the ground level.*	4b
1991/05		Kv. / *Q.* 2, 3	Rjavkastorumena ilovnata plast z drobci oglja, kosti in drobirjem; dejavnosti na hodni površini pritličja. / *Brownish-yellow clay layer with fragments of charcoal, bones and very small pot-shards; activities on the ground level.*	4b
1991/06	184	Kv. / *Q.* 2, 3	Temnorjava sipka plast s kamenjem; dejavnosti na hodni površini pritličja. / *Dark-brown loose layer with rubble; activities on the ground level.*	4b
1991/07	165, 182	Kv. / *Q.* 2, 3	Plast žganine in karboniziranega žita; zoglenel pod in vsebina 1. nadstropja. / *Burnt layer with timberwork and carbonised cereals; burnt 1st floor wooden floor and its content.*	4b
1991/08	183, 185	Kv. / *Q.* 4-6	Ruševinsko nasutje; premešane ruševinske plasti mlajše od požara**. / *Destruction layer; mixed layers formed after the fire**.*	4c
1991/09		Kv. / *Q.* 1-3	Zelo temnorjavkasto črna prhka plast pomešana s kamenjem; moderne dejavnosti ali humus. / *Very dark brown loose layer mixed with building stones; modern activities and humus**.*	5
1991/10		Kv. / *Q.* 1-9	Ruševina modernih gradbenih del. / *Destruction layer; mixed layers formed after the fire**.*	5
1992/01		Kv. / *Q.* 1-23	Naravna skalna osnova. / *Bedrock.*	1
1992/02		Kv. / *Q.* 1-23	Rdečerjava ilovica; plast naravnega nastanka. / *Reddish-brown clay; natural.*	1
1992/03	42,58,59	Kv. / *Q.* 5	(Artefakti) v ilovici; plast koluvialnega nastanka z artefakti v drugotni legi. / *(Artefacts) in clay; colluvial layer with artefacts in secondary position.*	2
1992/04	31, 55, 56	Kv. / *Q.* 3, 6	Suhozid in (artefakti) v luknji; kamnita struktura neznane namembnosti in najdbe na uporabni površini le-te. / *Stone wall without mortar and artefacts; stone structure of unknown origin and use and belonging artefacts.*	3
1992/05	20	Kv. / *Q.* 6	Pod estrihom; plast neznanega nastanka. / *Under the mortar pavement; layer of unknown origin and use.*	3
1992/06	14,29,75	Kv. / *Q.* 5, ?	Črna "grajska" plast; dejavnosti na hodni površini. / *Black layer on the mortar pavement; burnt layer.*	4b
1992/07	40	Kv. / *Q.* 5	Pravilen vkop v ilovico s črnim, prhkim polnilom, ki vsebuje veliko kosti in koščkov oglja; vkop in polnilo odpadne jame na grajskem dvorišču**. / *Round cut in clay with black loose fill with a lot of bone fragments and charcoal; cut and fill of a refuse pit**.*	4b
1992/08	30, 32	Kv. / *Q.* 6, 9	Večji vkop v ilovico, ob robovih močno ožgan; vkopan objekt neznane namembnosti. / *Large rectangular cut in clay with burnt edges; dug-in structure of unknown origin and use.*	4a
1992/09	46	Kv. / *Q.* 4	Kotanja, obložena z estrihom in napolnjena s prodom; struktura za odvajanje meteorne vode z grajskega dvorišča. / *A shallow pit paved with mortar and filled with pebbles; a dug-in structure for conveying the rainwater.*	4b
1992/10		Kv. / *Q.* 1-23	Estrih; hodna površina. / *Mortar pavement; ground level.*	4b
1992/11-12		Kv. / *Q.* 18-23	Polnilo in vkop ovalnega tlorisa; jama neznane namembnosti. / *Oval shaped fill and cut; a pit of unknown origin and use.*	4b
1992/13-14		Kv. / *Q.* 18-23	Polnilo in vkop okroglega tlorisa; jama neznane namembnosti. / *Circle shaped fill and cut; a pit of unknown origin and use.*	4b
1992/15-16		Kv. / *Q.* 18-23	Polnilo in vkop okroglega tlorisa; jama za kol. / *Circle shaped fill and cut; post-hole.*	4b
1992/17-18		Kv. / *Q.* 18-23	Polnilo in vkop okroglega tlorisa; jama neznane namembnosti. / *Circular shaped fill and cut; a pit of unknown origin and use.*	4b

SE / *SU*	ZE / *CU*	Območje / *Area*	Opis*; interpretacija / *Description*; Interpretation*	Faza / *Phase*
1992/19-20		Kv. / *Q.* 18-23	Večja struktura nepravilne oblike, polnilo in mejna površina; popravilo obzidja po podoru. / *Larger irregular fill and cut; the repair of the cave-in.*	4b
1992/21-22		Kv. / *Q.* 18-23	Manjša okrogla jama, polnilo in vkop; jama za kol. / *Small circular shaped fill and cut; post-hole.*	4b
1992/23-24		Kv. / *Q.* 18-23	Manjša okrogla jama, polnilo in vkop; jama za kol. / *Small circular shaped fill and cut; post-hole.*	4b
1992/25-26		Kv. / *Q.* 18-23	Manjša okrogla jama, polnilo in vkop; jama za kol. / *Small circular shaped fill and cut; post-hole.*	4b
1992/27-28		Kv. / Q. 18-23	Manjša okrogla jama, polnilo in vkop; jama za kol. / *Small circular shaped fill and cut; post-hole.*	4b
1992/29		Kv. / *Q.* 18-23	Večji okrogel vkop s polnilom 1992/07; vkop jame neznane namembnosti. / *Large circular shaped cut filled with SU 1992/07; a pit of unknown origin and use.*	4b
1992/30-31		Kv. / *Q.* 5-6	Vkop napolnjen s temnorjavo, mastno prstjo domala brez najdb, le na dnu rimski novec; polnilo in vkop jame neznane namembnosti. / *A round shaped cut filled with dark-brown clay with the singular artefact, a coin pressed in the bottom; a pit of unknown origin and use.*	3
1992/32-33		Kv. / *Q.* 18-23	Večja okrogla jama, polnilo in vkop; jama neznane namembnosti. / *Large circular shaped pit, fill and cut; a pit of unknown origin and use.*	4b
1994/01		J od kapele / *South of the Chapel*	Estrih; hodna površina. / *Mortar pavement; ground level.*	4b
1994/02	180	J od kapele / *South of the Chapel*	Tanka rdeče ožgana peščena plast; dejavnosti v času uporabe hodne površine, plast je bila (drugotno) ožgana v požaru. / *Thin sandy layer, burnt reddish; a layer of ground level activities, burnt in the fire.*	4b
1994/03	178	J od kapele / *South of the Chapel*	Plast žganine z železnimi ostanki; nastala je v požaru. / *Burn layer with iron artefacts; burnt layer originated in the fire.*	4b
1994/04		J od kapele / *South of the Chapel*	Drobna ruševina, pretežno malta in pesek; ruševine z odstranjenim kamenjem. / *Fine rubble, predominantly mortar and sand; destruction layer with robbed-out building rocks.*	4c
1994/05	176	J od kapele / *South of the Chapel*	Rumena do rdeče žgana plast ilovice; izravnava za kasnejšo hodno površino, morda v povezavi z uporabo kapele. / *Yellow clay, partially burnt reddish; levelling for the ground level, most likely in connection to the chapel.*	4c
1994/06		J od kapele / *South of the Chapel*	Peščena ruševinska plast; ruševine z odstranjenim večjim kamenjem. / *Sandy rubble; destruction layer with robbed-out building stones.*	5
1994/07		J od kapele / *South of the Chapel*	Črna ruševinska plast; moderne dejavnosti ali humus. / *Black rubble layer; modern activities and humus.*	5
Zid / *Wall* 1			Dvodelen zid grajen iz bolj (1b) ali manj (1a) natančno obdelanih kvadrov debel 1 do metra (plaščni zid 1c 1,8 metra); plaščni in obodni zid ter stavba "1. palacija". / *Single face wall, built from more (1b) or less (1a) worked stone, up to 1 m thick (curtain wall 1c 1.8 m); castle walls and 1st palatium building.*	4a
Zid / *Wall* 2			Dvodelen zid grajen iz lomljencev debel do 1,8 metra; zid stavbe "2. palacija" / *Single face wall, built from roughly worked stone, up to 1.8 m thick; 2nd palatium building.*	4b
Zid / *Wall* 3			Verjetno trodelen zid iz lomljencev v tehniki plastene zidave s črtnim fugiranjem debeline do 2 metra; enoten zid kapele. / *Most likely double faced wall built from roughly worked stone with line fugue up to 2 m thick; chapel wall.*	4b
Zid / *Wall* 4			Dvodelen zid grajen iz lomljencev debel 0,9 metra; predelna stena pritličja "2. palacija". / *Single face wall, built from roughly worked stone, up to 0.9 m thick; the 2nd palatium dividing wall.*	4b

SE / *SU*	ZE / *CU*	Območje / *Area*	Opis*; interpretacija / *Description*; Interpretation*	Faza / *Phase*
Zid / *Wall* 5			Okrogel zidan podpornik premera 1,3 metra; verjetno podpornik lesenega stebra. / *Round stone-built base with 1.3 m diameter; most likely a base for wooden column.*	4b
Zid / *Wall* 6			Okrogel zidan podpornik premera 1,3 metra; verjetno podpornik lesenega stebra. / *Round stone-built base with 1.3 m diameter; most likely a base for wooden column.*	4b
Zid / *Wall* 7			Zid, ohranjen le temelj, debeline 0,9 metra; namen neznan. / *Wall, only foundation preserved, up to 0.9 m thick; interpretation unknown.*	4b
Zid / *Wall* 8			Zid, ohranjen le temelj, debeline 0,9 metra; namen neznan. / *Wall, only foundation preserved, up to 0.9 m thick; interpretation unknown.*	4b
Zid / *Wall* 9			Dvodelen zid iz lomljencev; plaščni zid kapele, za statično stabilnost. / *Single face wall, built from roughly worked stone; the chapel wall added for stability.*	5
Zid / *Wall* 10			Dvodelen zid grajen iz manj natančno obdelanih kvadrov debeline 1 meter; obodni zid, del vhoda. / *Single face wall, built from roughly worked stone, up to 1 m thick; the castle wall, part of the entrance.*	4a
Zid / *Wall* 11			Dvodelen zid iz lomljencev debeline 1 meter; zapiranje vhoda. / *Single face wall, built from roughly worked stone, up to 1 m thick; the castle wall, closing of the entrance.*	4b
Zid / *Wall* 12			Dvodelen zid iz lomljencev z vogalnimi kvadri debeline 1 meter; zožanje ali popravilo vhoda. / *Single face wall, built from roughly worked stone, up to 1 m thick; the castle wall, narrowing or repair of the entrance.*	4b
Zid / *Wall* 13			Dvodelen zid iz neobdelanih kamnov; pomožni zid. / *Single face wall, built from roughly worked stone; supporting wall.*	4b
Zid / *Wall* 14			Dvodelen zid iz lomljencev debeline 1 meter; neznan namen. / *Single face wall, built from roughly worked stone, up to 1 m thick; interpretation unknown.*	4b
Zid / *Wall* 15			Dvodelen zid i lomljencev debeline 1 meter; neznan namen. / *Single face wall, built from roughly worked stone, up to 1 m thick; interpretation unknown.*	4b
Zid / *Wall* 16			Dvodelen zid grajen iz manj natančno obdelanih kvadrov z deli, grajeni v tehniki ribja kost; namen neznan. / *Single face wall, built from roughly worked stone in fishbone pattern, up to 1 m thick; interpretation unknown.*	4a
Zid / *Wall* 17			Dvodelen zid iz lomljencev debeline 1 meter; obodni zid. / *Single face wall, built from roughly worked stone, up to 1 m thick; castle wall.*	4b
Zid / *Wall* 18			Zid grajen iz dobro obdelanih kvadrov debeline do 2,5 metra; kvadratni stolp. / *Single face wall, built from dressed blocks, up to 2.5 m thick; the square-based tower.*	4b
Zid / *Wall* 19			Zid grajen v tehniki vogalnih kamnov; obod (stolpaste) utrdbe. / *Double faced wall built in quoins technique; the fortress tower.*	5
Zid / *Wall* 20			Dvodelen zid debeline 1 meter; namen neznan. / *Single face wall, built from roughly worked stone, up to 1 m thick; interpretation unknown*.	4b

* Natančnost opisa ni enotna, saj je neposredno odvisna od kakovosti izkopavalnih podatkov.
The description varies according to the original documentation.

** Zaradi pomanjkljive dokumentacije obravnavano enotno, kot ena stratigrafska enota.
Treated as one SU due to the insufficient original documentation.

Priloga 4

SEZNAM ZBIRALNIH ENOT

Legenda

1. vrstica
Številka zbiralne enote, zanesljivost konteksta (NZ - nezanesljiv, Z - zanesljiv, ZZ - zelo zanesljiv), faza (kadar je znana)
2. vstica: opis.

1, NZ
Najdbe iz mešanih kontekstov na grajskem dvorišču. / *Finds from mixed contexts in inner bailey.*

2, Z, 4b
Najdbe iz plasti na hodni površini (4b) osrednjega dela grajskega dvorišča, verjetno SE 1992/06. / *Finds derive from layers on the ground level (4b) in the central part of inner bailey, most likely SU 1992/06.*

3, Z, 4b
Glej ZE 2. / *See CU 2.*

4, NZ
Glej ZE 1. / *See CU 1.*

5, Z, 4b
Glej ZE 2. Med najdbami je izključno visokosrednjeveška lončenina. / *See CU 2. Finds are exclusively high medieval pottery.*

6, Z, 4b
Polnilo vkopa ali vdolbine (4b) na osrednjem delu grajskega dvorišča, ki pa je ni možno umestiti v prostor. / *Cut filling (4b) from the central part of inner bailey, precise location unknown.*

7, Z, 4b
Glej ZE 2. / *See CU 2.*

8, NZ
Glej ZE 1. / *See CU 1.*

9, NZ, 4ab
Mešano gradivo iz hodne površine (4b, verjetno 1992/06) in iz plasti neposredno pod hodno površino (4a) na grajskem dvorišču. / *Mixed finds on the ground level (4b, most likely SU 1992/06) and from layer directly beneath ground level (4a) in inner bailey.*

10, Z, 5
Najdbe iz ruševinskih plasti (5) na osrednjem delu grajskega dvorišča; med najdbami močno prevladuje novoveška lončenina. / *Finds from destruction layers (5) in the central part of inner bailey; finds are predominantly post-medieval pottery.*

11, NZ
Glej ZE 1. / *See CU 1.*

12, ZZ, 3
Najdbe iz SE 1992/05 iz osrednjega dela grajskega dvorišča. Opis: plast temnorjave ilovice s pretežno zgodnjesrednjeveško lončenino in s posameznimi zaobljenimi odlomki prazgodovinske lončenine. / *Finds from SU 1992/05 from the central part of inner bailey. Description: layer of dark-brown clay with predominantly early medieval and some abrased prehistory shards.*

13, Z, 4b
Glej ZE 2. / *See CU 2.*

14, ZZ, 4b
Najdbe iz SE 1992/06 iz osrednjega dela grajskega dvorišča. / *Finds from SU 1992/06 from the central part of inner bailey.*

15, Z, 4b
Glej ZE 2. / *See CU 2.*

16, NZ
Glej ZE 1. / *See CU 1.*

17, NZ
Glej ZE 1. / *See CU 1.*

18, NZ
Glej ZE 1. / *See CU 1.*

19, NZ
Glej ZE 1. / *See CU 1.*

20, ZZ, 3
Glej ZE 12. / *See CU 12.*

21, NZ
Glej ZE 1. / *See CU 1.*

22, NZ
Glej ZE 1. / *See CU 1.*

23, Z, 5
Glej ZE 10. / *See CU 10.*

24, ZZ, 4b
Najdbe iz južnega dela "2. palacija" izvirajo iz ruševinskih plasti nadstropij (SE 1990/17). / *Finds from the destruction layers (SU 1990/17) of southern part of "2nd palatium".*

25, Z, 5
Glej ZE 10. / *See CU 10.*

26, NZ
Glej ZE 1. / *See CU 1.*

Appendix 4

LIST OF COLLECTIVE UNITS

Legend

1st line
The number of collective unit, the reliability of the context (NZ - mixed, Z - uncertain, ZZ - certain), phase (when known).
2nd line: description.

27, Z, 4b
Glej ZE 2. Med najdbami je izključno visokosrednjeveška lončenina, veliko odlomkov je sestavljivih. / *See CU 2. Finds are exclusively high medieval pottery, many shards can be joined.*

28, Z, 4b
Glej ZE 2. Med najdbami je veliko živalskih kosti (izgubljeno) in izključno visokosrednjeveška lončenina, veliko odlomkov je sestavljivih. / *See CU 2. Many animal bones (lost) and exclusively high medieval pottery; many shards can be joined.*

29, ZZ, 4b
Glej ZE 14. Med najdbami je tudi puščična ost (t. 5: 15). / *See CU 14. Arrowhead (t. 5: 15) among finds.*

30, ZZ, 4ab
Najdbe iz polnila vkopa SE 1992/08. / *Finds from cut filling SU 1992/08.*

31, ZZ, 3
Najdbe iz SE 1992/04 iz osrednjega dela grajskega dvorišča. / *Finds from SU 1992/04 in the central part of inner bailey.*

32, ZZ, 4ab
Glej ZE 30. / *See CU 30.*

33, NZ
Glej ZE 1. / *See CU 1.*

34, NZ
Glej ZE 1. / *See CU 1.*

35, NZ
Glej ZE 1. / *See CU 1.*

36, NZ
Glej ZE 1. Med najdbami močno prevladuje poznosrednjeveška lončenina. / *See CU 1. Finds are predominantly late medieval pottery.*

37, NZ
Glej ZE 1, morda SE 1992/06. / *See CU 1, possibly SU 1992/06.*

38, NZ
Glej ZE 1. / *See CU 1.*

39, NZ
Glej ZE 1. / *See CU 1.*

40, ZZ, 4b
Najdbe iz SE 1992/07 v osrednjem delu grajskega dvorišča. / *Finds from SU 1992/07 in the central part of inner bailey.*

41, NZ
Glej ZE 1. / *See CU 1.*

42, ZZ, 2
Najdbe iz SE 1992/03 v osrednjem delu grajskega dvorišča. Med najdbami so samo zaobljeni odlomki prazgodovinske lončenine. / *Finds from SU 1992/03 in the central part of inner bailey. Finds are exclusively abrased prehistoric shards.*

43, NZ
Glej ZE 1. Kljub kopanju različnih plasti hkrati so kovinske najdbe zanesljivo opredeljene v SE 1992/06. Te najdbe so veriga iz kavljastih členkov (t. 6: 1), lečasto kresilo (t. 1: 3) in puščica (neidentificirana). / *See CU 1. Despite several layers have been excavated simultaneously the metal finds certainly derive from SU 1992/06. The finds are (t. 6: 1), (t. 1: 3) and an arrowhead (unidentified).*

44, NZ
Glej ZE 1. / *See CU 1.*

45, NZ
Glej ZE 1. / *See CU 1.*

46, ZZ, 4b
Najdbe iz SE 1992/09 iz osrednjega dela grajskega dvorišča. / *Finds from SU 1992/09 from the central part of inner bailey.*

47, NZ
Glej ZE 1. Med najdbami prevladuje poznosrednjeveška lončenina, manlo je novoveške. / *See CU 1. Finds are predominantly late medieval pottery and some post-medieval.*

48, Z, 5
Glej ZE 10. / *See CU 10.*

49, Z, 4b
Glej ZE 10. / *See CU 10.*

50, NZ
Glej ZE 1. / *See CU 1.*

51, NZ
Glej ZE 1. / *See CU 1.*

52, Z, 4b
Glej ZE 2. / *See CU 2.*

53, Z, 5
Glej ZE 10. / *See CU 10.*

54, Z, 4b
Glej ZE 2. Opis: maltni tlak je bil na nekaterih mestih preplasten v času uporabe hodne površine (4b). / *See CU 2. Description: the ground level mortar pavement has been overlaid in several places during its use (4b).*

55, ZZ, 3
Glej ZE 31. Med najdbami so bili tudi odlomki eneolitske lončenine, kar pomeni, da so izkopavalci "prebili" eneolitsko plast. Obravnavani odlomki lončenine so zgodnjesrednjeveški. / *See CU 31. Eneolithic shards among finds suggest that the excavators dug through to the prehistoric layers as well. The shards in this CU are exclusively early medieval, though.*

56, ZZ, 3
Glej ZE 31.

57, Z, 1
Najdbe, infiltrirane v ilovnato geološko osnovo. / *Find were infiltrated in geological layers.*

58, ZZ, 2
Glej ZE 42. / *See CU 42.*

59, ZZ, 2
Glej ZE 42. / *See CU 42.*

60, NZ
Glej ZE 1. / *See CU 1.*

61, Z, 4b
Glej ZE 6. / *See CU 6.*

62, Z, 4b
Glej ZE 6. / *See CU 6.*

63, NZ
Glej ZE 1. Med najdbami je tudi puščična ost (neidentificirana). / *See CU 1. Among finds is arrowhead (unidentified).*

64, NZ
Glej ZE 1. / *See CU 1.*

65, NZ
Glej ZE 1. / *See CU 1.*

66, NZ
Glej ZE 1. Med najdbami prevladuje visokosrednjeveška lončenina, veliko odlomkov je sestavljivih. / *See CU 1. Finds are predominantly high medieval pottery, many shards fit together.*

67, NZ
Glej ZE 1. / *See CU 1.*

68, NZ
Glej ZE 1. / *See CU 1.*

69, NZ
Glej ZE 1. / *See CU 1.*

70, NZ
Glej ZE 1. Odlomki lončenine so zgodnjesrednjeveški. / *See CU 1. The shards are early medieval.*

71, NZ
Glej ZE 1. / *See CU 1.*

72, Z, 4b
Glej ZE 2. / *See CU 2.*

73, NZ
Glej ZE 1. / *See CU 1.*

74, NZ
Glej ZE 1. / *See CU 1.*

75, ZZ, 4B
Glej ZE 14. / *See CU 14.*

76, NZ
Glej ZE 1. / *See CU 1.*

77, NZ
Glej ZE 1, morda SE 1992/06. / *See CU 1, possibly SU 1992/06.*

78, NZ
Glej ZE 1. / *See CU 1.*

79, NZ
Glej ZE 1. / *See CU 1.*

80, NZ
Glej ZE 1. / *See CU 1.*

81, NZ
Glej ZE 1. Opis: najdbe najverjetneje izvirajo iz najstarejših plasti tik nad ilovnato geološko osnovo, vendar zaradi razgibane geomorfologije ne moremo izključiti prisotnosti mlajših kontekstov. / *See CU 1. Description: the finds most likely derive from the oldest archaeological layers just above the natural clay; due to the uneven terrain, though, the presence of younger contexts cannot be excluded.*

82, Z, 4b
Glej ZE 2. / *See CU 2.*

83, NZ
Glej ZE 1. / *See CU 1.*

84, NZ
Glej ZE 1. / *See CU 1.*

85, NZ
Glej ZE 1. / *See CU 1.*

86, NZ
Glej ZE 1. / *See CU 1.*

87, NZ
Glej ZE 1. / *See CU 1.*

88, NZ
Glej ZE 1. / *See CU 1.*

89, NZ
Mešano gradivo (2, 3, 4a) iz plasti pod maltnim tlakom (SE 1992/10). / *Mixed finds (2, phase 3, phase 4a) under the mortar pavement (SU 1992/10).*

90, NZ
Glej ZE 1. / *See CU 1.*

91, Z, 4b
Glej ZE 2. / *See CU 2.*

92, NZ
Glej ZE 1. / *See CU 1.*

93, NZ
Glej ZE 1. / *See CU 1.*

94, NZ
Glej ZE 1. / *See CU 1.*

95, NZ
Glej ZE 1. / *See CU 1.*

96, NZ
Glej ZE 1. / *See CU 1.*

97, NZ
Glej ZE 1. / *See CU 1.*

98, NZ
Glej ZE 1. / *See CU 1.*

99, NZ
Glej ZE 1. / *See CU 1.*

100, NZ
Najdbe iz ruševinskih plasti v osrednjem delu "2. palacija". / *Finds from destruction layers in the midsection of the "2nd palatium".*

101, NZ
Glej ZE 1. / *See CU 1.*

102, Z, 4b
Najdbe iz žganinskih (4b) plasti v osrednjem delu "2. palacija". / *Finds from burnt layers (4b) in the midsection of the "2nd palatium".*

103, ZZ, 4b
Najdbe iz SE 1986/03 v zahodnem delu "1. palacija". Opis: v severnem delu zogleneli ostanki stropne konstrukcije. Med najdbami neposredno iz žganinske plasti sta tudi dve železni pasni sponi (neidentificirani). / *Finds from SU 1986/03 in the western part of the "1st palatium". Description: burnt remains of the wooden-floor construction in the northern part; two iron buckles (unidentified) among finds.*

104, ZZ, 4b
Glej ZE 103. / *See CU 103.*

105, NZ
Najdbe ob čiščenju površine nad SE 1990/10 v osrednjem delu "2. palacija". / *Finds from cleaning the surface above SU 1990/10 in the midsection of the "2nd palatium".*

106, NZ
Najdbe ob čiščenju površine nad SE 1989/01 v osrednjem delu "2. palacija". / *Finds from cleaning the surface above SU 1989/01 in the midsection of the "2nd palatium".*

107, NZ
Najdbe iz žganinskih (4b) in prazgodovinskih (2) plasti v osrednjem delu "2. palacija". / *Finds from burnt (4b) and prehistoric (2) layers in the midsection of the "2nd palatium".*

108, NZ
Glej 107. / *See CU 107.*

109, NZ
Najdbe iz različnih plasti v osrednjem delu "2. palacija". / *Finds from mixed layers in the midsection of the "2nd palatium".*

110, NZ
Glej ZE 109. / *See CU 109.*

111, NZ
Najdbe pod žganinskimi plastmi (4b) v osrednjem delu "2. palacija". / *Finds under the burnt layers (4b) in the midsection of the "2nd palatium".*

112, NZ
Glej ZE 109. / *See CU 109.*

113, NZ
Najdbe ob čiščenju površine nad SE 1990/10 v osrednjem delu "2. palacija". / *Finds from cleaning the surface above SU 1990/10 in the midsection of the "2nd palatium".*

114, NZ
Glej ZE 109. / *See CU 109.*

115, N
Glej ZE 109. / *See CU 109.*

116, NZ
Glej ZE 109. / *See CU 109.*

117, NZ
Glej ZE 109. / *See CU 109.*

118, NZ
Glej ZE 1. / *See CU 1.*

119, NZ
Glej ZE 109. / *See CU 109.*

120, NZ
Glej ZE 100. / *See CU 100.*

121, NZ
Glej ZE 100. / *See CU 100.*

122, NZ
Glej ZE 109. / *See CU 109.*

123, NZ, 4
Najdbe iz plasti s hodne površine ene izmed obeh faz (4a ali 4b) v osrednjem delu "2. palacija". Opis: ker je omenjen ohranjen maltni tlak gre verjetno za fazo (4b). Med najdbami je tudi železen nož (neidentificiran). / *Finds from one of the high medieval ground levels (4a or 4b) in the midsection of the "2nd palatium". Description: the mentioning of the mortair pavement suggests younger phase (4b). Iron knife (unidentified) among finds.*

124, NZ
Mešane najdbe iz južnega dela "2. palacija" izvirajo iz ruševinskih plasti (4b). / *Mixed finds from the destruction layers (4b) in the southern part of "2nd palatium".*

125, ZZ, 4b
Glej ZE 24. / *See CU 24.*

126, NZ
Najdbe iz ruševinskih plasti južnega dela "2. palacija". Opis: omenjena je superpozicija ruševinskih plasti (4b) pod SE 1990/21 ter SE 1990/20. / *Finds from destruction layers in the southern part of "2nd palatium". Description: superposition of the destruction layers (4b) under SU 1990/21 and SU 1990/20.*

127, NZ
Glej ZE 126. / *See CU 126.*

128, ZZ, 4b
Najdbe SE 1990/14 iz južnega dela "2. palacija". Med najdbami je tudi sulična ost (t. 5: 1). / *Finds from SU 1990/14 in the southern part of "2nd palatium". Spear (t. 5: 1) among finds.*

129, Z
Glej ZE 126. / *See CU 126.*

130, ZZ, 4b
Glej ZE 128. / *See CU 128.*

131, ZZ, 4a
Najdbe iz SE 1990/08 v južnem delu "2. palacija". Opis: temnorjava izravnalna plast, pripravo hodne površine najstarejšega gradu (4a). Uporabljen material je premeščen iz drugih delov

grajskega griča, zato so med najdbami poleg številnih odlomkov visokosrednjeveške lončenine tudi močno zaobljeni odlomki prazgodovinske in rimskodobne lončenine. Med najdbami na vrhu plasti so tudi nož (neprepoznan), šilo (t.6: 5), brus (neprepoznan) in ostroga (t. 3: 4). / *Finds from SU 1990/08 in the southern part of the "2nd palatium". Description: dark-brown levelling layer is the ground level of the oldest castle (4a). The material used derives from entire castle hill, therefore roman and prehistoric rounded shards are present along with the majority of high medieval pottery. Among finds situated on the top of this layer are a knife (unidentified) awl (t.6: 6), grindstone (lost) and spur (t. 3: 4).*

132, NZ
Glej ZE 109. / *See CU 109.*

133, Z, 4c
Najdbe iz ruševinskih plasti (4) na prostoru med "2. palacijem" in kapelo. / *Finds from destruction layers (4) between "2nd palatium" and the chapel.*

134, ZZ, 4a
Glej ZE 131. / *See CU 131.*

135, ZZ, 4b
Glej ZE 128. / *See CU 128.*

136, NZ
Glej ZE 129 / *See CU 129.*

137, NZ
Glej ZE 1. / *See CU 1.*

138, NZ
Glej ZE 109. / *See CU 109.*

139, ZZ, 4b
Glej ZE 128. / *See CU 128.*

140, Z
Glej ZE 129. / *See CU 129.*

141, Z
Glej ZE 129. / *See CU 129.*

142, NZ
Glej ZE 129. Med najdbami je tudi preluknjan rimski novec (izgubljen). / *See CU 129. Pierced roman coin (lost) among finds.*

143, ZZ, 4a
Najdbe iz SE 1990/09 v jugozahodnem vogalu "2. palacija". Opis: približno 30 x 40 cm zbite in ožgane ilovice, najverjetneje ognjišče, tudi sicer je v neposredni okolici na površini kake 4 kvadratnih metrov veliko drobcev ožgane ilovice in veliko lončenine. Med najdbami so tudi odlomki močno zaobljene prazgodovinske lončenine v drugotni legi. / *Finds from SU 1990/09 in south-western corner of the "2nd palatium". Description: approximately 30 x 40 cm of hardened burnt clay, most likely a hearth; in the area of 4 square m around is a concentration of small pieces of burnt clay and pottery shards (predominantly high medieval with some rounded prehistory shards).*

144, ZZ, 4b
Glej ZE 128. / *See CU 128.*

145, ZZ, 4a
Glej ZE 131. / *See CU 131.*

146, ZZ, 4b
Glej ZE 128. / *See CU 128.*

147, NZ
Glej ZE 129. / *See CU 129.*

148, ZZ, 4b
Glej ZE 128. Med najdbami je tudi sulična ost (t. 5: 1). / *See CU 128. Spear (t. 5: 1) among finds.*

149, NZ
Glej ZE 127. / *See CU 127.*

150, NZ, 4
Glej ZE 129. / *See CU 129.*

151, Z, 4
Najdbe na in delno v ilovnati izravnalni plasti (4) v južnem delu "2. palacija". Opis: ilovica med živimi skalami, teren je bil pred postavitvijo gradu mestoma izravnan s plastjo ilovice. Pod plastjo ilovice so namreč na nekaj mestih na krpe žganine (3). / *Finds from within and partially on the levelling clay layer (4) in the southern part of the "2nd palatium". Description: clay occurs in bedrock cracks; it was used to level the ground before the castle was built since under this clay several patches of burnt layers (3) were found.*

152, ZZ, 4b
Glej ZE 128. / *See CU 128.*

153, ZZ, 4b
Najdbe iz SE 1990/16 iz južnega dela "2. palacija". Opis: rjava, nekoliko peščena plast tik pod žganino (SE 1991/07) nad maltnim tlakom (SE 1990/15). / *Finds from SU 1990/16 in the southern part of "2nd palatium". Description: brown sandy layer just under the burnt layer (SU 1991/07) and above the mortar pavement (SU 1990/15).*

154, ZZ, 4b
Glej ZE 128. Med najdbami so tudi odlomek srpa (t. 3: 1), zagozda (t. 3: 2), čohalo (t. 4: 1) in bronast okov (t. 7: 13). / *See CU 128. Sickle fragment (t. 3: 1), wedge (t. 3: 2), curry combo (t. 4: 1) and bronze attachment (t. 7: 13) among finds.*

155, ZZ, 4b
Glej ZE 128. / *See CU 128.*

156, ZZ, 4a
Glej ZE 131. / *See CU 131.*

157, NZ
Glej ZE 127. Med najdbami je tudi puščična ost (t. 5: 13). / *See CU 127. Arrowhead (t. 5: 13) among finds.*

158, ZZ, 4b
Glej ZE 153. Med najdbami je tudi kos staljenega železa, sprijetega z ometom. / *See CU 153. A piece of melted iron attached to wall plaster among finds.*

159, NZ
Glej ZE 129. Med najdbami je tudi otka (t. 3: 3). / *See CU 129. Among finds is tool for cleaning the plough (t. 3: 3).*

160, Z, 4b
Najdbe iz neznanega konteksta (4b) v južnem delu "2. palacija", na pragu vhoda. Med najdbami je tudi podkovski

žebelj (t. 7: 5). / *Finds from mixed context (4b) in the southern part of the "2nd palatium", on the doorstep. Horseshoe-nail (t. 7: 5) among finds.*

161, ZZ, 4a
Glej ZE 131. / *See CU 131.*

162, ZZ
Glej ZE 128. / *See CU 128.*

163, Z, 4c
Najdbe iz ruševinskih plasti (4) na skrajnem južnem delu "2. palacija" in na prostoru med "2. palacijem in kapelo. / *Finds from destruction layers (4) between the extreme southern end of the "2nd palatium" and the chapel.*

164, NZ
Najdbe iz mešanih kontekstov na skrajnem južnem delu "2. palacija" in na prostoru med "2. palacijem in kapelo. / *Finds from mixed contexts between the extreme southern end of the "2nd palatium" and the chapel.*

165, ZZ, 4b
Najdbe iz SE 1991/07 v jugovzhodnem delu "2. palacija". Opis: ob zidu 1 je bilo najdeno veliko zoglenelega žitnega zrnja in lonček (t. 8: 4). Plast s površino 2 x 3 m je do 30 cm debela. Plast žganine je ležala na živi skali (SE 1991/01) in v prostorih med njo na rdečkastorumeni ilovici (SE 1991/02). Najverjetneje iz te plasti izvira pšenično zrno, ki je bilo datirano s C14 metodo (glej poglavje 8.4). / *Finds from SU 1991/07 in south-eastern part of the "2nd palatium". Description: burnt cereals and fragmented pot (t. 8: 4) at wall . The layer of 2 x 3 m is up to 30 cm thick is situated directly on the bedrock (SU 1991/01) or in cracks on the natural clay (SU 1991/02). The C14 dated wheat grain most likely derives from this layer (ch. 8.4).*

166, Z, 4c
Glej ZE 133. / *See CU 133.*

167, NZ
Glej ZE 1. / *See CU 1.*

168, NZ
Glej ZE 1. / *See CU 1.*

169, NZ
Glej ZE 1. / *See CU 1.*

170, NZ
Glej ZE 1. / *See CU 1.*

171, NZ
Glej ZE 1. / *See CU 1.*

172, NZ
Glej ZE 1. / *See CU 1.*

173, NZ
Glej ZE 1. / *See CU 1.*

174, NZ
Glej ZE 1. / *See CU 1.*

175, NZ
Glej ZE 1. Med najdbami je tudi novec (poglavje 5.8, številka 5). / *See CU . Coin (ch. 5.8, No. 5) among finds 1.*

176, Z
Glej ZE 1. / *See CU 1.*

177, NZ
Glej ZE 1. / *See CU 1.*

178, ZZ, 4b
Glej ZE 2. Med najdbami so tudi zapah (t. 7: 14) in nosilca zapaha (t. 7: 1,2). / *See CU 2. Bolt (t. 7: 14) and two staples (t. 7: 1, 2) among finds.*

179, NZ
Glej ZE 1. / *See CU 1.*

180, ZZ, 4b
Glej ZE 1. / *See CU 1.*

181, NZ
Glej ZE 1. / *See CU 1.*

182, ZZ, 4b
Najdbe iz SE 1991/07 v jugovzhodnem delu "2. palacija". Opis lesene konstrukcije: dobro ohranjeni deli štirih 1 m dolgih vzporednih tramov s presekom 20 x 20 cm so ležali po širini preko "2. palacija". Na enem delu so se pokazali tudi ostanki desk, ki so ležale pravokotno na tramove. / *Finds from SU 1991/07 in south-eastern part of the "2nd palatium". Wood-floor construction description: 4 1 m long parallel beams, 20 x 20 cm in section oriented paralle to the shorter palatium walls; remnants of planks perpendicular to the beams.*

183, Z, 4c
Glej ZE 133. Med najdbami sta tudi brzda (t. 4: 2) in nož (neprepoznan). / *See CU 133. Bit (t. 4: 2) and knife (unidentified) among finds.*

184, ZZ, 4b
Najdbe iz SE 1991/06 v jugovzhodnem delu "2. palacija". / *Finds from SU 1991/06 in south-eastern part of the "2nd palatium".*

185, Z, 4c
Glej ZE 133. / *See CU 133.*

186, ZZ, 4b
Najdbe iz SE 1991/04 v jugovzhodnem delu "2. palacija". Opis: maltni tlak ohranjen v izmeri 4 x 1 m, med zidovi 2, 8 in 6. / *Finds from SU 1991/04 in south-eastern part of the "2nd palatium«. Description: mortar pavement 4 x 1 m preserved between walls 2, 8 and 6.*

187, NZ
Najdbe iz mešanih kontekstov na prostoru med "2. palacijem" in kapelo. / *Finds from mixed contexts between "2nd palatium" and the chapel.*

188, ZZ, 4b
Najdbe iz ruševine nad ilovico (4b) v vzhodnem delu "1. palacija". Opis plasti nad tlakom "1. palacija" (4a): ruševinska plast (najdbe: izgubljena sulična ost), 5 cm debela izravnalna plast rumene ilovice (4b), tanka rdečkasto ožgana peščena plast, 20-30 cm debela plast ožganih ruševinskih kamnov, intenzivna plast žganine (4b). / *Finds from destruction layer (4b) in eastern part of the "1st palatium". Description of layers above 1st palatium's mortar pavement (4a): a destruction layer (find: lost spear) levelled with 5 cm thick layer of yellowish clay (4b), reddish burnt sandy layer (4b), 20-30 cm thick destruction layer of burnt demolished-wall-rocks, and a burnt layer (4b).*

189, Z, 4b
Podobno ZE 188, v črni plasti tik nad prazgodovinsko (4a) je bil najden srebrn breški pfenning (poglavje 5.8, št. 2). / *Similar to CU 188, in the black layer (4a) just above the prehistoric layer. Silver coin (ch. 5.8, No. 2) among finds.*

190, NZ
Najdbe v zahodnem delu "1. palacija". Opis: omenjeni sta ruševinska plast (4c) in žganina (4b). / *Finds in the western part of the "1st palatium". Description: destruction and burnt layers (4b) are mentioned.*

191, ZZ, 4b
Najdbe iz SE 1986/03 v vzhodnem delu "1. palacija". Opis: na večjih površinah se na temnorjavi podlagi pojavlja maltni tlak (1986/10), ki je zahodneje le delno ohranjen. Glej ZE 103. / *See CU 103. Finds from SU 1986/03 in eastern part of the "1st palatium". Description: substantial areas of mortar pavement (SU 1986/10) on dark-brown surface; in western part only partially preserved.*

192, ZZ, 4b
Najdbe iz SE 1986/03 v zahodnem delu "1. palacija". Opis: glej ZE 103. Med najdbami bronast obesek (prim. poglavje 5.9). / *Finds from SU 1986/03 in the western part of the "1st palatium". Description: see CU 103. Bronze application (ch. 5.9) among finds.*

193, NZ
Najdbe iz mešanih kontekstov v "1. palaciju". / *Finds from mixed contexts in the "1st palatium"*

194, Z, 4a
Najdbe iz različnih plasti v vzhodnem delu "1. palacija". Opis: omemba maltnega tlaka (4b); izkopavalci stratigrafskih podatkov ne podajajo, vendar je bil starejši maltni tlak (4a) ohranjen le v kotih. Najdbi veriga z okroglimi členki (t. 1: 1) in železnega kavlja (t. 1: 2) na tlaku (4b). / *Finds from mixed layers in eastern part of the "1st palatium". Description: mortar pavement (4b) is mentioned; no stratigraphical data, but mortar pavement was of older phase (4a) was scarcely preserved only in the corners. Chain (t. 1: 1) and double-hook (t. 1: 2) among finds on the mortar pavement (4b).*

195, NZ
Najdbe v vzhodnem delu "1. palacija". Opis: ožgana ilovica na izravnani plasti sterilne ilovice (4a). "Približno na tem nivoju" je bil najden tudi kos debelejše bronaste žice, morda zapestnice (izgubljeno). / *Finds in eastern part of the "1st palatium". Description: burn clay (4a) above the levelled natural clay. At approximately this level among finds a fragment of thick wire, possibly wristband (lost).*

196, ZZ, 4b
Najdbe izvirajo iz SE 1990/19 v južnem delu "2. palacija". / *Finds from SU 1990/19 in the southern part of the "2nd palatium".*

197, ZZ, 4b
Glej ZE 128. / *See CU 128.*

198, ZZ, 4b
Glej ZE 128. / *See CU 128.*

199, Z, 4b
Glej ZE 24. / *See CU 24.*

200, ZZ, 4b
Glej ZE 153. / *See CU 153.*

201, ZZ, 5
Najdbe iz SE 1990/20 iz južnega dela "2. palacija". / *Finds from SU 1990/20 in the southern part of "2nd palatium".*

202, ZZ, 4b
Najdbe iz SE 1990/12-13 v južnem delu "2. palacija". Opis: najdbe se kopičijo v , zasuti s kamenjem. Prevladuje keramika, veliko odlomkov je sestavljivih, med najdbami je tudi železno streme (t. 3: 5). / *Finds from SU 1990/12-13 in the southern part of the "2nd palatium". Description: finds are concentrated in pit filled with pebbles. Stirrup (t. 3: 5) and joinable pottery shards among finds.*

203, ZZ, 4b
Glej ZE 128. / *See CU 128.*

204, ZZ, 4b
Glej ZE 128. / *See CU 128.*

205, ZZ, 4b
Glej ZE 202. / *See CU 202.*

206, NZ
Najdbe iz južnega dela "2. palacija". / *Finds from the southern part of "2nd palatium".*

207, Z, 5
Glej ZE 129. / *See CU 129.*

208, Z, 5
Glej ZE 129. / *See CU 129.*

209, ZZ, 4a
Najdbe iz SE 1990/06 v južnem delu "2. palacija". / *Finds from SU 1990/06 in the southern part of the "2nd palatium".*

210, ZZ, 4b
Glej ZE 202. / *See CU 202.*

211, ZZ, 4b
Glej ZE 128. / *See CU 128.*

212, ZZ, 4b
Glej ZE 202. / *See CU 202.*

213, NZ
Glej ZE 1. / *See CU 1.*

214, NZ
Glej ZE 1. Med najdbami je tudi ključ (t. 2: 1). / *See CU 1. Among finds is the key (t. 2: 1).*

215, NZ
Glej ZE 1. / *See CU 1.*

216, NZ
Glej ZE 1. / *See CU 1.*

217, NZ
Glej ZE 1. / *See CU 1.*

218, NZ
Glej ZE 1. / *See CU 1.*

219, Z, 4b
Najdbe iz plasti s hodne površine (4b) v jugozahodnem delu grajskega dvorišča, najverjetneje SE 1992/06. Med najdbami so tudi

puščična ost (T. 5:11), srebrnik (poglavje 5.8, številka 4), zlatarsko orodje (T.6: 7). / *Finds from ground level (4b) in south-eastern part of the innerbailey, most likely SU 1992/06. Arrowhead (T. 5:11), silver coin (ch. 5.8, No. 4) and stem (T.6: 7) among finds.*

220, NZ
Glej ZE 1. / *See CU 1.*

221, NZ
Glej ZE 1. / *See CU 1.*

222, NZ
Glej ZE 1. / *See CU 1.*

223, NZ
Glej ZE 1. / *See CU 1.*

224, NZ
Glej ZE 1. / *See CU 1.*

225, NZ
Glej ZE 1. / *See CU 1.*

226, NZ
Glej ZE 1. / *See CU 1.*

227, NZ
Glej ZE 1. / *See CU 1.*

228, NZ
Glej ZE 1. / *See CU 1.*

229, NZ
Glej ZE 1. / *See CU 1.*

230, Z, 4b
Glej ZE 10. / *See CU 10.*

231, NZ
Glej ZE 1. / *See CU 1.*

232, NZ
Glej ZE 1. / *See CU 1.*

233, NZ
Najdbe iz mešanih kontekstov na prostoru med "2. palacijem" in kapelo. / *Finds from mixed contexts between the "2nd palatium" and the chapel.*

234, NZ
Mešano gradivo (2, 3, 4a) iz plasti pod maltnim tlakom (SE 1992/10). / *Finds from mixed contexts between the "2nd palatium" and the chapel.*

235, ZZ, 2
Najdbe iz SE 1990/03 v jugovzhodnem delu "2. palacija". Med najdbami so odlomki prazgodovinske in močno zaobljene rimskodobne lončenine. / *Finds from SU 1990/03 in south-eastern part of the "2nd palatium". Rounded roman and prehistoric shards among finds.*

236, NZ
Glej ZE 1. / *See CU 1.*

237, ZZ, 2
Glej ZE 235. / *See CU 235.*

238, ZZ, 2
Glej ZE 235. / *See CU 235.*

239, NZ
Glej ZE 1. / *See CU 1.*

240, NZ
Najdbe zahodnem delu "1. palacija". Opis: izkopavanje ruševinskih plasti (4c), najdbe izvirajo večinoma s hodne površine (4b). / *Finds fom mixed contexts in the western part of the "1st palatium". Description: excavating destruction layers (4c) most finds were found at ground level (4b).*

241, NZ
Glej ZE 1. Kljub kopanju različnih plasti hkrati je kovinska najdba zanesljivo opredeljene v SE 1992/06. Gre za puščično ost (t. 5: 14). / *See CU 1. Excavating several layers at the same time, metal finds derive from SU 1992/06. Arrowhead (t. 5: 14) among finds.*

242, NZ
Glej ZE 1. Kljub kopanju različnih plasti hkrati je kovinska najdba zanesljivo opredeljene v SE 1992/06. Gre za ključ (t. 2: 2). / *See CU 1. Excavating several layers at the same time, metal finds derive from SU 1992/06. Key (t. 2: 2) among finds.*

243, Z, 4b
Glej ZE 199.

244, Z, 4b
Glej ZE 219. Med najdbami sta tudi britev (t. 4: 3) in nož (neidentificiran). / *See CU 129. Razor (t. 4: 3) and knife (unidentified) among finds.*

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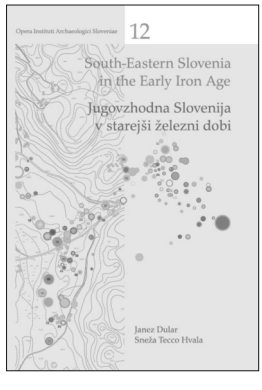
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Janez DULAR, Sneža TECCO HVALA

SOUTH-EASTERN SLOVENIA IN THE EARLY IRON AGE.
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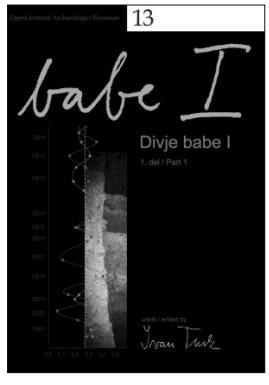
The topic of this monograph is southeastern Slovenia in the 1st millennium BC. The first part of the book deals with the history of research, data acquisition, with a critical discussion of archaeological sources, a geographic outline of the region, and an explanation of the chronological system used in the research.



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2007, (Opera Instituti Archaeologici Sloveniae, 12), 392 pp., 4 colour drawings and maps, 275 b-w drawings, photos, tables, graphs and maps, 21 x 29,5 cm, hardcover, ISBN 978-961-254-000-5.

Ivan TURK



DIVJE BABE I. Paleolitsko najdišče mlajšega pleistocena v Sloveniji. I. del
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In the first part of the Divje babe I monograph, data from the fields of the natural sciences are presented, analysed and interpreted. This is primarily stratigraphic, sedimentological and chronological data and data about the remains of flora and fauna. The latter includes detailed analysis of charcoal from a number of hearths and the remains of small and large mammals, with an emphasis on cave bear. The series of absolute ESR datings and the climatogram of the site should be highlighted in particular, which shows the course of temperature and humidity by layers in the chronozone of the Early and Middle Würm or oxygen isotope stages OIS 5 and OIS 3. The remains of flora and fauna from OIS 3 in particular are analysed, which enables new insight into palaeo-environmental and climatic conditions of this poorly known chronological segment in Slovenia and neighbouring regions. Archaeological finds, including Mousterian bone artefacts, will be presented in the planned second part of the monograph.

2007, (Opera Instituti Archaeologici Sloveniae, 13), 480pp, 10 colour photoogaphs, 178 b-w drawings, photoogaphs and maps, 89 tabels and 38 annexes; 21 x 29,5 cm, hardcover, ISBN

Andrej PLETERSKI
(Mit Beiträgen von Timotej Knific, Borut Toškan, Janez Dirjec, Benjamin Štular und von Mateja Belak)



ZGODNJESREDNJEVEŠKA NASELBINA NA BLEJSKI PRISTAVI. Najdbe.
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