



Slika 1: Prva meterološka postaja v Alpah, Observatorij Sonnblick v Avstriji /3106m.n.m./ ob ustanovitvi leta 1886 je najvišji gorski observatorij v Evropi in deluje še danes.  
*The first meteorological station in the Alps, the Sonnblick observatory in Austria /3106 m/ was established in 1886 and is still operational. It lies higher than any other observatory in Europe.*

Sliki 2,3: Prva slovenska planinska koča – Orožnova koča na Planini za Liscem; ob ustanovitvi l. 1894 (slika 2) in na njenem mestu nova, zgrajena l. 2004 (slika 3).  
*The first Slovene mountain lodge – Orožen's lodge on Planina behind Liseec, after opening in 1894 (figure 2) and the new one, built in 2004, in its place (figure 3).*



Slike 4,5,6: Način gradnje v Alpah danes: Planinska koča Saleinaz, Švica, zgrajena l. 1982.  
*Contemporary methods of building in the Alps: The mountain lodge Saleinaz, Switzerland, built in 1982.*



Slike 7,8,9: Način gradnje v Alpah danes: Bivak na grebenu Stola nad Breginjem, Slovenija, zgrajen l. 2002.  
*Contemporary methods of building in the Alps: Bivouac on the Stol ridge above Breginj, Slovenia, built in 2002.*

# OVOJNE KONSTRUKCIJE IN PODNEBJE V ALPAH ENVELOPE STRUCTURES AND THE ALPINE CLIMATE

raziskava, research

## povzetek

Alpe so rojstni kraj gorske meteorologije. Gorsko podnebje je skupek klimatskih elementov, ki se zaradi vpliva geografskih faktorjev razlikujejo od tistih v nižinah.

Alpiska arhitektura se mora prilagoditi ekstremnim podnebnim in reliefnim razmeram ter se istočasno zlivati z naravnim okoljem. Analiza ovojnih konstrukcij v alpinski arhitekturi je pokazala, da so to vedeli in upoštevali že prvi graditelji v neokrnjenem gorskem svetu, vse od postavljalcev osnovnih zavetišč, pastirskih, drvarskih in oglarskih, do graditeljev planinskih koč. Nekoliko izstopa le bivak.

Zavetišča in koče so bili narejeni iz lokalnih gradiv, praviloma iz lesa. Tega ni spremenil niti razvoj moderne tehnologije, zaradi nje se je močno spremenil edino način gradnje.

## doseženi cilji, namen in rezultati

Na sprehodu skozi zgodovino postavljanja človekovih občasnih in začasnih bivališč v gorskih območjih je poudarek namenjen analizi ovojne konstrukcije skozi osnovne arhitekturne elemente – tla, stene in streho. Namen je tudi razložiti delovanje alpskega podnebja.

Cilj raziskave je prikaz oblikovanja ovojnih konstrukcij in njihovih detajlov, na primerih arhitekturnih posegov v Alpah, s poudarkom na slovenskem alpskem prostoru. Na podlagi tega pa primerjati, če se po državah, ki se nahajajo v alpskem loku, arhitektura kaj razlikuje.

Rezultat gradnje, ki je nastajala v simbiozi z okoljem, v katerem je nastajala, in pod okriljem graditelja, ki je bil osveščen uporabnik prostora, je danes v alpskem svetu zelo podobna si arhitektura. In taki so nastavki tudi za vnaprej, saj spodbujanje trajnostnega načina življenja in gospodarjenja narekuje upoštevanje naravnih danosti in uporabo avtohtonih gradiv, obenem pa sodobnih tehničnih odkritij.

## problematika v arhitekturi, umestitev obravnavane teme v te tokove in njen pomen

Pri izboru preživljanja prostega časa je danes odločilen dejavnik neokrnjeno okolje, zato je treba podobo Alp ohranjati in spodbujati tudi v podobi njene arhitekture. Kakovostno prenovu in obnovo lahko dosežemo le na podlagi analize arhitektur avtohtonega okolja, ta pa nam obenem pokaže tudi poti in načine, kako ravnati pri novih posegih v ta občutljiv ambient. Dokaz o aktualnosti problematike je tudi razpis za mednarodno arhitekturno nagrado za nov način gradnje v Alpah, ki jo podeljuje italijanska občina Sexten, kjer se ocenjujejo umetniški pristop do posebnih podnebnih in tehničnih izzivov, značilnih za alpski prostor, pa tudi pristnost in sodobno razumevanje alpske kulture.

## ključne besede

Alpe, gorsko podnebje, ovojne konstrukcije, zavetišče, koča, bivak

## summary

*The Alps are the birthplace of mountain meteorology. The mountain climate is a sum of climatic elements that are influenced by geographic factors and very different from those in the valleys. Alpine architecture has to adapt to extreme climatic and terrain conditions, but simultaneously integrate with the natural setting. The analysis of envelope structures in Alpine architecture showed that this was common knowledge respected by the earliest builders in virgin mountain landscapes, all the way from builders of simple shelters (shepherds, charcoal makers, wood cutters) to builders of mountain lodges. The bivouac is somewhat of an exception.*

*Shelters and lodges were built out of local materials, mainly wood. Development of modern technology didn't change this, only the construction method changed significantly.*

## intentions, goals and results

*In our passage through the history of constructing temporary and transitory shelters in the Alpine area the emphasis is on analysis of envelope structures by using basic architectural elements – the floor, walls and roof. The intent is also to describe the Alpine climate.*

*The goal of the research was to present the design of envelope structures and their details by using examples of architectural interventions in the Alps and especially the Slovene Alpine space. Such foundation was used to compare whether the architecture in countries constituting the alpine arc, varies.*

*The result of construction that emerged from a symbiotic relationship with the nature it grew from and under the patronage of the builder – a conscious user of space, the modern Alpine space brings an image of very similar architecture. These are also the postulates for the future since promotion of sustainable ways of life and management dictate respect for natural conditions and use of autochthonous materials, but simultaneously also modern technical discoveries.*

## architectural issues, positioning the topic in ongoing debate and its' significance

*Today the unblemished environment is the decisive factor when choosing the way of spending one's leisure time, thus the image of the Alps has to be preserved and promoted, even with its architectural image. Quality renewal and rehabilitation can be achieved only on the basis of analysis of architecture of autochthonous environments, which also shows us the path and method to new solutions for this sensitive place. The proof of the topic's actuality is also the tender for an international architectural award granted by the Italian municipality of Sexten for new methods of building in the Alps, where the artistic approach to specific climatic and technical challenges typical for Alpine space is assessed, as well as the authenticity and contemporary understanding of Alpine culture.*

## key words

*the Alps, mountain climate, envelope structures, shelter, hut, bivouac*