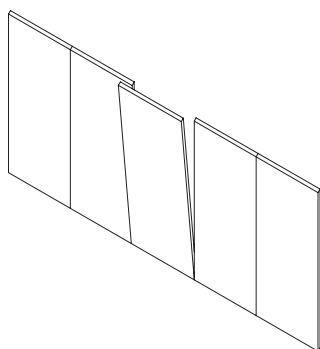
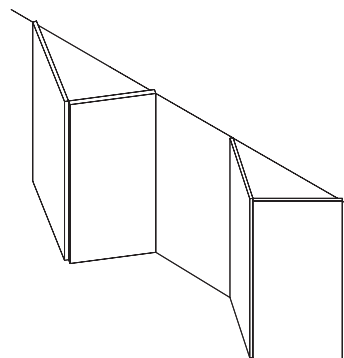
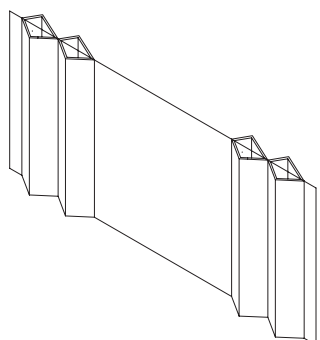




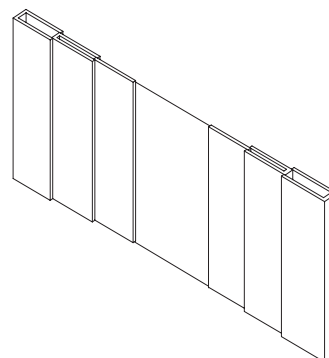
Slika 1: Demontažna stena.
Assembled wall.



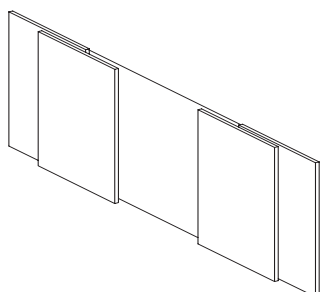
Slika 2: Pregibna stena.
Jointed wall.



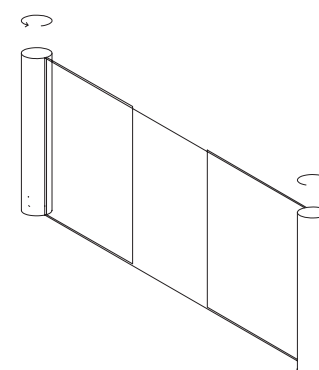
Slika 3: Harmonika stena.
Accordion wall.



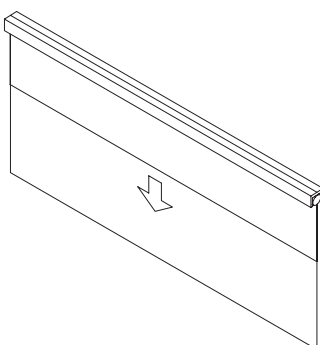
Slika 4: Teleskopska stena.
Telescope wall.



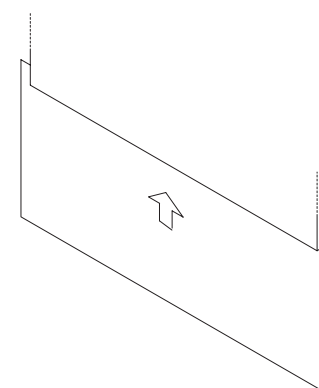
Slika 5: Drsna stena.
Sliding wall.



Slika 6: Navojna stena.
Rolled wall.



Slika 7: Zastor.
Screen.



Slika 8: Dvižna stena.
Bascule wall.

povzetek

Predelne stene v zgradbi ločujejo prostore, njihove ostale funkcije pa so še nosilnost, zvočna, požarna in toplotna zaščita, tesnost, hkrati pa nudijo tudi psihološko ugodje. V zgodovini so bile največ v uporabi stene iz zidakov in blokov, ki so povezani med seboj z malto. Prvo monolitno konstrukcijo predstavlja butana stena iz ilovice, pojav betona pa je število monolitnih sten bistveno razširil. Sredi 20. stol. je težnja po hitremu prilagajanju tlorisne zasnove zgradbe trenutnim potrebam in razvoj serijske proizvodnje pripeljal do izdelave tipskih predelnih sten z enotnimi moduli, ki so omogočali variacije različnih postavitev. Stene so postale lahke, enostavne za vgradnjo, pa tudi hitro demontažne. V zadnjih desetletjih so se predvsem sistemi neprosojnih predelnih sten racionalizirali do te mere, da so si postali zelo podobni. Izbira različnih oblog, ki je bila do nedavnega na voljo, se je skrčila na uporabo mavčno-kartonskih plošč. Unikatno oblikovanje in izdelava sta seveda iz te trditve izvzeti. Večji spekter izbire nudijo sistemi prosojnih predelnih sten s pestro izbiro stekel in površinskih obdelav.

V raziskovalni nalogi so podrobneje obdelane funkcije predelnih sten, njihova zvočna in protipožarna zaščita. Predelne stene so sistemizirane v pregledne sheme. Posamezni termini so obdelani v obliki glosarja.

doseženi cilji, namen in rezultati

V raziskovalni nalogi so obravnavane stenske konstrukcije znotraj zgradbe, katerih primarna funkcija je ločevanje prostorov, druge funkcije pa so še doprinos k statični stabilnosti objekta, zvočna, toplotna in požarna zaščita, zagotavljanje tesnosti med posameznimi enotami, izravnavanje vlage v prostoru in ustvarjanje psihološkega udobja v prostoru.

Predelne stene so uvodoma sistematsko razdeljene po različnih kriterijih (po konstrukciji, nosilnosti, funkciji in premičnosti). Vsak pojem je podrobneje obdelan v zadnjem poglavju Glosar. V srednjem delu naloge sta podrobneje predstavljeni področji zvočne in požarne zaščite predelnih sten. Namen naloge je sistemizirati predelne stene po različnih kriterijih in poiskati zanje relevantne premere iz prakse.

Rezultat raziskave bo služil kot pomožno gradivo pri predmetu Tehnologija gradnje in gradivo v arhitekturi.

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

Razvoj tehnologije gradnje je danes tudi pri predelnih stenah zelo hiter. Pojavljajo se številni novi sistemi, ki nadomeščajo klasične toge predelne stene. Te niso nudile možnosti po prilagajanju trenutnim potrebam, kar omogočajo današnje lahke in še zlasti premične predelne stene. Današnje tržišče ima na voljo številne sisteme. V okviru raziskovalne naloge smo ovrednotili njihove funkcije, poiskali relevantne primere zanje in opredelili glavne pojme, ki so potrebni za razumevanje in posledično izbiro pravega sistema v projektantski praksi..

ključne besede

predelne stene, funkcije predelnih sten, zvočna zaščita predelnih sten, požarna zaščita predelnih sten

summary

Partition walls in buildings separate spaces; their other functions are load-bearing capacity, noise-, fire- and heat insulation, water-tightness, but they simultaneously have to offer psychological comfort. Historically speaking the most often used walls were made of bricks or blocks, bonded together with mortar. The first monolithic structure was the compacted clay wall; with the introduction of cement the use of monolithic walls significantly proliferated. The tendency for quick adaptation of building layouts to pending needs and the development of serial production in the mid 20th century instigated the production of typified partition walls with uniform modules, which enabled variations in placement. Walls became light, simple for assembly, but also de-assembly. In the last decades mainly systems of non-translucent partition walls were rationalised to such an extent that they became very similar. The choice of various coatings, available until recently, has become limited to the use of plaster-cardboard plates. Unique design and production are of course exempt from this statement. A larger choice spectre is offered for translucent partition walls, where there is a varied offer of glass and surface treatments.

Functions, noise muffling capacity and fire safety of partition walls were researched in more detail. Partition walls are systemised into easily legible charts. A glossary with described terms was added.

intentions, goals and results

The research dealt with wall structures inside buildings whose primary function is separation of spaces, while their other functions contribute to the building's stability, noise, heat and fire insulation, ensuring water-tightness between particular units, equalising humidity in the space and providing psychological comfort.

Partition walls were first systematically divided according to various criteria (structure, load-bearing capacity, function and mobility). All the terms were dealt with in detail in the last chapter, the Glossary. The central part of the research gives a detailed account of noise and fire insulation of partition walls. The intent of the research was to systemise partition walls according to various criteria and find relevant illustrative examples from practise.

The result of the research will be used as additional material for the course Building technology and materials in architecture.

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

Today building technology is developing very fast, even of partition walls. Numerous new systems are emerging, which substitute classical rigid partition walls. The latter didn't offer possibilities for adapting to present needs, which are nevertheless catered to by modern light and especially mobile partition walls. The market today offers numerous systems. Within the research framework we evaluated their functions, found relevant illustrative examples and defined the main terms that are needed for understanding and consequential choice of the suitable system in architectural practise.

key words

partition walls, functions of partition walls, sound insulation, sound insulation of partition walls, fire protection of partition walls