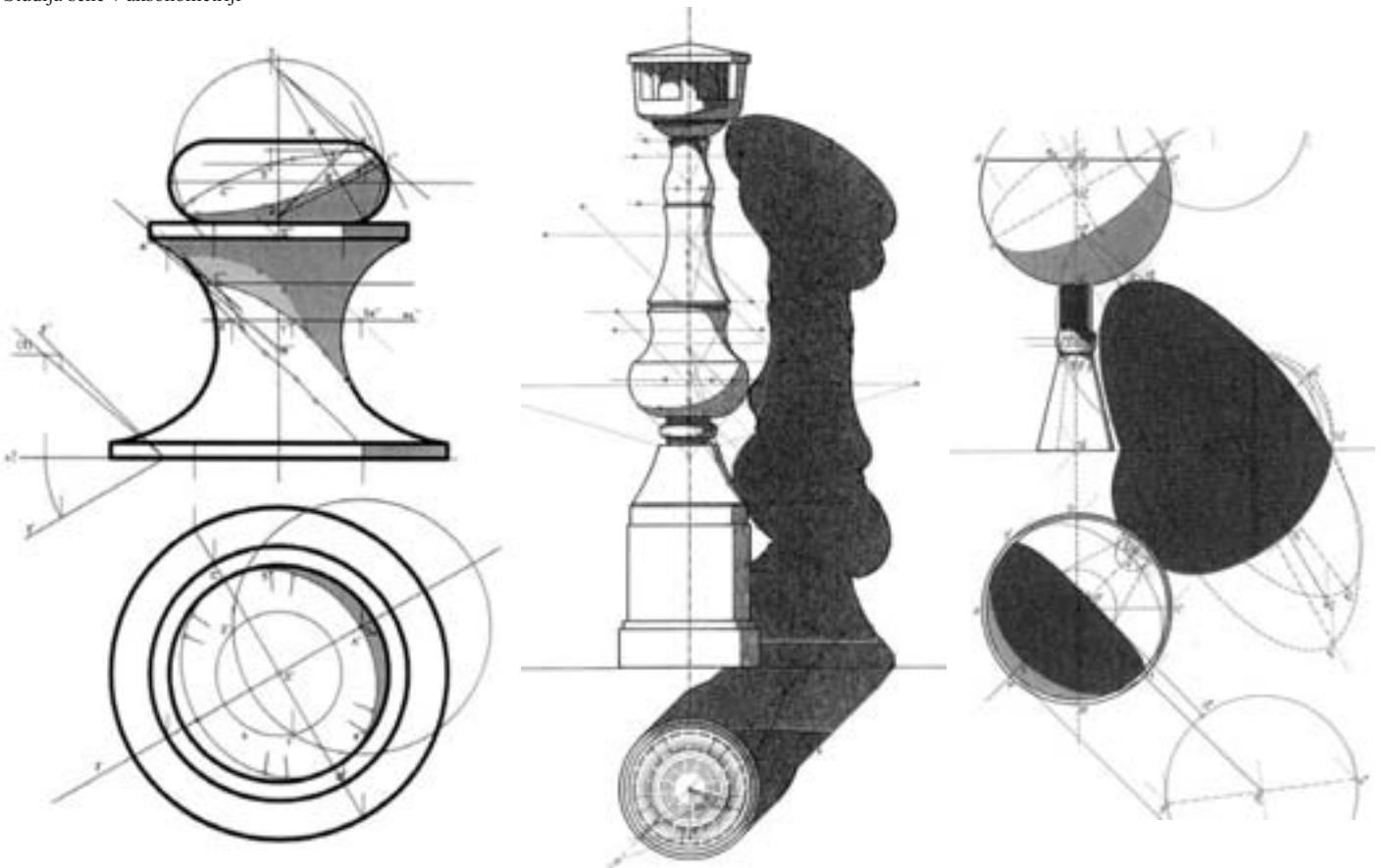


Študija senc v aksonometriji



Študije senc vrtenin v Mongeovi projekciji

(SENCE KOT SESTAVNI DEL ŠTUDIJA OPISNE GEOMETRIJE)
AN ARCHITECT'S GRAPHICS
SHADOWS AS AN INTEGRAL PART OF DESCRIPTIVE GEOMETRY
 raziskava, research

povzetek

Sence so fizikalen pojav, ki imajo zaradi poudarjanja tretje dimenzije morda celo večjo težo v arhitekturi ter likovni umetnosti, kot pa v fiziki. Risanje senc namreč predstavlja enega od načinov, kako trodimenzionalni prostor bolj jasno in razumljivo predstaviti na dvodimenzionalni medij.

Raziskava se je ukvarjala s problemom vloge senc v arhitekturi in v študiju opisne geometrije. Analiza načrtov, skic in perspektiv je pokazala, da so imele senco veliko vlogo v preteklosti, ko so jih tudi bolj množično in skrbno risali kot arhitekti preteklega stoletja. Vendar imajo svojo vrednost tudi sedaj, ko računalnik omogoča hitro, enostavno in natančno senčenje. Analiza risb študentov ter pogovori z njimi so pokazali, da imajo sence zaradi svoje lepote veliko vrednost pri seznanjanju z opisno geometrijo ter prispevajo k razvijanju prostorske predstave.

summary

Shadows are a physical phenomenon which due to its emphasis of the third dimension might have acquired more significance in architecture and fine arts than in physics. Shadow drawing thus represents one of the ways in which a three-dimensional space may be more clearly and comprehensively demonstrated on a two-dimensional medium.

The research focused on the role shadows play in architecture and the study of descriptive geometry. An analysis of plans, sketches and perspectives showed that shadows played a significant role in the past when they were drawn by architects more numerous and carefully than in the previous century. Nevertheless, shadows have preserved their value even in the computer era, with the computer allowing for fast, easy and precise shadowing. An analysis of students' drawings and interviews with them revealed that shadows with their captivating beauty were indeed valuable in an introduction to descriptive geometry and as such contributed to the development of space perception.

doseženi cilji, namen in rezultati

Raziskava je potrdila hipotezo o pomembnosti senc v arhitekturi. Analiza uporabljenih opisnogeometrijskih postopkov v študentskih vajah je pokazala učinkovitost senc kot metode za učenje opisne geometrije.

aims achieved, intentions and results

The research confirmed the hypothesis concerning the importance of shadows in architecture. The analysis of the procedures applied by the descriptive geometry during practice classes with undergraduates revealed that shadows are an effective method for the study of descriptive geometry.

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

Že bežen pregled risb arhitektov je pokazal, da je za boljšo predstavo zamišljenega objekta potrebna senca. Kljub temu pa marsikdo jemlje senco kot likovni element. Če pri tem ne gleda na njeno pravilnost, lahko naredi risbo zavajajočo. Po drugi strani pa je učenje senc dober motiv za izboljšanje prostorske predstave, ki je potrebna vsakemu arhitektu.

problematics, topic placement and significance in architecture

A mere glimpse at architects' drawings showed that shadows improve the capability of envisaging the image of an object. Yet, there are many who believe that the shadow is merely a fine-art element. Such a belief may cause disregard for its regularity and may result in deceiving drawings. The study of shadows may therefore improve space perception, a sine qua non for any architect.

ključne besede

arhitektura, opisna geometrija, sence

key words

architecture, descriptive geometry, shadows