Architectural Engineering Technology

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I d c i

Ideas mature, but interestingly enough, they never get old! It is also notable, how are they born. In my case, two elements brought them forward: one question, and an admirably unique surrounding. Let me begin with the latter one. In the beginning of my so-called mid-career, I had the great opportunity, to live, practice and teach in Africa! For almost four years, we lived in Zaria, an ancient Nigerian town, with a modern university outside its medieval walls. It is impossible to list all the enlightening in uences one encounters in a strange, yet deep rooted culture! Worthy of at least another article, the muslim socio-religious ideas, the abundance of the reddish laterite-mud, and the inherent human ability to build, produced an incredibly homogeneous physical and ideological environment. Addressing here only the physical one, it was almost dream-like uniformity between the ground, the walls and roofs of the self-built villages! So no wonder, when in the process of designing a modern, but traditional house to the city of Ife, another old town, to the question, what is the condition of spatial continuity, the subconsciously preprogrammed answer was: surface continuity! is obvious recognition of an element, visually dominantly present everywhere, fermented further meditations on that subject and the idea of the "Spaceprint" was born.

Returning to the subject of this article, Phenomenology comes from the Greek '*phainomenon*'=that which appears, and '*logos*'=study. "(It) is the philosophical study of the structures of experience and consciousness" – according to Wikipedia.

We will stop here, and I will explain the willful marriage, what I forced 'topology' and 'phenomenology' into. Jean Piaget, the late Swiss philosopher and clinical psychiatrist, a er hundreds of actual tests with children of very young age, in his book: *e Child's Perception of Space*, made the statement, that our psyche, our consciousness, is organized by topological principles. Also, Maurice Merleu Ponty, one of the father of phenomenology, wrote this in his book, "

- e interface of these domains is named "Spaceprint", it simultaneously describes the localized shapes of both space and non-space. - e condition of spatial continuity is surface continuity (Figure 2).

- Common behavior in the practice of architecture, that we are talking about space, yet non-space is drawn (Figures 3 and 4).

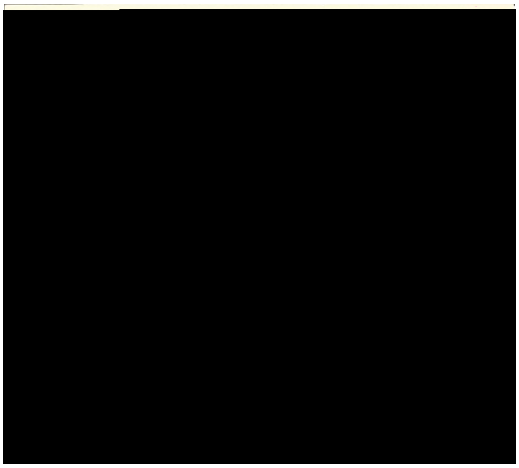

Figure 1: Spaceprints.

Figure 2: Spaceprints.

Figure 3: Spaceprints.

Figure 4: Spaceprints.

Figure 5: Spaceprints.

Figure 6: Spaceprints.

- "Particular Spaceprints" could describe the shapes of an object and as well as of space.

-Intentionally or unintentionally, these spaceprints are imagined in architectural design, and materialized in building construction.

- In construction, one distinguishes surface providers and surface holders.

-Traditional materials are bifunctional, while new structures show distinct separation of these two functions (Figures 5-8).

-"Spaceprint Fragments" describe surface strategies; changes in the surface usually denote changes in the structures and/or materials (Figures 9 and 10).

Citation: Magyar P

building. ese characteristics enable this process, to be applied for the establishment of spatial typologies (Figures 14-16).

e following drawings are but the rst batch of a collection of Simpli ed General

S ace i , a d Ge e a S ace i ,

ey are the intermediary elements, through which my investigation method relates to the subject of this particular issue of *OZ*: complexity.

e visual boundaries – internal or external – allow us to perceive

Figure 14: General Spaceprint of the same.

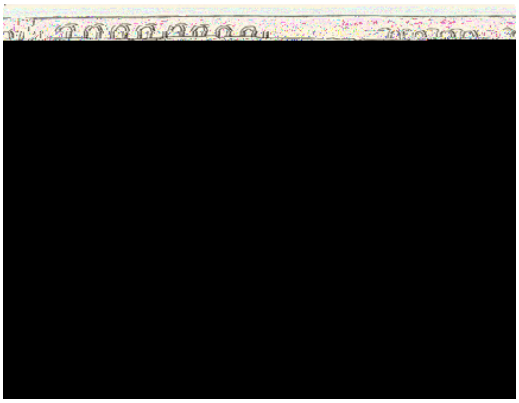

Figure 15: SGSP of a residence.

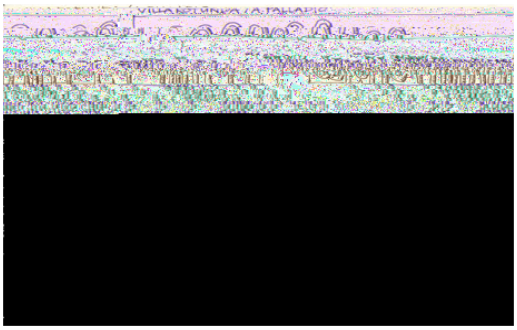

Figure 16: General Space print of the same.

Figure 17: SGSP of a residence.

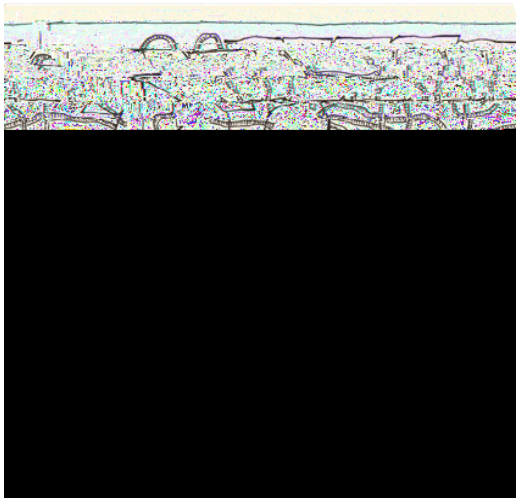

Figure 18: General Spaceprint of the same.

only partial relationships of spatial connectivity! ey graciously reduce complexity to visually easily digestible sights. Simplicity is still a governing principle, when the shaping of individual spaces, or even the external appearance of a building is concerned (Figures 16-18).

However, under this seemingly simple space-perceptions, the incredible complex spatial structure is hidden, and so far, the Spaceprint method might be the only one, which is able to reveal the complex system of spatial loops, which are present even in a seemingly simple building. e following drawings are excerpts from the works of some of the students in my "Spaceprint Seminar", when they had to map out their respective residencies, in both of the Simpli ed General Spaceprint, or in the General Spaceprint forms. As a nal test of their analytical abilities, based on my SGSP drawing, they had to visualize and draw the General Spaceprint of Antonio Palladio's well-known Villa La Rotonda. is centrally symmetrical building was chosen due to its

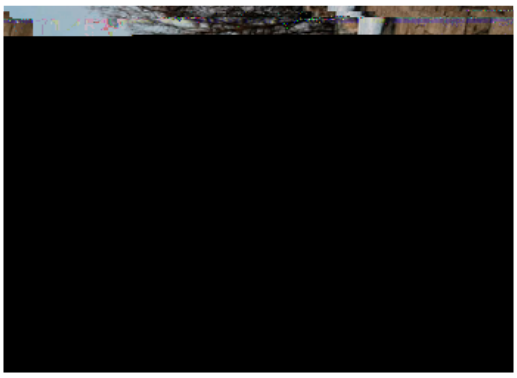

Figure 19: SGSP of Palladio's Rotonda.

seemingly simple and repetitious spatial system, only to be surprised by the inherent complexity of the spatial structure. If at the earlier shown examples one didn't recognize the obvious visual symbolism between these General Spaceprints, now it is inevitable to not to see them as