Patio as a structural invariant
Buildings with patio and adaptive reuse in Barcelona

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ABSTRACT

Certain architectural structures have the ability to persist over time when a building undergoes a change of use. This is the case of patios, according to the conclusions of a study focused on the reused buildings of Barcelona recently developed by our research group [1]. The survey of this architectural element should enable us to better understand the behaviour of these buildings.

If we define the open-air inner court of a building as a patio, this study is especially interested in those who have the capacity to organize spaces, systematize circulations — along with stairs and corridors — and configure the building as a whole. This set of *structuring patios* particularly applies in a dense city like Barcelona because their position and size also provide liveability to interior rooms. In light of these qualities, such patios can be regarded as an essential piece of both the formal and the bearing structure of a building.

The location and attributes of these patios can be associated with the potential for adaptive reuse: they can help achieve a lower impact on the architectural and formal structure of a renovated building, when used appropriately. Hence the patio can be seen as an indicator of how a new programme adapts to the existing support. 171 out of 565 buildings documented and analysed in Barcelona — a thirty percent of the overall — have at least one patio of a kind whose characteristics have outlived one or more renovation processes. The percentage rises to 50% in Ciutat Vella and Eixample districts, where density and architectural typology make them particularly relevant.

Buildings with patios match different uses and periods from the 11th to the 20th century. In spite of the expected differences, the studio draws conclusions on the understanding of material transformations and changes of use they have undergone and proposes policy measures for new scenarios, now that the number of renewal operations is the largest to date and some patios risk disappearing.

In short, with regard to buildings included in this category — without any noticeable difference between heritage and common ones — this paper helps verify the hypothesis that the very existence of a patio is responsible for the persistence of the internal arrangement and structure and must be carefully considered in future interventions when addressed to extend the life-cycle of a building.

Keywords: patios, structuring patios, architectural renewal, adaptive reuse, life-cycle, Barcelona

REFERENCES

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