



**Politecnico  
di Torino**

# **Honors Thesis**

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**Master's Degree Architecture for Sustainability.**

**Abstract**

**Discrete Blockbau Architecture**

**Tutor/Correlator**

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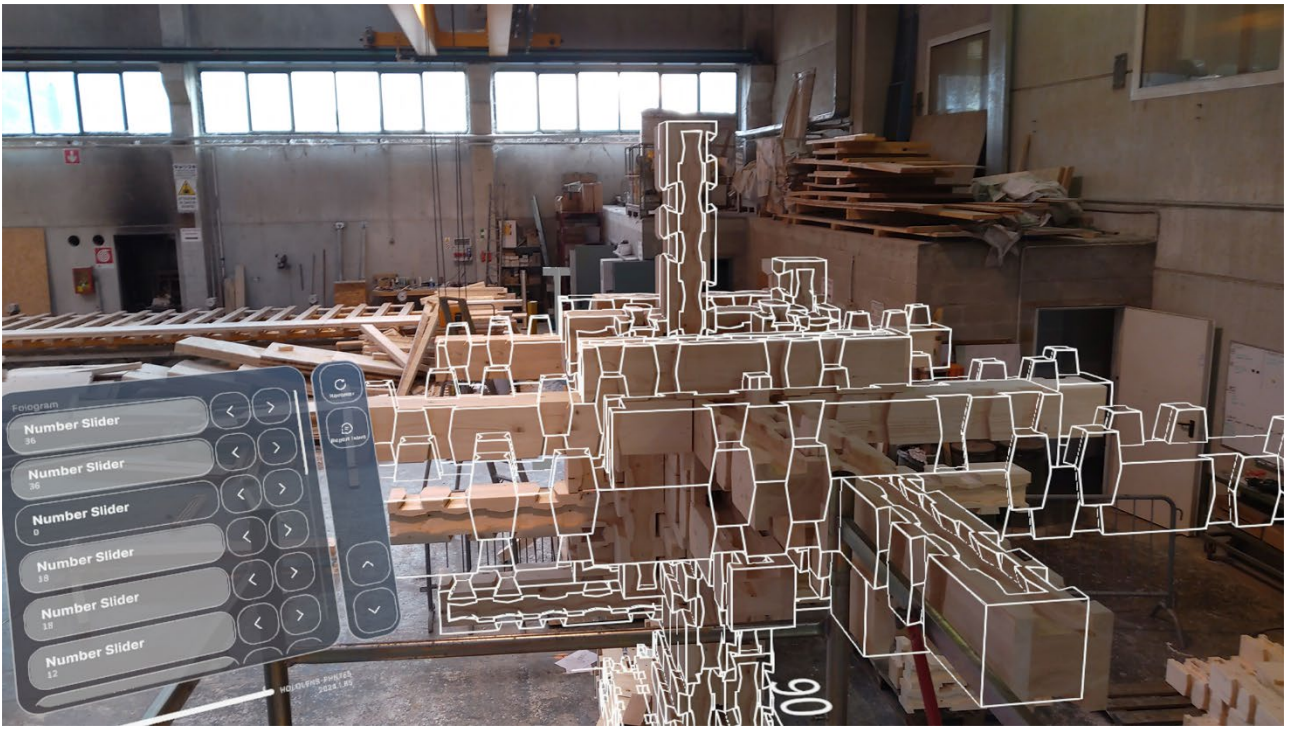
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"We must consider the art of wood construction as the mother of architectural design, such an approach can bear fruit even beyond this material" (Hermann Phleps, 1942)

Blockbau architecture is perhaps the first archetypal building methodology that embodies the principles of architecture for reuse and somewhat anticipates the concepts of discrete architecture. This is because inherent in its essence is the quality of discerning, particularizing and discretizing space according to simple volumetric units, i.e., exactly the field of research that discrete architecture is interested in. The latter is at the same time not to be confused with the sphere of modular architecture, for which the principle of component functionality still applies, where beam equals horizontality and pillar equals verticality. The use, on the other hand, in discrete architecture of universal components-known as digital materials-would potentially lead to the emergence of what could be called a true architecture for reuse; in fact, to date, multiple building systems have been presented under this designation for the sole merit of using deconstructible dry construction systems. But as designers of today, with what arrogance, we should ask ourselves, do we arrogate to ourselves the right to decide which component is to be custom manufactured for our specific project? How can we be disinterested in how these components produced for us ad-hoc -- clearly following our most detailed needs in terms of size, section and shape -- should potentially be reused in a new and different architecture in the future? The superficial equation of "deconstructible architecture = architecture for reuse" in today's circular economy context can no longer be a solution: just as the architect of today has the privilege of being able to choose the expressive freedom of his or her work, so too must the architect of tomorrow - who reuses the components of the former - have it. In this context of academic research, the idea of LokAlp was born, the discrete building system that proposes to translate the knowledge of the blockbau architectural tradition according to the new terms of digital fabrication and computational design.





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