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Digital Architecture. Atmospheres in Design and New Responsive & Sensitive Configurations

Session 5 – Introduction

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Since the 1960s, the digital shift in architecture has shaped the evolution of the discipline, both in terms of academic research and operational practice. Preliminary explorations on the generation of forms was followed by the issue of performative design and the control of atmospheres, then the renewal of design methods using parametric modeling tools.

Since the 90s, material embodiment, manufacturing tools, and interactive technologies constitute new theoretical, methodological and aesthetic horizons for architecture. Notions of non-standard architecture, the design-manufacturing continuum (from file to factory, from design to production) or even the renewed interest in ornamentation, directly question the ambiances ; those of design situations, on one hand, and the situated experiences of contemporary architecture, on the other hand.

Are there unique atmospheres likely to characterize the digital architecture of the 21st century, whether we focus on the terms of design, manufacture or perception of these "new" ambient environments ?

- How has the transition from digital virtuality to the of (physical) prototypes transformed the activity of designing architecture and / or atmospheres ?
- How does the possibility of embodying design objects, also known as the design-manufacturing continuum, have the effect of refocusing the project activity on the perceptual quality and the sensitive interactions of the designer with the artefacts produced ?
- How does the renewal of design practices induce new ecosystems of actors, enabled the development of new "workshops" of design-production and generated new "working atmospheres," within schools of architecture, research laboratories or in operational practice?
- Is it possible to single out, through the joint reintroduction of technique and materiality in the field of architecture, a "phylum machinique" specific to the digital era, whose expression features question the atmospheres, in terms of variation, configuration or renewed aestheticism of our built and perceived environments ? Are there arrangements and / or devices specific to digital architecture?

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- How does the development of a non-standard architecture, which we will associate with the possibility of the serial production of differentiated components, allow us to think of an architecture that is more attentive to users (mass customization) and the environment (energetic performance)? Can the digital turn of the architectural discipline be understood as the renewal of a socio-ecology of atmospheres to be designed ?