

# AUGMENTED COLUMNS

A critical interrogation of the relationship between the actual,  
the virtual and the real



Figure 1: Closeup of the Digital Hypostyle as shown at [REDACTED]

*Augmented Columns* presents itself as an occasion to critically interrogate the opportunities that Augmented Reality present for a disciplinary question in architecture<sup>1</sup>. The problem was observed through different lenses of observation, reaching from aspects of the augmentation of spatial

experiences through articulation and ornamentation, to aspects of AR<sup>2</sup> as an aid in advanced construction methodologies. Special attentions was given to the fact that these techniques seamlessly fuse aspects of symbolic culture with considerations of materialism. Augmented Reality per se is defined by the application of symbolic gestures as interface between the material and the symbolic realm of computational environments – just think of the techniques of pinching, waving and gazing in the use of Augmented Reality devices such as the Hololens. In a sense, Augmented Reality applications (fig.2) propose a synthetic ecology that is primarily defined by their inherent properties, such as simulation, enhancement and intelligence gathering, overlapping two levels of information, which operate between physical environments, and computationally driven information.



*Figure 2: Student comparing the toolpath printed by the robot with an overlaid virtual model of the toolpath.*

*Augmented Columns* is profoundly embedded in speculative territories. Moments of uncertainty collide with aspects of precision and control. Individual sensibilities are expressed in the individual projects, albeit riffing on the morphologies of articulated aesthetics such as the formal vocabularies of Baroque and Rococo (fig.3). The result is not an imitation of the former but rather a contemporary interpretation. The foundation can be discerned in the possibility to overlap various

experience levels, which allows mining for potentialities in contemporary ornamentations<sup>3</sup>. In this extent, *Augmentations of the Real* can be considered part of the discussion on PostDigital discourse in Architecture. An era in which computational tools are part of normal reality and other aspects of Digital Design are positioned center stage. Not the toolsets become the main actors, but the cultural agency produced by the toolsets.

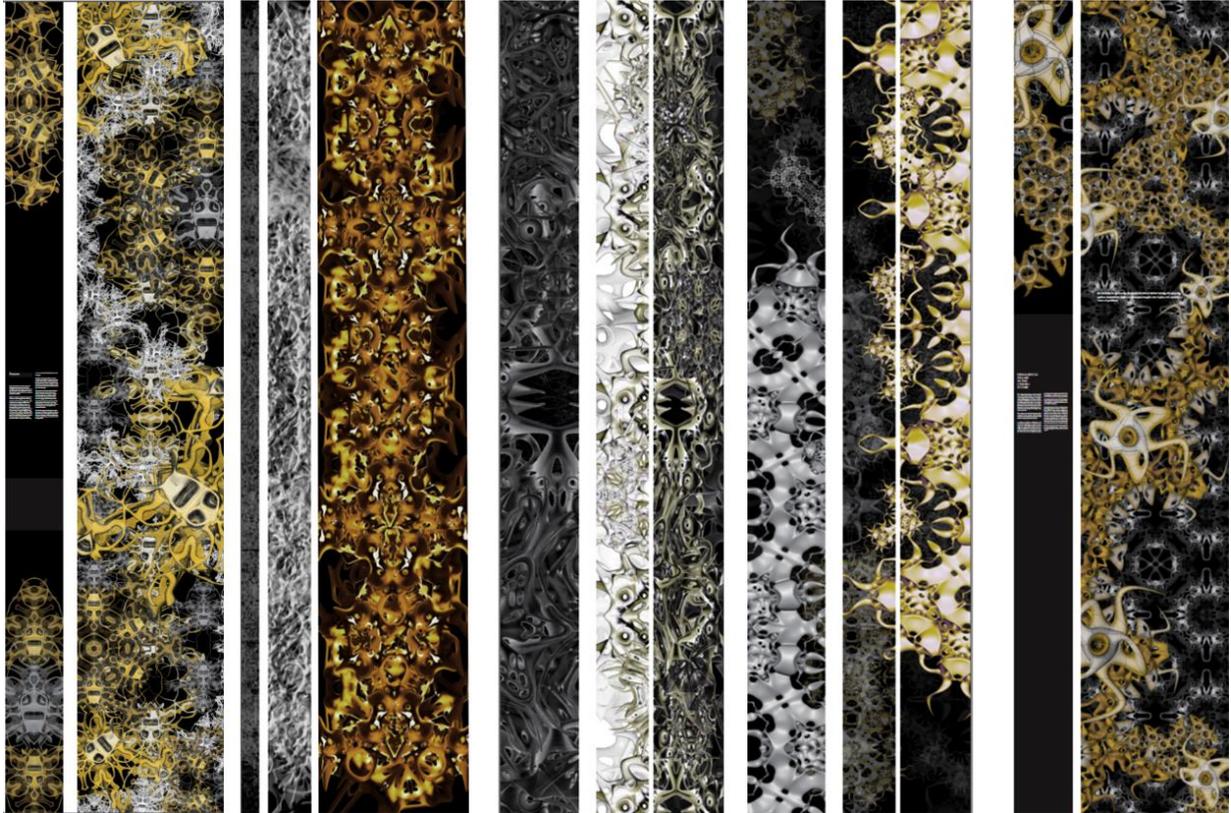


Figure 3: Series of patterns utilized as triggers for the AR application. The application could be used with conventional tablets and mobile phones.

For this to be explored a testbed is necessary.

The testbed for the examinations executed in *Augmentations of the Real* was found in the archetype of the column. As much as the column is a technical object it is simultaneously a mean of cultural expression, able to inform in an instant about the period of its construction. Ornamented columns have a long tradition as freestanding stela, specifically designed as memento, marker and memorial. The application of AR is able to extend the narrative qualities of the archetype of the column.

The combination between one real concrete column, three ornamented columns and eighteen virtual columns produce a forest of columns, a weird hypostyle hall, oscillating between the actual, the real and the virtual.

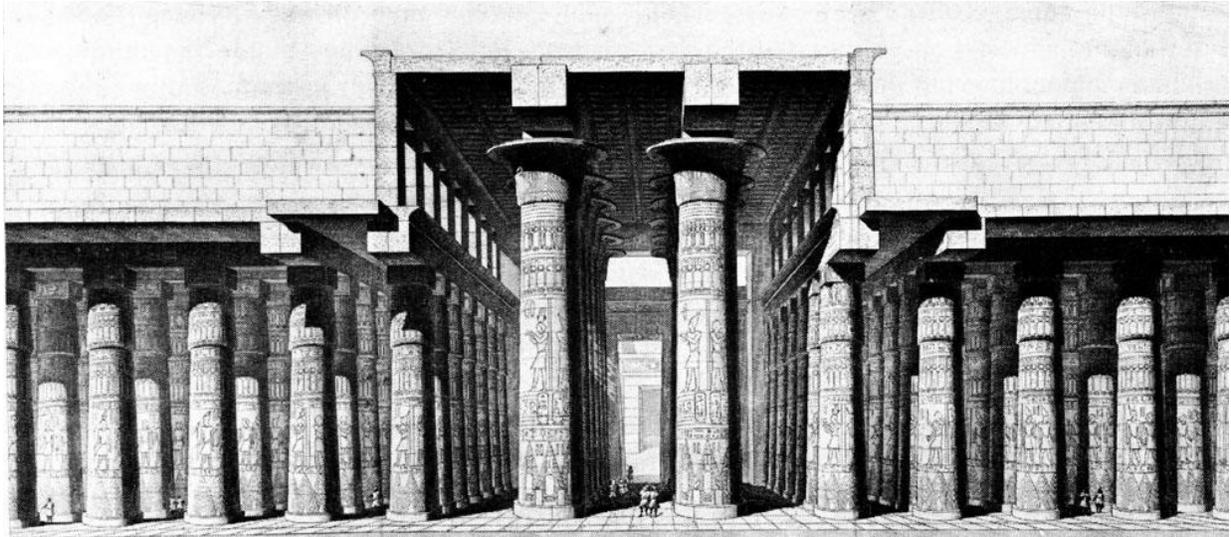


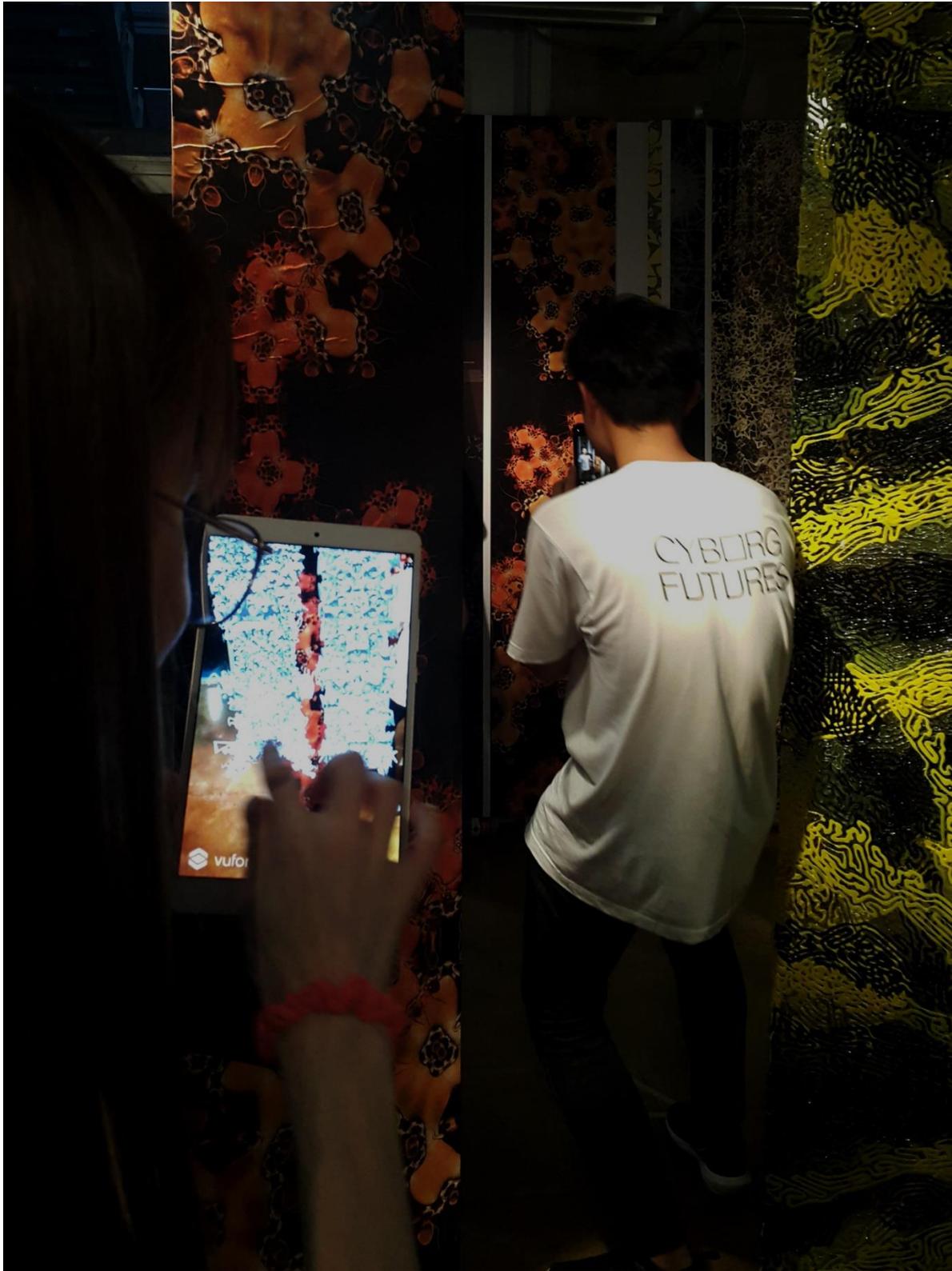
Figure 4: Great Hypostyle Hall, Karnak temple complex, Precinct of Amon-Re, 19<sup>th</sup> Dynasty (ca. 1290 – 1224 BC)



Figure 5: Augmentations of the Real, Hypostyle installation,



Figure 6: Final installation at [REDACTED]



*Figure 7: The virtual columns becomes visible as part of the installation through an AR app. The application is triggered through the pattern on the physical columns*



Figure 8: Production of the Salamander Column

1: See also: The Materialism of ARCHITECTURAL AUTOMATIONS - A critical Interrogation of Automation, Accelerationism and Ornament. 

2: AR, Augmented Reality. An enhanced version of reality created by the use of technology to overlay digital information on an image of something being viewed through a device (such as a smartphone camera); also: the technology used to create augmented reality. Merriam Webster Dictionary, retrieved on July 6th 2018 <https://www.merriam-webster.com/dictionary/augmented%20reality>

3: Le Corbusier once described Adolf Loos's *Streitschrift Ornament and Crime* as a Homeric cleansing. The lecture, first held in the Sophiensaele in Vienna in 1911 castigated the ornament as a "waste of the lifetime of the workers". It can be argued however that this argument has no validity any more as a whole family of computer-controlled machines primarily executes the production of articulation. On the contrary, in the wake of the words full automation it could be argued that the return of ornamentation could provide for jobs, which would otherwise disappear entirely. On a further note, it has to be said that Loos's Argument is entirely engrained in the sentiments of his lifetime, with its respective cultural, economic and political ideas – with no value whatsoever for our contemporary age in which we rather need to look into changing our relationship to work at large.