

# AWARD OF DISTINCTION



Project Title

**Scripting Concrete**

Student Name  
Level  
Course  
Advisor/Instructor

**Lorriane Ong**  
**Second Year, Graduated**  
**Advanced Architectural Design**  
**Athananssios Economou**  
**and Nader Tehrani**

Principal Investigator  
Department/School

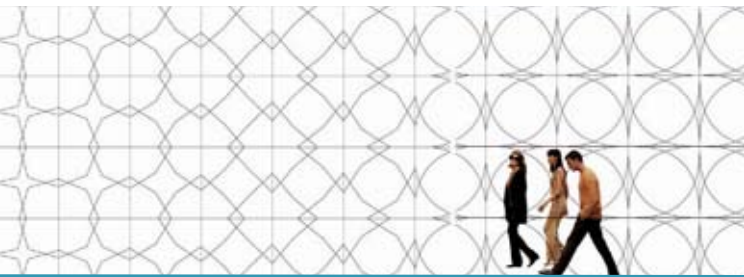
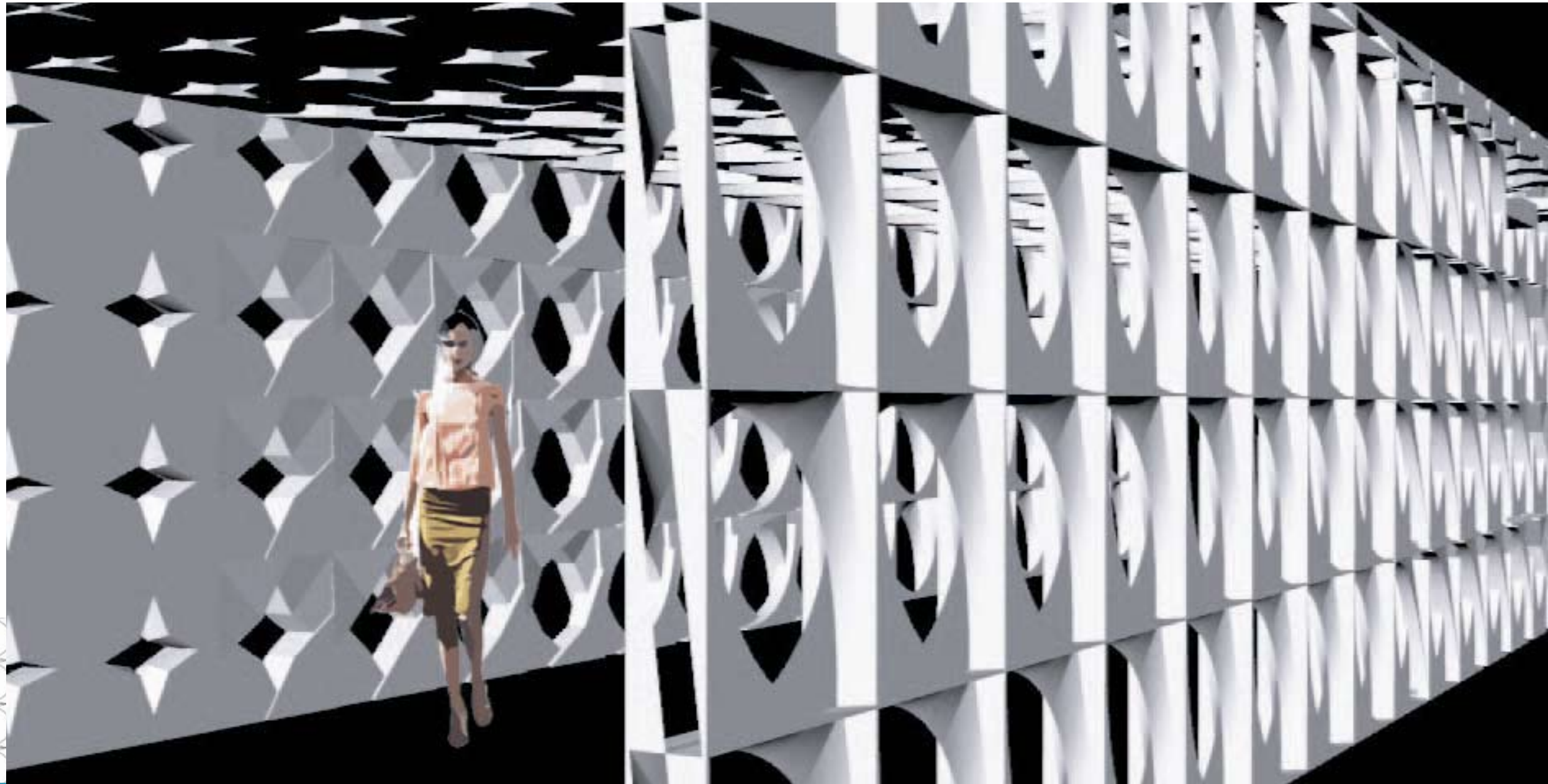
**Athananssios Economou**  
**Architecture Department,**  
**Georgia Institute of Technology,**  
**Atlanta, Georgia**

## SUMMARY DESCRIPTION OF PROJECT:

A study on the geometric evolution of a concrete wall into a panel with one opening.

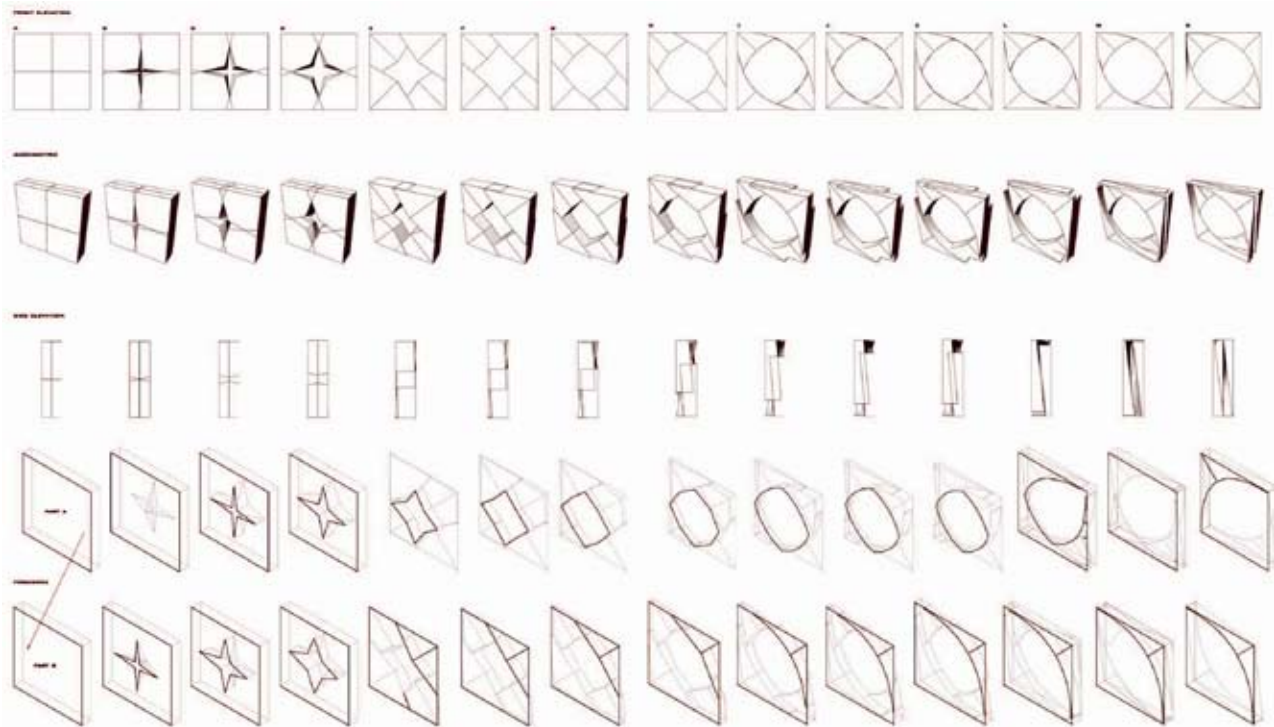
The study shows a particular strategy: an opening starting from the center of a rectangular module to gradually become a space between four curved corner pieces.

The process starts out by creating a script in form•Z to map the gradual procession from void to solid and the other way around. The script is then reinterpreted in a 3-D environment to generate variations on the z-axis. The end form is a gradual decomposition of the solid wall in all three axes. The set of instructions are finally used to generate a two-dimensional negative imprint - a modular formwork - that is used to cast the panels out of concrete.



Scripting Concrete by Lorriane Ong

**Fabrication** Design



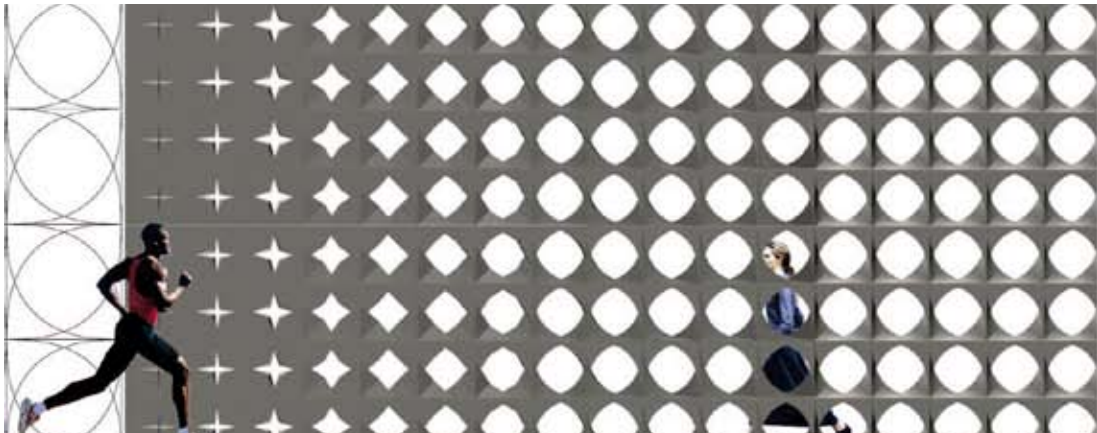
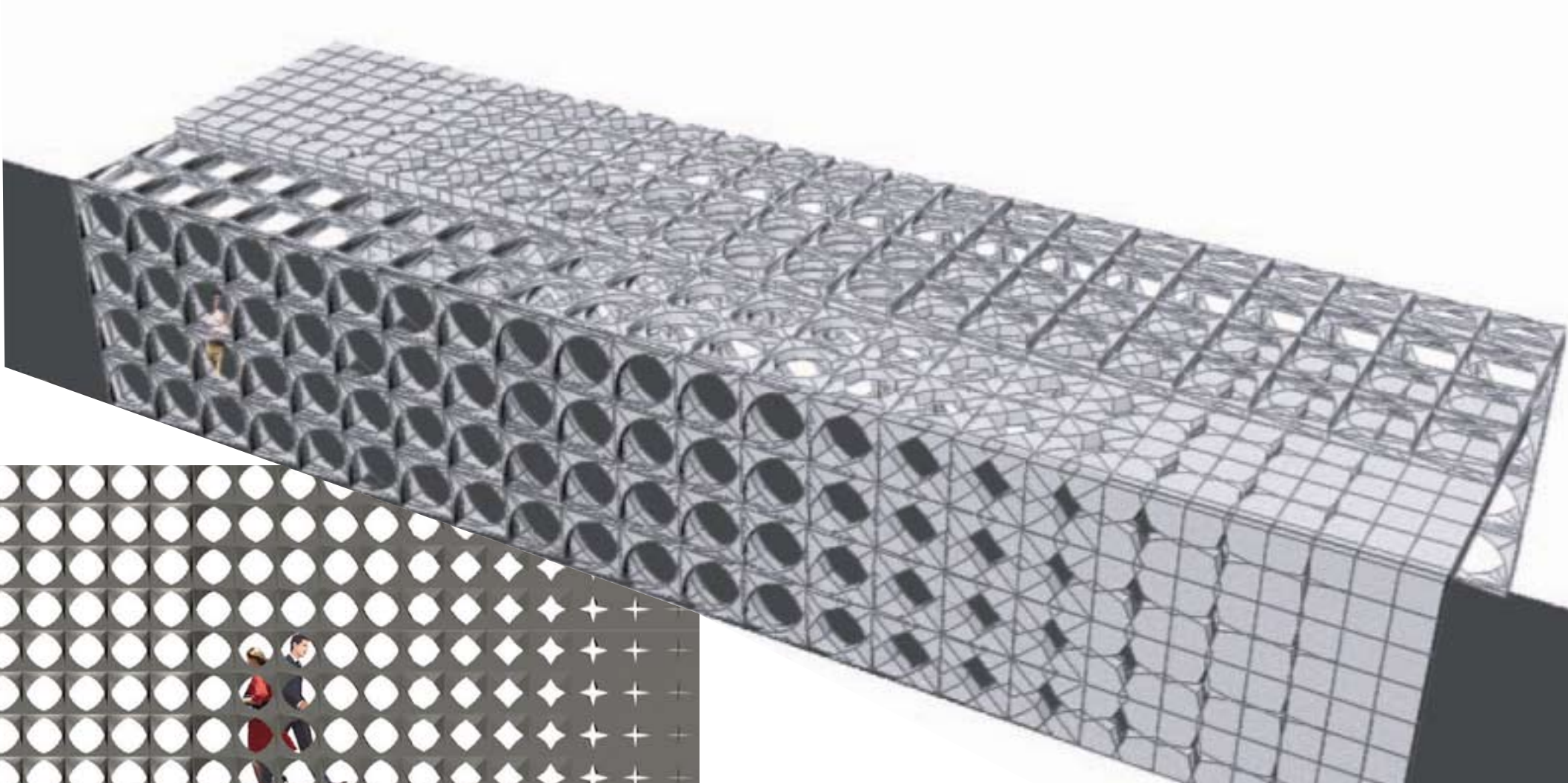
**REASONS FOR THE NOMINATION:**

The major reason is that the student masterfully and exemplary engaged computation at all levels in the creative design process; the design produced is entirely based on scripting conditions and is generated automatically by the form•Z; the design could not have been visualized or represented in terms of traditional means of representation, digital or analog. It was the algorithmic encoding of form that permitted the gradual unfolding of the pattern and the precision of the representation. Two additional interesting aspects of the project were: a) the script was used to generate the formwork rather than the form and in doing so investigated one more condition in the loop between composition and construction, and b) the script was used at various scales to investigate aspects of the scalar properties of the design.

**JURY COMMENTS:**

An algorithmic approach was the right choice in this project. It clearly indicates how a masterful manipulation of a few parameters can create a poetic cellular form. This project reminded me of the Arab Institute by Jean Nouvel. – **Wassim Jabi**

I simply just loved the visual created with this concrete wall form. This morphing of solid shapes through the use of a form•Z script or any other modeling means to establish the overall fabrication is very impressive. The architect used supplemental views to communicate and explore the created 3-D patterns clearly. – **Dennis Andes**



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**Fabrication** Design