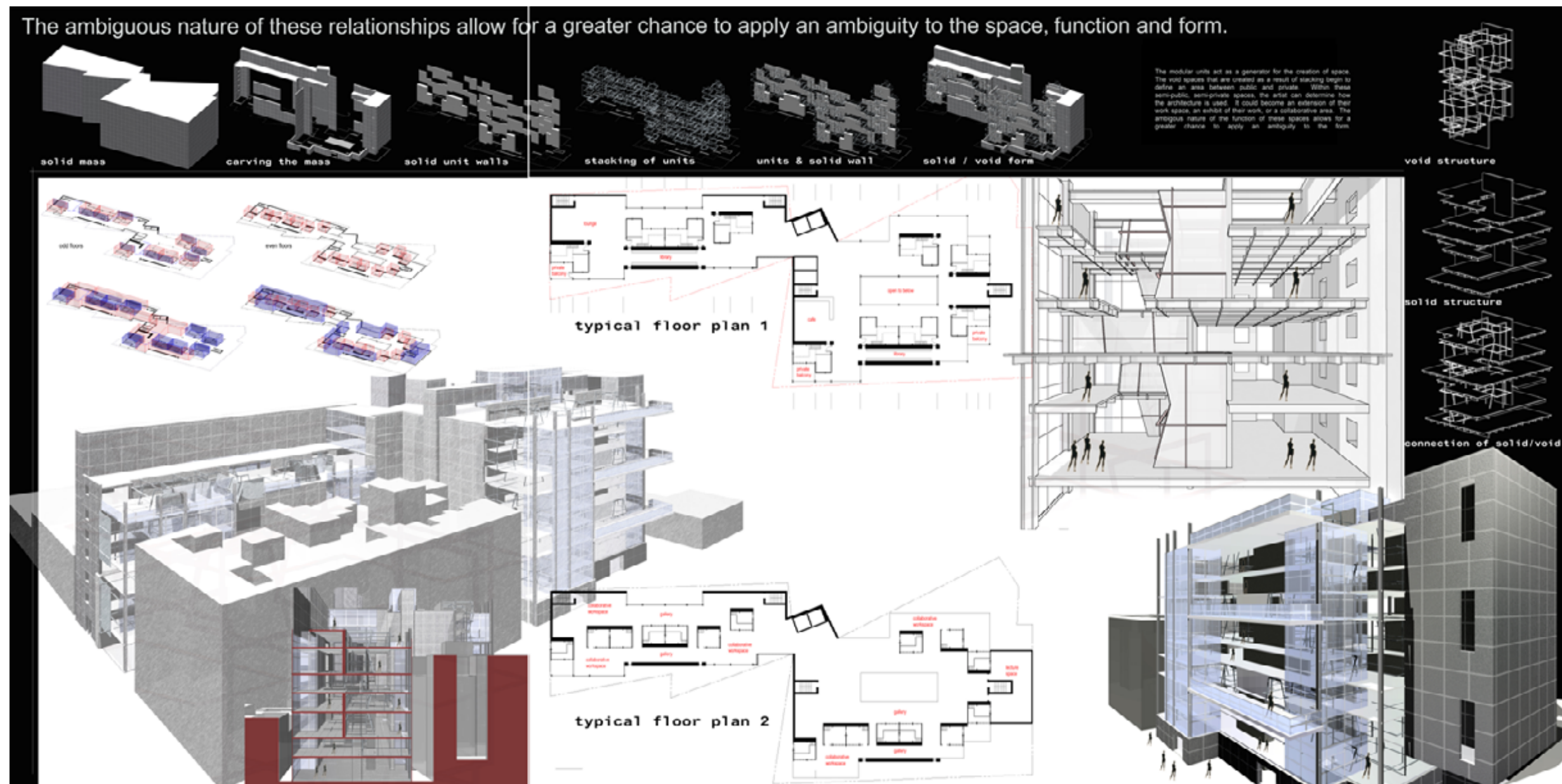Project Title: **Verticality: 100 work/live studios in a city**

Student name: **Don Rushton**
Level: **Fourth Year**
Course: **Architecture Design**
Advisor/Instructor: **Vera Parlac**
Principal Investigator: **C. William Fox**
Department/School: **Architecture Program, Tyler School of Art, Temple University, Philadelphia, Pennsylvania**
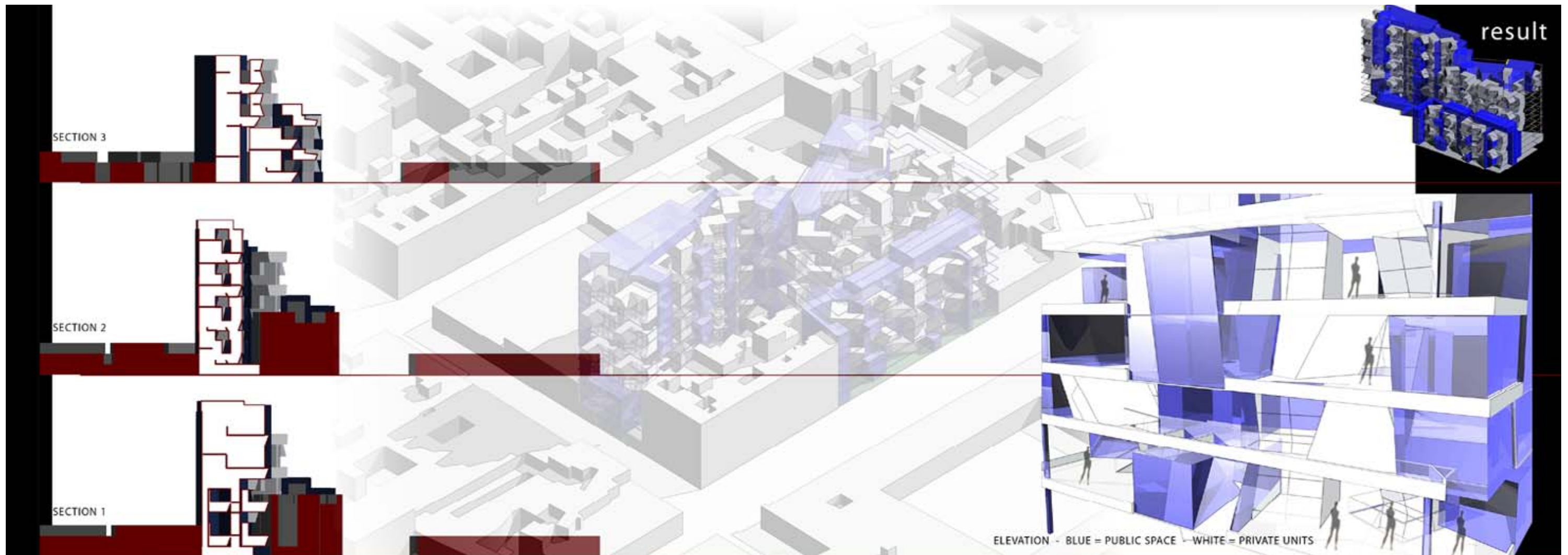
Summary description of project:

In this studio we explored the idea of verticality in architecture. The focus of our study was transformation of the skyscraper as a vertical structure in order to open up possibilities to view the vertical structure as more than just the stacking of plates, repetition, and extrusion of the ground plane.

Studio project had two phases. The first phase was a schematic proposal with the emphasis on a development of the students idea of verticality. The emphasis of the second phase was on materials, structure, assembly of components, and their influence on architectural expression.

The context for this exploration was a design competition for a site in the center of a big city, a block of 2,000 m2. The program called for a design of 100 work/live studios measuring 100 cubic meters each, a pedestrian landscape with cultural and commercial spaces, an exhibition gallery/ concert hall, a wellness center/ gymnasium and a common internet cafe area.

The ambiguous nature of these relationships allow for a greater chance to apply an ambiguity to the space, function and form.

solid mass — carving the mass — solid unit walls — stacking of units — units & solid wall — solid / void form — void structure

solid structure — connection of solid/void

typical floor plan 1

typical floor plan 2

SECTION 3

SECTION 2

SECTION 1

result

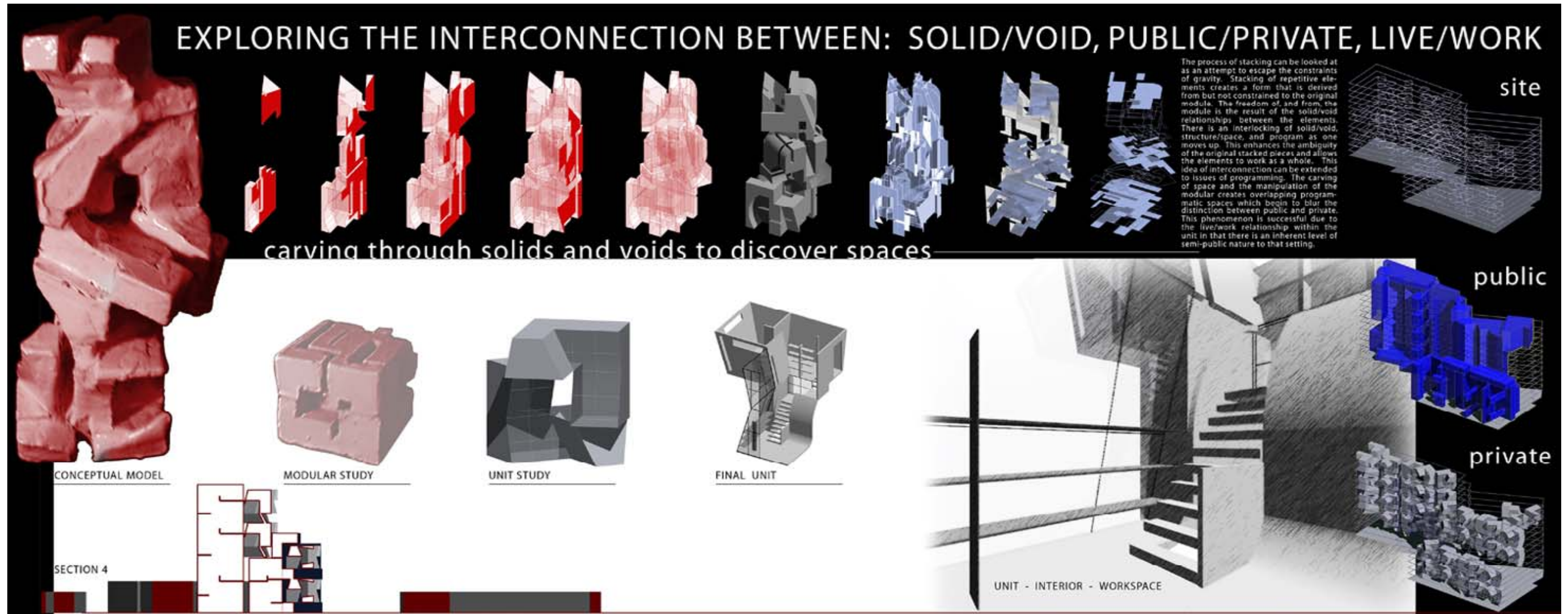ELEVATION - BLUE = PUBLIC SPACE - WHITE = PRIVATE UNITS

Reasons for the nomination:

In the first phase of the project the student used **form•Z** to explore the ideas of verticality through stacking and subtracting. He used the single element (the unit) and its variations to generate an intricate and complex construct. The software was used not only to represent these ideas but to actively inform the design process. It enabled the student to explore various possibilities before discovering and articulating the solution that satisfied his programmatic and conceptual agenda. Latter in the project development the student was able to employ the software in his exploration of the structure and assembly of components. He was able to test various solutions with the great agility. This project demonstrates a successful and effective use of the software during different phases of the project development.

Architectural Design | *Verticality* by Don Rushton

What interests me about this project is the way **form•Z** is used to explore design possibili-ties. These explorations concerning stacking, interpenetration and interlocking of units show an inventiveness in design method using the opportunities provided by the software that are to be commended. Also impressive is that this three-dimensional exploration ranges in scale from the individual unit to complex stacking arrangements for aggregations of units in the final building.

● Thomas Seebohm

EXPLORING THE INTERCONNECTION BETWEEN: SOLID/VOID, PUBLIC/PRIVATE, LIVE/WORK

The process of stacking can be looked at as an attempt to escape the constraints of gravity. Stacking of repetitive elements creates a form that is derived from but not constrained to the original module. The freedom of, and from, the module is the result of the solid/void relationships between the elements. There is an interlocking of solid/void, structure/space, and program as one moves up. This enhances the ambiguity of the original stacked pieces and allows the elements to work as a whole. This idea of interconnection can be extended to issues of programming. The carving of space and the manipulation of the modular creates overlapping program-matic spaces which begin to blur the distinction between public and private. This phenomenon is successful due to the live/work relationship within the unit in that there is an inherent level of semi-public nature to that setting.

site

public

private

carving through solids and voids to discover spaces

CONCEPTUAL MODEL

MODULAR STUDY

UNIT STUDY

FINAL UNIT

SECTION 4

UNIT - INTERIOR - WORKSPACE

This project is a superb example of how modeling soft-ware such as **form•Z** can be applied throughout design process. The student puts the software to excellent ef-fect not only for final design visualization but also in early conceptual phases. In addition, the ability to quickly model and assess various design options proves key to the suc-cess of the project. By departing from the usual sky-scraper model—stacked iterations of the same floor lay-out—the student opens up a tremendous range of pos-sible arrangements of the required living and public spaces. A fine example of how the efficiencies gained through use of modeling software can free the designer to focus more on innovation and creativity.

● Sara Ferris