

# GRIFFINK.MORRIS design portfolio

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#### 1:4

APPROACH FROM A SIDE STREET; VERY NARROW AND TALL.

#### 1:2

APPROACH FROM A MAIN STREET; COMFORTABLY HIDE, STILL TALL.



#### FIRENZE PIAZZA: ANALOGOUS SQUARE

The anlagous square assignment was to analyze an existing piazza in Florence, Italy, and to redesign it. Sketches and diagrams were used to study Piazza Santa Trinita. Proportions of different entries and exits were analyzed. The different conditions of views down the paths to the piazza were found to fall into one of three categories: Open, Fold, and Pinch. Open views connect the piazza to other open spaces, such as the river or other piazzas. The Fold condition occurs when the road turns at a distance, "folding" over the end of the view.

The Pinch condition is similar to the fold, but differs in two important

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ways: the proximity to the piazza, and the degree of curvature. Folding occurs when the lines are straight; Pinching occurs with curved lines. Opening can occur with either straight or curved lines.

CONDITION FOUND IN PLAZZA GIVES BALANCE/ PROPORTION TO THE PLAZZA. IT IS SQUARE IN SECTION WHILE TRIANGULAR IN PLAN. END OF PLAZZA GETS "SQUEEZED."



#### **SKETCHES AND ANALYSIS**



#### **SKETCHES AND ANALYSIS**



#### **PILLAR STUDY**

Piazza Santa Trinita is characterized by a pillar at the center of it. To recreate the pillar without copying it, the idea of "monument" was analyzed.

A monument was found to symbolize power, ability, and skill. The Montjuic Communications Tower, by Santiago Calatrava, was analyzed as a precedent study. It used the idea of balance and human form. The analagous pillar in the new square is a suspended prism, recalling the principles of the monument as well as incorporating Calatrava's idea of balance.

One of the sketches for a new pillar was shaped like a lambda, the symbol for frequency. This, in turn, inspired the program for the analagous square: a music school, performing area, and an instrument crafting building. The school is the northeast building with a large courtyard, and also extends into the west building. The west building houses the performing area, and a workshop for making instruments is in the south end of it. The south building is where a student can buy and rent instruments, as well as learn to make an instrument.

















#### EAT.SUGAR.SHOP.LIVE

EAT.SUGAR.SHOP.LIVE is a mixed-use development project for the Integrated Design Competition. Sited on the waterfront in Baltimore, the design includes retail. residential. office, entertainment, and parking. The competition focused on the ability of the designers to integrate solutions for the various architectural issues. One issue was structural: the project was construction. limited to concrete Another issue was the environmental aspect: the project was to limit energy use and minimize its carbon footprint.

Massing studies allowed the project to have pleasant proportions and allowed for ample natural lighting. Shading studies ensured that the heat gain from the natural light would not become a problem. The residential block, suspended in the air, is designed with a skip-stop elevator, with twostory units wrapped in an L-shape around a central corridor. Each unit has a window on either side of the building, allowing breeze for crossventilation.



### WHITE PAPER ANALYSIS: CLOUD COVER DIAGRAM

#### **CLOUD COVER**

Cloud cover is more or less uniform throughout the year, hitting a high in December and a low in October. This presents several points of interest. A clouded sky creates a more uniform illumination, meaning that all windows on a building will receive equal light. It unfortunately also means that south facing windows will not be as effective in heating a space.

In an already cool climate, this cloud cover makes it difficult to passively heat a space. It also would seem to discount the use of PV panels, as there will not be enough sun to provide an economical source of power. In the hot summer months, the cloud cover could be an advantage in keeping the building cool. Cloud Cover vs. Temperature Cloud cover does not have any drastic changes throughout the course of the year. This is important in that it becomes evident that direct solar energy is limited.



# **RESIDENTIAL SECTION**



#### RENDERINGS



#### RENDERINGS





## **DRAWING SET**



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#### **VERTICAL RECLAMATION: PARASITIC SKYSCRAPER**

In cities, large skyscrapers become permanent landmarks. The decision to keep these buildings is not made in respect to the success of the building, but rather the investment already put into the building. Old and outdated buildings are kept, simply because it is less expensive to keep them than to build anew.

What if these buildings could be grown over? Adapted and absorbed into a new, dynamic architecture? This new architecture would not only take over and reform buildings, but the infrastructure around them as well, forming a new cityscape. Infrastructure would no longer be relegated to the ground plane only. It has been this way because of the reliance on the gas powered automobile. Imagine if there were a dynamic infrastructure in a city, modifiable by the inhabitants. When there is the need for a connection between two buildings, it can be made by the users of the building. When it is no longer needed, it is recovered and reabsorbed into the building.



# SECTION DIAGRAMS

The section beow notes the location of program in the design. It also shows how the infrastructure moves through the design. This same infrastructure would extend to other skyscrapers and vertical farms, creating a network above the ground, resulting in public spaces in the upper strata of Detroit. The section below also shows how sunlight could be used to ventilate the design. A stack effect created on the southern facade of the design would draw cool air from the northern entrance. Properly regulated this could supplement the HVAC system of the building.

The section to the right shows how the program is distributed in the design, as well as how light can enter.





#### RENDERINGS





The site view shows how the parasitic skyscraper would draw materials from the surrounding abandoned or under-utilized buildings. These buildings would be transformed into vertical farms. Farming would take place at the southern facade of each building, and the remaining interior would be used to process and package the harvested crop. Where buildings are removed, the land would become either parks and water retention areas or more farmland. Residents of the parasitic skyscraper could buy plots of the land, which would strengthen the connection between residents and the city.

## **INTERIOR RENDERING**



#### MATR DESIGN COMPETITION: THE PASSAGE

The Passage Installation was the winning submittal for the MatR competition hosted by Kent state University. The design team for the Passage consisted of Professor F. William Lucak, Victoria Capranica, and Griffin Morris.

The installation was a 42' long tunnel-like canopy that covered a portion of the sidewalk on a hill near Taylor Hall. It explored the translation of a complex three-dimensional object into an assembly of a reptitive nonstandardized component system through algorithmic and parametric means.

The installation is made of CNC routed 3/4" Marine grade plywood, treated with a weather sealant and stain. The joints are all pressure fit, and no glue was used.



# CONSTRUCTION IMAGES





#### **FINAL IMAGES**









## **OTHER WORKS**

#### **3D PRINTING**





### **DRAWINGS AND SKETCHES**





### **DRAWINGS AND SKETCHES**







GALLERIA

EMPHUEL MIL ANCO

APRIL 2008