GRID/PATH/PLACE

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DESIGNTRAIN CONGRESS – TRAILER I
ABSTRACT

Title: *GRID/PATH/PLACE*

Introduction:
This first-year project, called *Grid/Path/Place*, affords students the ability to learn about essential formal design parameters while exploring the humanistic, experiential, and urban ramifications of their work.

5 Keywords:
Grid, Path, Place, Humanistic, Dwelling

Materials and Methods:
Prior to engaging in the project, a series of preparatory analyses of grid conditions are undertaken. As an example, students are asked to create a small white box with a central square hole containing an orthogonal grid of black string. Discussions of formal ordering ideas such as hierarchy, tension, rhythm, and balance, are a main objective of the exercise.

After such analytic research, the specific *Grid/Path/Place* assignment begins. Students are asked to design a 10”x10”x3” high model with the following three primary elements:

-a continuous negative grid
-a path through that grid
-a place created within that grid

Several stipulations apply: the first ½” of the 3” high model should be a solid base; the grid must go to the base of the project; the final model must be made of both black and white museum board only; one texture must be incorporated into the project. During the class in which the project is assigned, sketching is developed. Two classes later, a half-size study model is built using common materials. Another two classes later, the final model is created.

Results:
I have found that more students actively engage this assignment and perform at the highest of their standards than any other first-year project I have administered in five years of teaching in the US and the UK. I believe that this happens because they can imaginatively project themselves into their models, often describing the project in urban terms where the grid becomes a “street,” the place a “courtyard,” and the positive volumes “buildings.” Although the project is never introduced as a community or urban design, there is a natural tendency, which is intended, for the students to view it this way.

Conclusions:
Conceptually, this project takes from previous first-year examples of understanding grid relationships, such as the famous nine-square project, but twists it into a new direction. The introduction of the *path* and the *place* into a grid-related assignment is intended to challenge the overriding geometrical understanding of that grid and introduce a more humanistic element to the model. In sum, notions of the *place*, and of the *path* leading to it, become a metaphor for the students’ own search for meaning in architecture, enabling them to invest themselves in and inhabit their work. The exercise becomes a unique and culturally variable process that personalizes the autonomy of the grid and reflects the students’ own ideas about dwelling in the world.

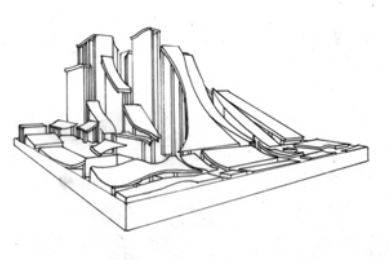

Figure 1. Perspective: Erica Goranson

Figure 2. Model: Erica Goranson

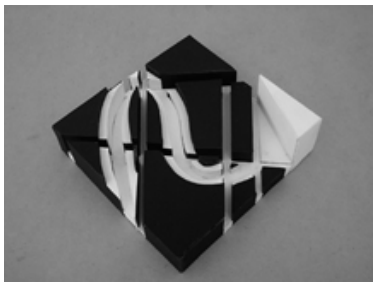

Figure 3. Model: Matt Long

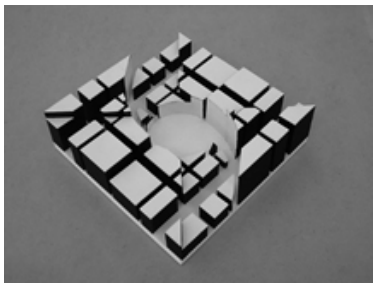

Figure 4. Model: Kevin Merrill

DESIGNTRAIN CONGRESS – TRAILER I
PAPER

This first-year project, called *Grid/Path/Place*, affords students the ability to learn about essential formal design parameters while exploring the humanistic, experiential, and urban ramifications of their work. The exercise grew out of a study of previous first year grid projects, such as the famous nine-square project, which has been used in many schools of architecture in recent years.[1] Such exercises focused on formal ordering principles inherent in the manipulation of the grid. Questions of hierarchy, balance, rhythm, positive and negative space, or asymmetry, for example, could be taught using such an assignment. Geometry was the primary vehicle for achieving such results. *Grid/Path/Place*, however, was created as an attempt to diffuse the insistence on geometry inherent in those projects.

Prior to engaging in the latter project, a series of preparatory analyses, that give students the opportunity to become familiar with grids as design conditions, are undertaken. As an example, students are asked to create a small white box with a central square hole containing an orthogonal grid of black string. Discussions of formal ordering ideas such as hierarchy, tension, rhythm, and balance, are a main objective of the exercise. Not only is a grid being produced, but the lightness of the string and its necessity of being in tension introduce the need for a high level of precision. In addition, the stark contrast of the white and the black requires that the student be very clean in the making of the box, and not allow fingerprints to sully the scheme. As a material, string allows for an often overlooked modeling substance to be explored while introducing conceptual ideas of weaving something rather than applying it.

A second exercise develops some of these ideas further and in three dimensions. Working in a model shop environment, students are asked to work in pairs to create a container out of rigid insulation foam with internal dimensions of 10”x10”x6”. Within that volume, any combination of horizontal or vertical rectangular prisms of the same material can be placed and secured, provided that they are continuous from end to end. Depending on the type of foam, the entire interior may need to be lubricated with an oil, gel, or wax. The volume is then filled with plaster. Once the contents are cool and dry, the foam is removed and can be carved out of any small interior passages. This intermediate exercise provides a strong counterpoint to the earlier assignment. The plaster, unlike the string, is heavy and disordered. By building the formwork first, the students must think in terms of the negative of their desired result. This helps to lessen the very common preoccupation among young architecture students of thinking only in terms of the object at hand. The process also simulates that of poured-in-place concrete construction, and therefore familiarizes the class with the real world methods of pouring into a framework.

In contrast with the preceding and following exercises, I have found it beneficial that this work be done directly in the shop the day it is assigned. In doing so, two conditions are encouraged. Firstly, the pair of students must collaborate immediately and spontaneously to achieve the work. Secondly, preconceived drawings are avoided so that the form makers must engage the materials directly at the full size of their desired project. This direct way of working hopes to serve as a counterbalance to the large number of scaled projects that the student will most likely have during their educational career.

After such analytic research, the specific *Grid/Path/Place* assignment begins. Students are asked to design a 10”x10”x3” high model with the following three primary elements:

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I have found that more students actively engage this assignment and perform at the highest of their standards than any other first-year project I have administered in five years of teaching in the US and the UK. I believe that this happens because they can experientially project themselves into their models, often describing the project in urban terms where the grid becomes a “street,” the place a “courtyard,” and the positive volumes “buildings.” Although the project is never introduced as a community or urban design, there is a natural tendency, which is intended, for the students to view it this way.

Conceptually, this project takes from previous first-year examples of understanding grid relationships and twists them into a new direction. The introduction of the *path* and the *place* into a grid-related assignment is intended to challenge the overriding geometrical understanding of that grid and introduce a more humanistic element to the model. Notions of the *place*, and of the *path* leading to it, become a metaphor for the students’ own search for meaning in architecture, enabling them to invest themselves in and inhabit their work. The exercise becomes a unique and culturally variable process that personalizes the autonomy of the grid and reflects the students’ own ideas about dwelling in the world.

That one would approach a project full-size without prior orthogonal planning speaks of a desire to question an architectural drawing system that exclusively encourages the use of scales. A typical drawing scenario is a linear one, moving incrementally from a small scale to ever greater sizes. One sixty-fourth gives way to one-eighth, to one-half, and so on. At the very last moment before construction begins, one might be tempted to draw or build a portion of the project the same size as the actual structure. That detail is commonly referred to as a “full-scale” prototype. Why is it that at the threshold of reality, when even building something of the exact same dimensions as the intended end result, we still turn our backs to that reality and call our efforts “scaled?” Could we not think in terms of “full-real” and develop a stronger, less striated, bond with reality? Could we not initially forgo orthogonal drawings that preconceive a reality often left unengaged, and embrace materials directly? Could we not relinquish a plan-centric over-geometricizing manner of working so that students can listen to conditions that arise from thinking through their hands?

Before the Renaissance, scaled architectural drawings were quite uncommon. In the Middle Ages, architects did not conceive of buildings as wholes, and certainly did not work in terms of scale. Gothic architecture was a matter of construction, of building through well-understood traditions of making. Physical construction came before geometry or theoretical musings, and conversations as to the building’s eventual outcome would continue down to the very end of the erection process. Slowly, throughout modern history, the ritualistic act of making architecture became diluted. Architectural order came to be discussed autonomously

in terms of proportions, rules, or other explicit principles far removed from the richness of prior architectural processes.

Scaled, however, was the world of the Renaissance. It had in its foundation the desire that works of architecture be thought of with respect to a certain point of view. This resulted in a new homogeneity and unity in the design process with which we are still dealing today. All objects in an architectural setting were to coexist in the same space and under the same lighting and atmospheric conditions. Perspectival geometric thought denied lived experience in favor of a detached universal world. How well did such scaled representations capture the environment of our inhabited world? Not very well at all. We should remind ourselves of the problematic nature of an architecture willing to sacrifice reality to its idealized mathematical representation, and to exchange embodiment in the world for disembodied vision. Such is the danger of an over-emphasis on geometry in early architectural teachings. The student runs the risk of becoming detached from personal investment in the project, and of developing him or herself into a three-dimensional aesthetician.

The twentieth century has witnessed many attempts at treating architecture as detached from culture and free of references to the natural world. Such instrumental thinking would suggest that students should not bring their own backgrounds and prejudices to bear on their work, but rather think in terms of universal design. This invites an architecture that would leave the earth and its constraints behind, an anti-architecture in fact, a mental creation willing to transform nature into a mathematical formula and the human being into a disembodied spirit. What, for instance, does a grid shift mean to a student? That they in turn should shift the geometries of their project? Such concerns draw little from a student's own past experiences and introduce ideas with scant relation to the natural world.

By deliberately introducing the idea of the *path* and the *place* into this gridded project, an attempt to reintroduce the possibility of an experiential architecture is at stake. I have found that students speak of the grids in mostly formal terms, describing their characteristics and dimensions, while they speak of the paths and places in more personal ways, telling how one interacts with them. This allows them to counter the impersonality of the grid to varying degrees. What was unknown to me at the outset of the project, however, is how the vast majority of students physically differentiated the place from the grid in their schemes. Spaces were carved out, elements were rearranged, and colors were inverted, so as to individualize the universal. As the students projected themselves into this construction, they were able to personalize the objective nature of the grid, and thereby restore experience as a primary constituent of architectural order. Could experience then drive architectural investigations prior to any lapse into geometry or typology? This is the desire of the assignment.

Personal experience is an embodied meaning that always precedes any understanding of form. Often, the first year studio is a platform for a teacher to attempt to erase preconceived notions and personal background from the design process. What one believes in should give way to an objective, analytical, and methodological study of principles. But the normality of experience precedes any such objective parameters and should be nurtured in any assignment. Eating, for instance, is critical to an understanding of the cafeteria, but yet transcends it. It can take place in other locations and can also exist without it. However a cafeteria without eating, without the serving of food, etc., is an empty condition. Cafeteria seen as type is always prefigured by the normality of the particular experience of eating. Yet experience appears to many to be uncontrollable, and too chaotic to be a foundation of architectural order. As it cannot be quantified scientifically and intellectually

compartmentalized, we remain unconvinced that there is more meaning in experience, as given through tradition, than there is in style, type, or geometry. The return to daily situations and experiences is not a nostalgia but a request for intellectual truthfulness. It is not a calling upon of the great days of ore, but an attempt to illicit the latent meanings in personal situations that vary from student to student. By countering the mainstream approach of teaching first-year students by means of a series of scaled design problems, these *Grid/Path/Place* exercises, which are never introduced as being models for another reality, attempt to develop a humanistic attitude within a formal setting.

[1] Cappleman, O and Jordan, MJ (1993), *Foundations in Architecture: An Annotated Anthology of Beginning Design Projects*, Van Nostrand Reinhold, New York

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