# Underlying Assumptions: Constructing Identity

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Architecture, because it crosses so many discipline boundaries, operates from the foundations of many and varying world views. Some world views are born from object oriented-disciplines like geometry that tie us back to ancient constructions of Platonic "Forms." This Classical world view suggests that the knowledge we seek is innate and prefigured in the structure of our minds. Our desire for order is sought through our natural capacity for pure reason. It is one of the oldest and most abstract constructions of how the world is conceived-it is not, however, anywhere near death as an operating position. In fact, this Rational/Classical world view reappears at seemingly regular intervals in history as a comfortable old friend when we seem to have lost our way.

The larger picture of the architect's struggle to understand the world and operate within it follows the pattern of inquiry evident in other disciplines. Movements that present different ways of understanding the world and constructing knowledge ripple through all Western thought and, by consequence, architectural practice. The current debate concerning the role of architecture, whether or not it mediates or interprets, is at the forefront of other disciplines as well, and it mirrors some of their concerns about how we come to know, understand, and what "facts" we construct that identify our relationship with the world.

The content of the course outlined here is introduced in the second semester in a course of seven semesters of study for career-change students. The first studio introduces these students to basic spatial concepts and indoctrinates the students in the language of design. The second semester studio intends to bring the career-change student up-to-date on theory and its relationship to design. To do so, I ask each student to "become" four very different designers with four divergent world views. Each of the four problems given during this semester immerses students in a completely different set of principles, procedures and design approach.

The intent of this studio is to educate students in the connection between a range of world views and their impact on design. This content assists the student in understanding their individual relationship to the plethoraof "ways" one can proceed in design. My belief is that they should become familiar with these different positions because, at some time in their life, they will come into contact with instructors, other students, another designer, client, or user group that does hold a different world view from their own. Communication can only be improved if all the "hidden" assumptions are understood by the designer. Having a good understanding of their own biases, their own view of the world, and its underlying assumptions, can only help them to make more intelligent and informed arguments about the directions in design they wish to pursue.

## THE UNDERLYING ASSUMPTIONS OF THE RATIONAL DESIGNER

The first problem the students face is based on Rational/Classical principles. Rational, in this setting, is defined in the original sense of derivation from "ratio." I assign a project that requires each student to "become" a Rationalist in the oldest sense of the word. The students are asked to put aside all experiential issues and to become a being of pure reason. They are asked to do this even if the find that they are not suited to this position. I include information that describes jurisprudence as arational system so that they understand that this view of the world is still quite alive and evident in their everyday lives (See Appendix A & B). As Rationalists these beginning designers must believe that beauty is absolute and is engendered in ideal "forms." These forms exist, for Platonists, somewhere in reality. For those who follow a later Rationalist version, "forms" exist in both the mind and body or only in the mind. Whether or not the students believe that forms are in the mind or in the world, or both, they must approach their design problem with a sense that "forms" do exist as universal entities.

The first problem is the design of a simple pavilion without any function other than pavilioness and no particular site other than the geometrized site around the pavilion. The site design must guarantee its elevation from the messy, complex, and disintegrating world that surrounds it. To design within this world view the student must familiarize him or her self with various historical methods for satisfying the reinvention

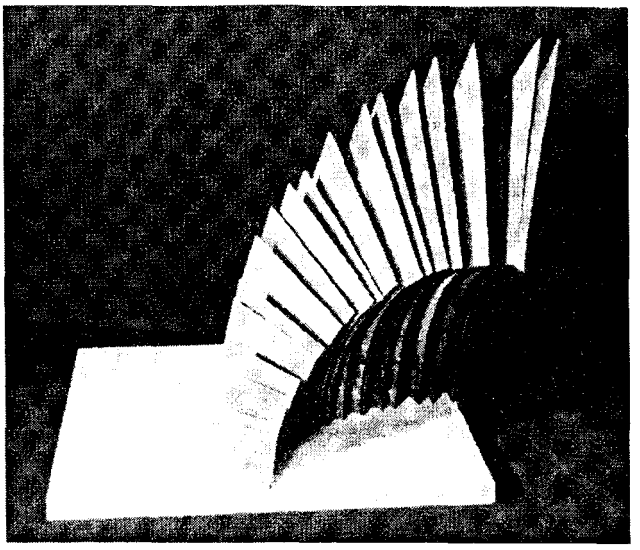


Fig. 1: Pavilion by Stefan Kestler, 1997

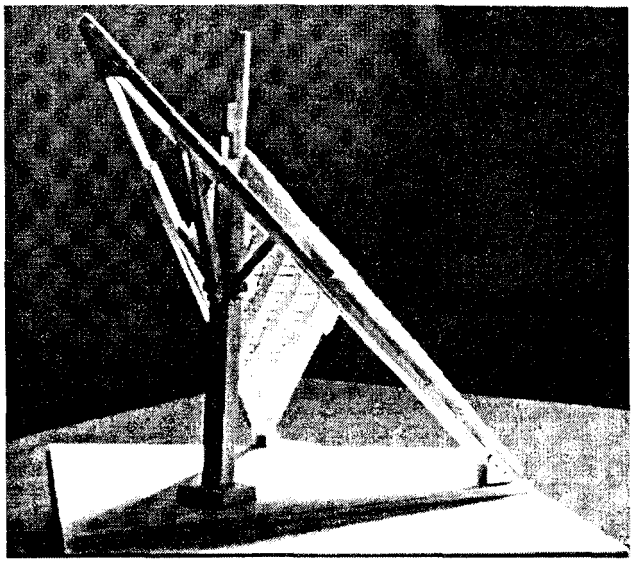


Fig. 2: Pavilion by Janice Wen, 1994.

of universal forms. Although the methods for proceeding in design include knowledge of proportioning systems, golden section, the orders, regulating lines, modular design, ken, anthropomorphic proportionality. and any other systematized universal rules, the students are encouraged to stretch the boundaries of known systems and come up with ageometrical or arithmetical system of their own. To be successful they must learn what it is to deduce their design moves from a premise — the original rule-system engendering eternal form. It is made clear that I am not asking for objects that "look" classical, rather, I want them to wallow in a system of their own devising and keep their design moves at a level of pure reason.

Although many of the students struggle with the Rationalist position, they get the point after a couple of weeks work. They generally find it difficult to give up functionality and experiential attitudes, as well as their "loose" understanding

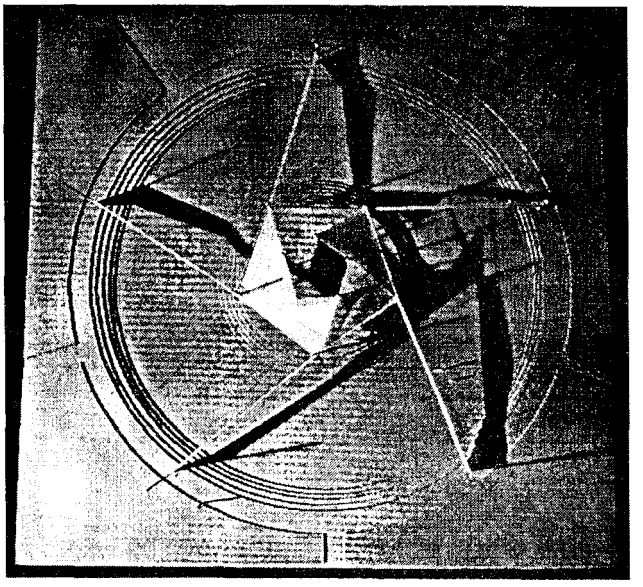


Fig. 3: Pavilion by Dan Drennan. 1975.

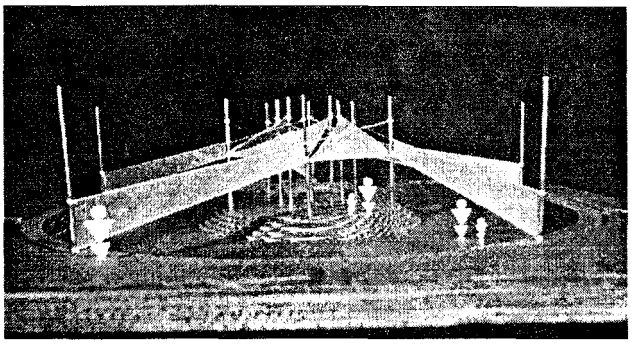
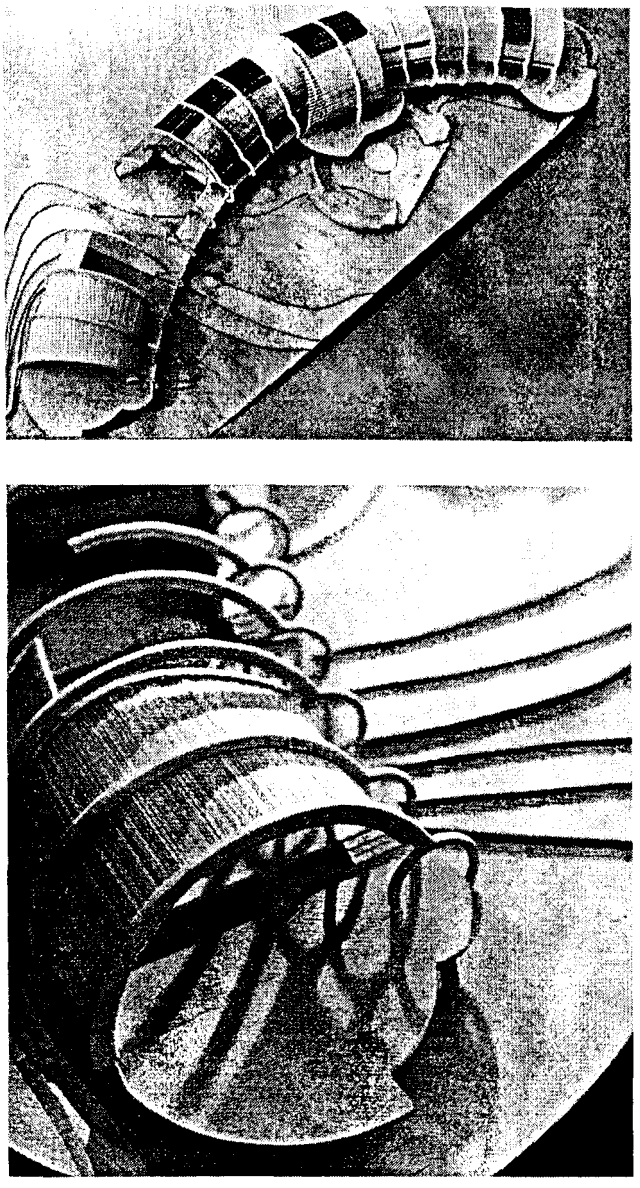


Fig. 4: Pavilion by Dan Drennan, 1995

that meaning is relative. However. towards the end of the project most students begin to understand the clarity of such a world view and its attraction for architects––its purely geometrical play forces them to think beyond issues of a pragmatic source and simple function. to begin to find beauty in geometry and its pure manipulation. They also recognize the desire to eliminate complexity from the world, or at least ignore it, through the introduction of order. Since the conclusions, or design solutions. must follow from the premise — an abstract "clean" mathematical or geometric system—the students also find it an uncluttered process.

## THE SENSATE NATURE CENTER

The second problem of the semester is complex and messy. I usually give them a project that has to do with sensuousness and sustainability-generally a nature center. For this problem I combine two different views, Empiricism and Pragmatism (Post-Positivism is covered in order to clarify Empiricism), each with somewhat different underlying assuniptions but which are naturally combined in the common-sense, everyday life of most Americans. The students read about the



Figs. 5 -6: *Nature Center by Stefan* Kesler, *Hans Thomas,* & Min-*Sok* Suh, *1997.*

*Enlightenment and Transcendental Pretense as well as an article by the American philosopher Pierce.*

*Both Empiricism and Pragmatism have aspects of experiential base (the world is "real") and in both truth is relative to a situation (see Appendix B & C). The students feel comfortable with the world view expressed in this project because it combines the tendencies of American designers toward pragmatic solutions in a world "out there," that one can see, touch, smell, taste, hear, and move through. This view incorporates the students' tendencies to think of the world as outside of their skins—as an entity that is removed from their inner life altogether. Generally these students believe that they can view the world objectively and derive rneaning from this encounter. Design would be observation and hypothesis setting and testing. Not exactly scientific, but this was not the purpose.*

*The students are told they must respond to the experiential nature of the site with all their senses. They are to think about "others" as independent of themselves yet with similar thought processes and sensate abilities. Their experience, although relative, is shared through basic laws of physics, chemistry, and behavior. At the same time, they must solve a problem given a particular site, a particular program, an emphasis on sustainability, and other issues that are thrown at them at different stages of the project. Here they take the Pragmatic view that beauty is derived from the usefulness of the buildings and its "fit" with the particularities of the region and site. Their process becomes one of modeling the state of affairs, testing it against the preferred state of affairs—the building's purpose—and to finally take action without all the "facts" completely worked out—a typical design situation.*

*Design as procedure is a curious mix of rational thinking (the modern definition of the word rational being "reasonable") and determinism. It is a cyclical process, as a Pragmatist would have it, and the steps are formed through hypothetical* "either/or" *and* "if/then" *statements concerning the nature of the project and its resolution. Each hypothesis proves either useful or not and is cycled back to the original, more abstracted statements of need. Analog models are produced that test each hypotheses. Each cycle suggests that knowledge is added to the system and folded into the design response. This is a typical, pragmatic way of functioning. One studies the "situation" and acts on it with the best knowledge to be found to resolve the conditions of the problem satisfactorily. Each completed building is considered a determinant snapshot of the project, client, users, and designers, at a point in time. The same solution, however, may not be a useful response for another time, place, and group of people-although one can learn from the process—the building is always particularly relative to its circumstances.*

*Beauty is equated with serviceability, but this becomes equated, at times, with the sustainability issue and resolves itself with the building that is a machine, a metaphorical model rather than an analog model. I am unsure whether this is an appropriate response. At one and the same time "serviceability" can be thought of as naturally cooling the building and therefore the response would be to form the building to account for this process. A more abstract understanding of serviceability is the promotion of the programmatic use of the building. The best responses, of course, are those that satisfy both regional and particular functions successfully.*

## PHENOMENOLOGICAL ROOMS IN WINTER AND ROOMS IN SUMMER

*The third problem is a phenomenological one. The students are directed to remember an essential experience from their youth that is reconstructed through Proust's images of "rooms in winter" and "rooms in summer." These experiences are considered essential to all humans, no matter what their cultural background or societal boundaries. The* exer-

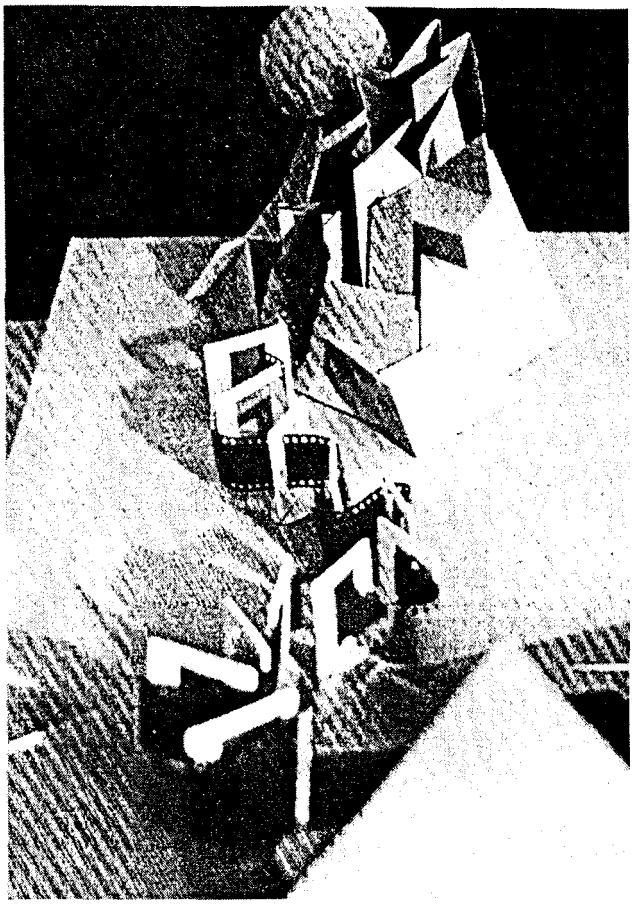


Fig. 7: Conceptual model of *remembered* winter & summer "Rooms", Min-Sok Suh, 1997.

cise takes the student from an image that they equate with the two "rooms" to an analysis of their intentions towards the experience and what can be learned from it for future design projects. Phenomenology is generally not a good "fit" with design because as it transcends the physical world it attempts to eliminate the subject/object dichotomy (See Appendix D). However, it is relied on heavily in some architectural theory and practice and it is better understood if attempts are made to apply it to design. It is difficult for the student to understand how to analyze an experience as they are intentionally "being" in it.

This project, although modest in scope, is one of the most difficult for the students. They are unsure, generally, of what is being asked and how they should proceed. It is probably one of the most foreign world views to their accustomed way of understanding the world. While I provide them with some methods for analysis, I warn them that they are not practicing phenomenology to its fullest — they find it generally difficult to let go of the physical world to wrestle with the "things themselves." The students struggle towards an understanding of their personal experiences of "rooms in winter" and "rooms in summer then return to an analytic mode to discover and "use" the information derived in the process. Students come out of this project believing that they have touchedon something that is critical to their practice of architecture, but they just do not

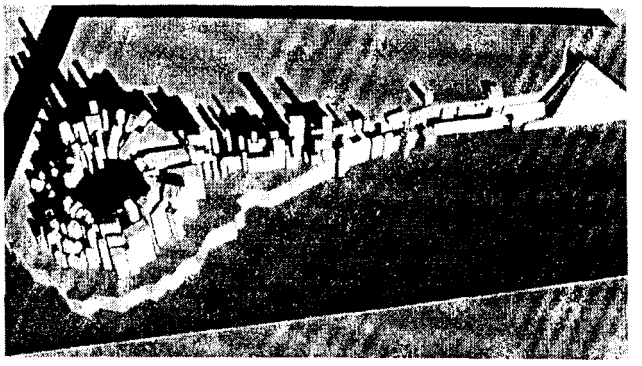


Fig. 8: Design of winter & summer "rooms", Min-Sok Suh, 1997.

yet know how to communicate and utilize its strengths.

## THE STRUCTURALIST/CONSTRUCTIVIST ROW HOUSE

The final project mixes an unlikely set of world views (see Appendix E). I introduce the underlying assumptions as a continuum from the hard left of Structuralism and its belief in the existence of a beautiful, generic order; to the hard right of Constructivism where evolving, unresolved patterns in the world are considered natural and beautiful. The project that I use is the design of urban row houses. The students are teamed-up and are told they must find the existing patterns of living in the neighborhood and the appropriate patterns of "type" for row house living. From these patterns they derive some "rules" that all people in the group have to follow. At this point they begin a team/individual approach to design. On one hand, the team observes and analyzes patterns from the "field" finding typologies and hierarchies from which they can generate new solutions. On the other hand, they are told to be interactive with their contractor/client. They are to consider the process of solution to be hermeneutical, a working back and forth between part and whole. Each stage of the process adds a layer of design that requires a recycling of all other decisions.

This kind of bastardization of positions is necessary, in part because of time and in part because of scale. At the scale of community the students are to be Structuralists and accept the fact that there is some collective order that they must find and interpret within the field of existing cultural patterns. At the scale of the individual row house they must switch to a Constructivist mode and practice a more personal, interactive mediation process. If these two stages remain separated from each other, the students do not become confused. In fact, they seem to recognize that different scales may call for different procedures and methods to be applied.

The notion of beauty, however, becomes quite complex. Are patterns static, and therefore eternally applicable? Or are patterns evolutionary — it being part of the architect's job to assist in this process of discovery rather than accepting static patterns as "given." This is a tough problem for students, and they are never really sure how to resolve this issue. It begins

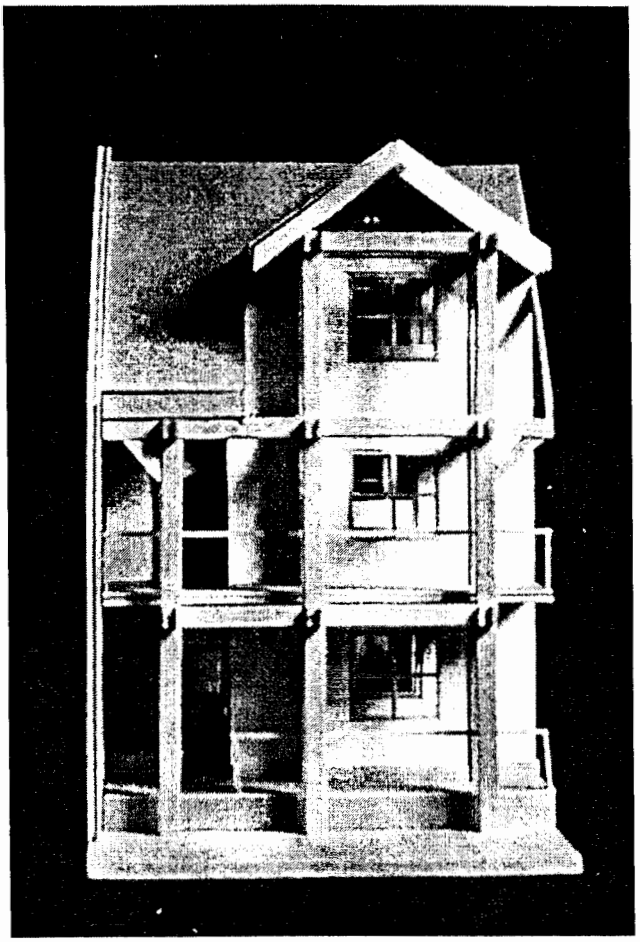


Fig. 9: Row House by Dan Drennan, 1995

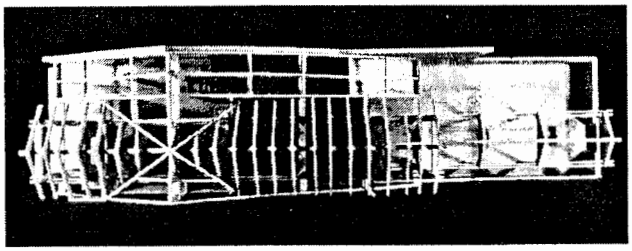


Fig. 10: Row House by Dan Drennan, 1995.

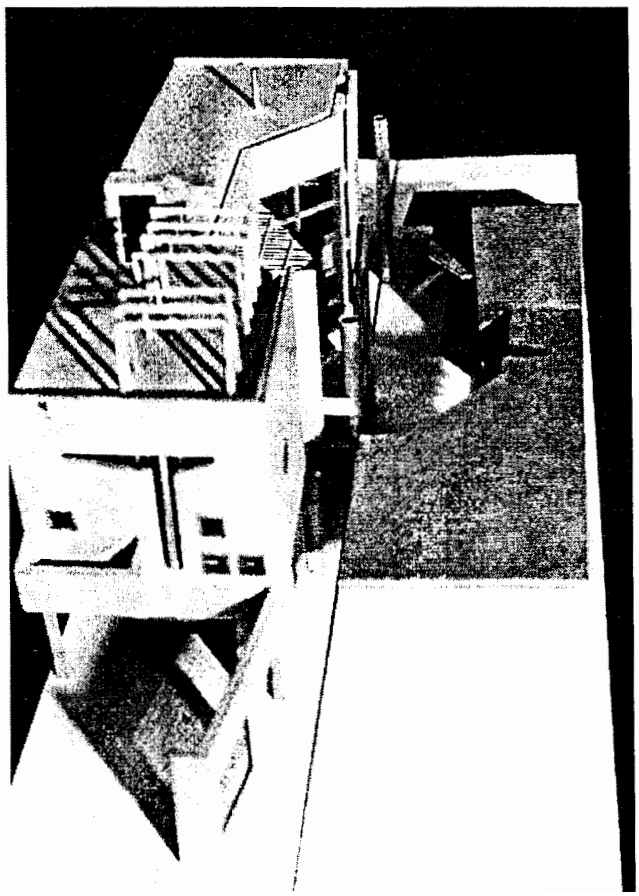


Fig. 11: Row House by Elizabeth Bradford, Stefan Kestler, & Min-Sok Suh, 1997.

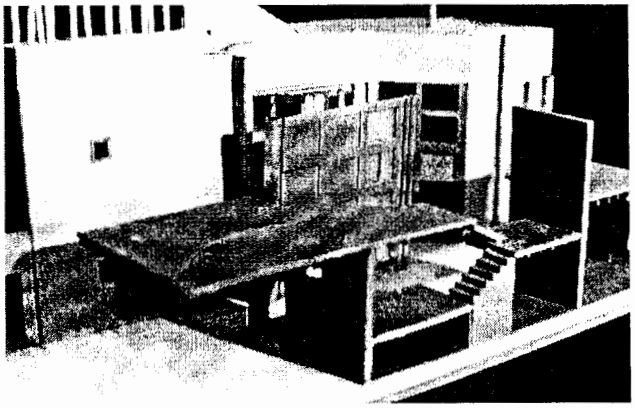


Fig. 12: Row House by Elizabeth Bradford, Stefan Kestler, & Min-Sok Suh, 1997.

a debate concerning the role of the architect in relationship to their clientele. This course does not aim to resolve these issues. Rather, the course simply stirs the pot and educates the student with just enough knowledge that they must pursue further if they are to feel that they are on steady ground and are sure of their view of the world.

The "unresolved" sense of the whole course of study is intentional. I do not supply these students with a pat "answer" that would allow them to proceed in design with a clear conscious that they are on the right track. Each student must wrestle with the world views and resolve their own identity as a designer. However, these issues are too important to be resolved in a short period of time—in fact, they often require a lifetime of struggle and challenge. However, the information introduced in the class is sufficient to begin this journey.

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Appendix A

| **Rationalism** | Jurisprudence (a rational system) |
|---|---|
| **Knowledge** is innate--prefigured in the structure of the mind. | **Knowledge** is logic--deduced through the principles of reason. |
| Knowledge is embodied in pure reason. | Knowledqe is embodied in precedents |
| **Procedure** involves the apprehension and manipulation of forms found in the world in order to discover the underlying universal rules of "ideal" forms. The product is an analog model whereby the abstract objective is to reproduce the structure of the original "Form."<br><br>Premise-->Deductive Inference--> Conclusion = Truth | **Procedure** involves the pursuit of consensus through negotiation. It proceeds on the basis of the implications of self-evident truths achieved through accurate definitions, clear thinking, and exact analysis. The product is an analog model whereby the abstract objective is to reproduce the structure of the original form.<br>Precedent-->Consensus-->Truth = practice through polemics and negotiation. |
| **Method** is the use of skepticism, introspective reasoning, Socratic discussion, clear definitions, and deductive logic. | **Method** involves the justification of plausible arguments through appeals to logical precedents. |
| **Truth** is found in those deductive inferences that, having survived all reasonable chal-lenges, follow from an acceptable premise. | **Truth** is found in those deductive inferences that, having survived all reasonable chal-lenges, follow from an acceptable premise. |
| The Objective is to eliminate worldly complexity with conclusions to be found in precedents of pure and absolute Form. | The **Objective** is to justify an argument the roots of which are to be found in historical precedents through consensus. |
| **Meaning** is permanent and unchanging. | **Meaning** is interpreted from precedents. |
| **Beauty** is absolute, objective, and engendered in eternal form. | **Beauty** is absolute as embodied in the eternal form of deductive argument. |
| **Design** is the search and cultivation of relationships such as those found in proportioning systems, the golden section, the orders, regulating lines, modular systems, ken, interlocking ratios, and any other absolute rule systems deemed to be universal. | **Design** is the development of a well formed argument that is constructed from case study and applied in a logical and convincing manner. |

**Appendix** B

| **RATIONAL**<br>Ethereal & Heavenly | **ROMANTIC**<br>Paradisical & Worldly |
|---|---|
| **Context** is ignored as it is found.<br><br>Built form removes itself from chaos by:<br>·raising a base,<br>.geometrizing the landscape, and<br>·holding itself rigid. | **Context** is celebrated (not always as found).<br>Built for revelsin natural complexity by:<br>·pushing into the landscape,<br>·capturing the landscape, and<br>·landscape is manipulated naturalistically. |
| **Time** has an Athenian theme that identifies with the classical order and is related to timelessness.<br>This imagery is meant to evoke a timeless no-tion of architectural identity and materials in an other-worldly or heavenly manner. | **Time** has an *Attican* theme that identifies with the idyllic, pastoral tradition and is related to relative time.<br>This imagery evokes a romantic notion where patina and decay have worldly and artistic implications. |
| **Geometric Order** includes:<br>·Form and plan are controlled by classical geometry, proportional systems, and symmetry of equal parts = a static harmony.<br>·Form is set and everlasting.<br><br>.Movement is symmetrical, simple, and central. | **Variety** within **Dominant Order:**<br>·Form and plan are controlled by balance of unequal parts and a tension between repose and complexity = dynamic hierarchy.<br>·Form should express incremental growth.<br>.Movement is asymmetrical and complex. |
| **Function** is submissive to a higher order & form. | **Function** is inclusive by honest expression through form. |
| **Power** is by control: through generating systems (like the orders) with rules of manipulation.<br>·Color is pure and planar-of another world.<br><br>·Articulation or ornament is constant.<br>**Greatness = stillness.** | **Power** is by parasitical sublimity: tension is expressed through subordinate and dependent forms.<br>.Colors are earthy with gradations.<br>.Articulation of ornament has levels of emphasis.<br>**Greatness is held in tension.** |

**Appendix** C

| EMPIRICISM | POST-POSITIVISM | PRAGMATISM |
|---|---|---|
| **Knowledge** is sensation. | **Knowledge** is symbolic of sensation. | **Knowledge** is information. |
| Knowledge is embodied in experience. | Knowledge is embodied in the translation of experience. | Knowledge is embodied in models. |
| **Procedure** is direct and objective observation producing laws that govern and determine. | **Procedure** is indirect and objective observation and produces probable laws that govern and determine. | **Procedure** uses corroborated analogic models to govern intervention relative to the present situation. |
| **Method** is a linear procedure, reductive in nature, that relies on unbiased observations to confirm hypothetically predicted events which are isolated throuqh experimental controls. | **Method** is a linear procedure, reductive in nature, that relies on unbiased observations to confirm hypothetically predicted events which are isolated through statistical controls. | **Method** is the continual, cyclical corroboration of analogs against observable states of affairs in order to improve the correspon- dence of the analog with emerging events. |
| **Truth** is gained through verifiable sense data and is established as objective facts and laws. | **Truth** is qained throuqh techniques of demonstrative inductive inference which permit instant assessment of probable thresholds for hypothesis rejection. | **Truth** is relative. Analogs are used to produce tentative or provisionally substantiated representations of observable events for the purpose of making further approximations. |
| The **Objective** is to positively identify laws that govern and determine. | The **Objective** is to probably identify laws that govern and determine. | The **Objective** is to solve the immediate problem at hand and to take action to "fix" it. |
| **Meaning** is extrinsic and objective. | **Meaning** is extrinsic and symbolic. | **Meaning** is derived from use. |
| **Beauty** is relative and specific. | **Beauty** is relative and specific. | **Beauty** is a relative function of serviceability. |
| **Design** is inquiry--the collection and classification of all observable sensate data, identification of variables, development of hypothesis, experimentation and test, evaluate and report. | **Design** is inquiry--the collection and classification of all observable data, identification of dependent and independent variables, development of a null hypothesis, experiment and test, evaluate and report. | **Design** is a model of predictive modeling, diagnosing the problem, action planning, action taking, evaluation, and specifying learning. It is cyclical in nature. |

**Appendix** D

| HUSSERL'S PHENOMENOLOGY | EXISTENTIAL PHENOMENOLOGY |
|---|---|
| **Knowledge** is essential--reduced to the pure flow of consciousness. | **Consciousness** is intentional--doing, participating, and choosing. |
| Knowledge is embodied in phenomena, "to the things themselves." | Consciousness is embodied in the self-conscious actions we take towards phenomena. |
| **Procedure** is presuppositionless, descriptive analysis through suspension of judgment and produces descriptions of essences. | Procedure is the abstraction of self from the surrounding world-- essentially expressing being-in-the-world and produces a self-reflection, or the reflection on our consciousness of objects. |
| **Method** is by means of suspension of judgment through the bracketing of experience. It is linear, yet can always be revisited. | **Method** is phenomenological description of the "things themselves" through intentional acts. It is hermeneutical as one moves from part to whole and back. |
| **Truth is** the intuition (examination) of essences or ideal structures-- going behind all preconceptions to that which one cannot doubt or question. | **Truth is** propositions that take essences as their subject-matter. They are necessary (essential) truths and must be distinguished from propositions about essences. |
| The **Objective** is to explore "what is knowledge." | The **Objective** is to explore "what it is to be a person. |
| **Meaning** is the object of consciousness. The object of consciousness is its meaning. | **Meaning** is the object of consciousness. The object of consciousness is its meaning. |
| **Beauty** is the aesthetic experience-- the essential structure of aesthetic experience as "appearing" to consciousness. | **Beauty** is the act of being-in-the-world and the self-conscious discovery of its meaning. |
| **Design** is the bracketing by phenomenological reduction, the steps of which are: psychological reduction, eidetic reduction, phenomenological reduction, reduction of the pure subject to the transcendental subject, and reduction of the transcendental ego to a "pure flow of consciousness." A designer must move back through the process to phenomenoloqical reduction to reapply what is learned physically. | **Design** is phenomenological description, the steps of which are: describe what one is doing as well as one's knowledge of what one is doing, describe our knowing how to do something, describe one's preconscious or prereflective involvement in our actions, and actively participate in what is "observed.." A designer must; reflect on the information gathered in order to apply it to the act of design. |

**Appendix** E

| STRUCTURALISM | CRITICAL THEORY | CONSTRUCTIVISM |
|---|---|---|
| **Knowledge** is generic. | **Knowledge** is a series of structural/historical insights. | **Knowledge** is constructed. |
| **Procedure** constrains intervention through deterministic proscription. A full understanding of an internally consistent pattern which generates molar events that define the situational limits within which those events can occur. | **Procedure** is uncover and excavate historical and subjugated knowledges through a dialectical process of historical revision that erodes ignorance and enlarges more informed insights. | **Procedure** a relative, hermeneutical, dialectic process by way of the formulation of ever more informed and sophisticated constructions. Knowledge is gained through vicarious experience, supplied through case study reports. |
| **Method** is the successive approximation of categories which interact to exhaust the naturally occurring events identifiable in a given problem area. | **Method** is dialogic and dialectical-the transactional nature of inquiry requires a dialogue between investigator and subjects and the dialogue must be dialectical in nature. | **Method** is hermeneutical and dialectical-the intramental nature of social constructions requires interaction between and among investigator and respondents. |
| **Truth** is the imposition of techniques of pattern analysis to define the invariant underlying factors that interact to produce situational variance. | **Truth** is the extent to which the inquiry acts to erode ignorance and misapprehension, and the extent to which it provides a stimulus to action-to the transformation of the existing structure. | **Truth** is the trustworthiness of credibility, transferability, dependability, and the authenticity criteria of fairness, ontological authenticity, educative authenticity, catalytic authenticity, and tactical authenticity. |
| The **Objective** is to uncover underlying absolute and universal structures that order behavior in a particular culture. | The **Objective** is the critique and transformation of social, political, cultural, economic, ethnic, and gender structures that constrain and expliot humankind, by engagement in confrontation, even conflict | The **Objective** is to understand and reconstruct the constructions that people, including the inquirer) initially hold, aiming toward consensus but still open to new interpretations as information and sophistication improve. |
| **Meaning** is absolute (permanent) and collective. | **Meaning** is historic realism. | **Meaning** is relative and ephemeral. |
| **Beauty** is static pattern. | **Beauty** is the transformation of patterns. | **Beauty** is the evolution of patterns. |
| **Design** is pattern analysis including observations of the field; formation of categories; arrangement of typologies, hierarchies, and matrices; and development of a generative taxonomy. | **Design** is based on the dialogue between the designer, subjects, and the project at hand. The designer formulates a structure based in dialectics (this/that) to relieve conflict. | **Design** is an interactive process whereby the community involved is intimately tied to the decision making during the process of design leading to a dynamic process of give and take until a temporary whole emerges. |