# ARCHITECTURE AS THE OCCUPIED LANGUAGE: A COMMENTARY ON THE PEDAGOGIES OF CRAFTSMANSHIP IN DESIGN-BUILD

By

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A THESIS PRESENTED TO THE GRADUATE SCHOOL
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To my professors

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Architecture, as a discipline, casts a wide net within the branches of education. In turn, architectural pedagogy due to its fluid nature, challenges the educator and student to establish and re-establish languages appropriate for architectural thinking, making, and human dwelling. Drawing on this statement, architectural design and building can be seen to occupy an unstable territory of permanently shifting allegiance, and this is true of both the histories of these two sets of thinking and the two families of discourse surrounding them. This study explores the gaps in the interdisciplinary evolving nature of design, craft, and making, in order to propose pedagogical overlaps for thinking, making, imagining, and communicating. Craft, as it relates to architecture pedagogy, is a term applied to the architectural process of techniques in which artifacts are made by hand and eye. Historically the craftsman/ artisans, who showed a sense mastery of technique and embodying fitness or purpose- and trueness of material, operated in the contextual interdisciplinary gap between thinking and building. The craftsmen's roles to their communities changed within the turn of the Industrial Revolution. What is outlined is a paralleled re-visiting of the evolution of craftsmanship and the influences that it embodies when addressing design-build pedagogy in architecture.

# CHAPTER 1
# PROLOGUE

Memory is peculiar. It is so selfish. It occurs and reoccurs and even reshapes itself to seem more attractive. I sometimes do not want it, but it is me. When the terms architecture and making are stated or written the same memory competes in my head. I pay it no attention--afraid of the mental imprisonment of nostalgia. But it is not nostalgia. Is it? It is a memory that begs to be remembered.

Fourteen years ago, on a hot, searing, and orange summer, I sat under a mango tree in my mother's courtyard. This was a familiar place for me to draw in the sand with my toes and delight in the fact that this island can produce mangos nine months out of the year. The courtyard was a generous space organized by a huge basin, hundreds of ballast stones, and a long and porous cast iron gate. This was handcrafted gate that filtered the western light at dusk and in the dawn the artistry of its carvings framed suitable vistas. The small views told particular tales distinctive of Haitian society; there were women bartering for hens in the adjacent house, a man with callused feet lugging a korosòl (star fruit ice-cream) truck, and another craftsman working on several wooden pieces. The latter man, as the neighborhood affectionately named him, was Bòs Mason. The name (literally translates verbatim the "Boss of Masonry") was used to identify master craftsmen in the Delmas. The Delmas were tightly woven neighborhoods that were located in the mountains of Haiti and overlooked the more urban layout of the rest of Port-au-Prince. A name packed with much meaning; at once it translated a sense of authority, intellect, and fondness for materiality. The Bòs, I would later find out, was making a wooden *dodin* (rocking chair) for an aged woman that lived across the street from him. His process of making was oriented with an intense poetic slowness. His humble and calculated acts seemed to declare a personal fondness for that very slowness. I imagined if the speed of his process was to increase

that some aspects of understanding his *craft* would have been lost. He had aged skill with his tools. The making process seemed inherent in his Being. What was portrayed as years of practice, the Bòs's act of making implied a conscience of "*prehension.*"

This craftsman had a vast capability to grasp simultaneously the making with the mind as mental apprehension and the hand as the physical. Sociology professor and urbanist Richard Sennet describes this idea of prehension:

> To say that we "grasp something" implies physically that we reach for it. In the familiar physical gesture of grasping a glass, the hand will assume the rounded shape, suitable for cupping the glass, before it actually touches the surface. The body is ready to hold before it knows …The technical name for movements in which the body anticipates and act in advance of sense of data is *prehension*.[1](Sennet 2008)

Prehension stemmed from Alfred North Whitehead's early twentieth century Process Theory. He established the philosophy that the world was a process rather than an object. In terms of the craftsmen parallel, when Whitehead spoke of the *individual* within the world he stated that experience was primary--and preceded matter. Matter and substance, even forces and energy, were for him later products of our imagination.[2] Truly a craftsman has embodied knowledge already, however, prehension parallels a craftsman's pre-imagination. Could one be predestined to be a craftsman? Or is it through hours of practice that routine becomes a craft? It seemed as though by now as an artisan, Bòs Mason's hands had become an extension of his mind. The hammer was a tool to stimulate his visualizations. The angle chisel against the wood grain drew from his imaginations. Materiality was the main character in his constructed story.

The dark and oil filled shop where he worked was usually silent, unless accompanied by clamors of material wrought sounds. Bòs Mason was never known for his adequacy as verbal communicator, but it seemed his emotions and languages were held in his work. Hannah Arendt in the *Human Condition* concluded the mind engages once labor is done. In the case of Bòs

Mason, however, a more balanced view is that thinking, communicating, and feeling was contained within the process of his making[3].

The Bòs Mason played a social role in the Haitian community as a maker. The classic Greek philosopher Plato mapped the etymological derivation for "making" as *poiein*. Poetry as derived from poiein allowed Plato to observe that all craftsmen were poets. And as poets their role is not simply to achieve irrelevant acts of production, but instead, to communicate an ideology of the work through the process of making. The object produced by Bòs Mason epitomized his role in Haitian society. Moreover, the process of producing the object was the connective tissue between the Bòs Mason and his neighboring patrons. Because it inevitably carries meaning *that object* will contain all of the advancements and contradictions manifested in the society of which it is a product, speaking to the relationships among its members and, in turn, the relationship of those individuals to the environment they occupy.[4] Making (poesis), in this sense, is the act of a creative process and its affect to the social environment, as oppose to the end product. What do these sensibilities have to do with architectural pedagogy? It is worth recalling that architecture once depended on the directed skill of the poetic craftsman. It was oriented to her slow, meticulous methods, bound by her primitive technology and guided by a firm system of social ethics. Craftsmen worked in the critical gap between the design and building. Arguably, this position for thinking, making, imagining, and visualizing is one of the most critical settings in architectural education. With this mind it is essential to ask a series of questions: What is the pedagogical evolution of a craftsman? How do these implications help focus on the critical gaps that craftsmanship dwells in architectural thinking? What role do the craftsmanship sensibilities have in the architectural curricula?

This introduction proposes what the following commentaries demonstrate: namely that the interplay between (architectural) design, building, and craftsmanship is a revealing focal point for analysis. The commentaries establish, in addition, the inadequacy of normative or unchanging usage of the terms design, craft and building, which is mutable in relation to both time and space. The introduction reviews some salient instance in the development of experiences that surround a craftsman, while the commentaries which follow identify relationships between craftsmanship and architectural pedagogy, a case study of design-build and material practice.

## Parallels of the Architect and Craftsman

> The Japanese word *shokunin* is defined by both Japanese and Japanese- English dictionaries as a 'craftsman' or 'artisan', but such a literal description does not fully express the deeper meaning. The Japanese apprentice is taught that shokunin means not only having technical skill, but also implies an attitude and social consciousness. These qualities are encompassed in the word shokunin, but are seldom written down…The shokunin demonstrates knowledge of tools and skill with them, the ability to create beauty and capacity to work with incredible speed…The shokunin has a social obligation to work his best for the general welfare of the people. This obligation is both spiritual and material, in that no matter what it is, if society requires it, the shokunin's responsibility is to fulfill the requirement. (Odate 1984)

The origin of shokunin and the bòs mason, although separated by 7000 nautical miles, reveals a similar sensibility of a craftsman and his role to his community. The name of each craftsman holds unspoken social imaginaries. Along the lines of Michel Foucault- social imaginaries pertain to the way people imagine their common existence, how they fit together with others, how things go on between them and their fellows. Craftsmen in Japan and Haiti hold a critical spatial consciousness in the imaginary matrix of society that goes well beyond their acts of fabrication. The Shokunin and the Bòs Mason interpret the social minutiae of their surroundings, in order to develop a poetic response for the object made.

**Craftsman and builders:** Furthermore these craftsmen are more than just *builders.* A builder simply assembles objects together; the craftsman has an affinity for his materials, tools, and conciseness of specific techniques during the making process. This is craft proper, the method by which the vast majority of human artifacts have been designed in human history.

In the absence of drawings, the defining characteristic of the craft approach is that craftsmen work immediately with their materials. Final dimensions are determined only as the materials are actually worked and the artifact actually made. There is no separation of designing from making. The two activities take place at the same time. There is no separation of designer from maker. They are the same person. Think of the potter at the wheel. Initially craftsmen, however, did not work with the automatic precision of machines, rather, they compensated for errors, inaccuracies, and inconsistencies in the material as they work. They change their minds as they went along. They considered what they had done and respond to it, maintaining a feedback loop with the object in a process traditionally referred to as cutting and fitting. Think of the potter again, or a carpenter fitting timbers together understand distance using a measuring tape.

The formidable things crafted were pervaded by a distinct quality which we call craftsmanship, showing mastery of technique and embodying fitness or purpose, and trueness of material. Craftsmanship is both-- a method and a quality, the quality being essential, the method also vital, because the methodology of tools was fluctuating. From about 1750 on we have had a revolution in techniques which has arguably displaced the artisan using hand craft methods. However, the change in techniques was not necessarily the death of the craftsmen.

Sennet cautions us that we err by imagining that the medieval, or for that matter, contemporary craftsmen were entirely resistant to innovation, but their craftwork changed slowly and as the result of collective effort. These changes are paralleled in both craftsmanship and

architectural thinking, since both disciplines situate their studies in materiality and in a built world that is paced by technological advances. Zambonini makes clear in *The Theory of Making* that there are two values emerging through this parallel and joint relationship between architecture, craftsmanship, and built works. During the building process, where work to be built is set up; society is inevitably manifest in the work itself. There are two distinct values that emerge due to this occurrence. This first is referred to as "continuity[5]". The term continuity speaks of relationships in time: the extension of the design process through the building process as we trace the birth of an idea in the abstract through its two-dimensional shaping and finally to its encounter with the materials and methods of building.[6] This process draws energy from our desire to see an idea physically realized, to see our *ideas* reflected by the object. The true merits of those ideas are not only conclusively revealed at the completion of building; it is also during the process of making that the idea can be truly evaluated in the work. The process itself, however, begins with drawing for the architect. It is in this process of drawing that functional concerns bring resistance to the initial desire to express design emotion. This can happen even if the object is not physically realized; in this case the drawing appears as a survey of a hypothetical found condition rather than the documentation of some intention to build (see figure1-1). At this moment in design we are confronted with the gap between a cerebral design idea and the physical assemblage of that idea. Both sides of the split hold merit in architecture pedagogy. The former allows the student to dwell in the realm of drawing that has utopian ideals that are not in resistance to technological capacities, political correctness or budget. And the latter allows the student to draw and build in a context with societal and phenomenological resistance. The latter sensibility also serves to introduce the second value- integration. Integration suggests another kind of unity among architects and craftsmen. Integration is

fundamentally opposed to the perceived necessity for standardization and specialization. Integrated method of making denotes the coming together of trades and artisans, each capable of applying different skills, while nonetheless maintaining an understanding of the whole to which the work aspires. This notion derives from Arrigo Rudi's[7] definition of craftsmanship: knowledge of the entire process in view of its goal. As integration pertains to drawing, it is in opposition to drawing without the built materiality as the initial catalyst. Craftsmen dwell in integration. The craftsman challenges the tendency whereby drawing has only been given pre-eminence in the conceptual process, leaving to distant executors all decisions concerning how best to build the work.

In the work of Viennese architect and craftsman Walter Pichler (see figure 1-3) exemplifies the integral appropriateness of craft in architectural making and thinking. Pichler, reminiscent the skonin and bòs mason, often speaks to his neighbor's about the making of things, about the tools and machines in his shop. His process of making is central to the material and the possible technological methods of re-thinking that material. As a craftsman, Pichler celebrates his tools, which acts a mediator to mind- hand-to material. Pichler drawings continuously straddle the line of envisioned sculpture and architecture see figure (1-3).

**In Between the Pedagogies of Drawing and Building**

The roles of drawing and building in architecture may cause the architectural educator, theorist and critic to sound off in different discourses about their position on these tools. The distance between architectural drawing and building has always been opaque and ambiguous.[8] Alberto Perez Gomez concluded that much of the discussion faced by contemporary architects and educators seems to be linked to the questions: Is drawing a tool of *reduction*? (or) Is drawing the *embodiment* of architecture? The *reduction* theory of drawing (drawing to produce a neutral collection of documents for a building's construction) has enormous implications. This

suggests that the architect creates working drawings or precise detail designs only to instruct a carpenter on a series of building operations. This theory places the architect with distance as it pertains to the involvement in the *craft* of the building. The other camp of this fundamental split considers drawing itself *as* architecture- that it contains the matter of meaning. In this view the role of drawing is the embodiment of architectural ideas. The *embodiment* theory (see figure and 1-2) considered the drawing a vehicle for expressing architectural intentions: intension that are full of meaning, as poesis, the creative making. This separation of meaning in drawing in relationship to building is worth more exploration. The case for exploring this space between these two camps of thought-is to fine crucial pedagogical overlaps that may lie in between drawing and building[9]. The inquiries are: What languages pertaining to architecture pedagogy have evolved in each camp? When did this split historically occur?

Richard Fancis-Jones argued that perhaps the first sign of this fracture can be located in the work of Leon Battista Alberti. He recollects that Alberti did not rise through the guilds or trades; his interest in architecture was primarily theoretical. His famous treatise on architecture, *De Re Aedificatoria* contained no illustrations; architecture was to be thought, idealized and theorized. Alberto Perez Gomez further elaborated that Alberti was the first to distinguish between design and structure as the two constituent parts of architecture. In Alberti's *De Re Aedificatoria* he insisted that design resided "in a right and exact adapting and joining together the lines and angles which compose and form the face of the building". The role of design was "to appoint to the edifice and all its parts their proper places, determinate number, just proportions and beautiful order."[10] Alberti initiated the belief that design was "inseparable from matter" (see figure 1-3), so that drawing was perceived as the embodiment of architectural ideas, distinct from perspectives that represented (in painting), the reality of a building"[11].

From the birth of the Renaissance to the early 18th century the Albertian sensibilities endured. Architecture in the early Renaissance was considered a liberal art- a stomping ground for intellectuals. Drawing was centered on the relationship between the human body and metaphysical space. Renaissance perspectives were drawn as an intellectual exercise that analyzed geometry and overall mathematics as they related to portions of the body. As the craftsman/builder emerged, their role was to implement the embodied drawing's analyzed geometries of spaces. The embodied meaning of the architecture was of most importance during the building process. Instead of dictating a set of instructions that were to be actualized by implementing neutral technological processes, the architect, still primarily a builder, knew that the "distance" between idea and matter, between design and construction, would be reconciled through his own involvement in building.[12] There was an inherent closeness, if not the same character, between drawer and builder—between architect and maker. It was understood by the 17th century architects that there was a split between architecture as the design of geometrical spaces and perspective drawing as a tool of visualization and imagination.[13]

Conceivably by the early 18th century the role of the renaissance drawing was re-analyzed. Drawing was seen as more experimental exercises that could be more or less precise. Perspective drawings were made sometimes with the aid of tools like grids or scales, but the drawing was evidently not perceived as a "picture" of the building, as its reduction, or as a neutral collection of information for its construction.[14] Due to the fracture of drawing and building the path was certainly open for the transformation of the builder into an efficient designer (craftsman), capable of controlling practice through prescriptive methods and precise drawings. But the transformation was a slow process. It took many decades for the belief that

theory as a method, and of drawing as its tool of reduction, to come to fruition. Only modern architects after Durand have assumed such a role of drawing as primary and unquestionable.

Toward the end of the 18th century, Perez-Gomez makes clear that Gaspard Monge developed his descriptive geometry, which became a basic discipline of the *Ecole Polytechnique.* The problem of describing an object through its projections on three planes had been a concern of architects before Mange, but the invention of descriptive geometry was more than a systematization of known methods. Descriptive geometry opened the way for a functionalization of the reality of the lived world. Descriptive geometry became an effective instrument of the French school for engineering, and an absolutely essential tool of precision during the Machine Age. The original architectural *ideas* were transformed into universal projections that could then, and only then, be perceived as reductions of buildings, creating the illusion of drawing as a neutral tool that communicates unambiguous information, like scientific prose[15].

This fracture of technological dualism constructed the space between the surface and construction, between the intellectual architect who reads and the master craftsperson who makes, between the idealized image and the reality of its making. Focusing inquiry on the fundamental gap between theory and making--drawing and building will demonstrate the problematic nature of defining two opposing camps of architectural thinking. In both supposed camps, the challenge pedagogically is to create a workable marriage of theory, drawing, and making.

Alberti academically dedicated many thoughts on the notion that drawing was indeed architecture. That drawing could embody all the ideology of one's architectural concept- "inseparable from matter". However, what lacked was the hinge between the poetics of the concept and the process of making and sensing the resistance of the elements – this is inclusive

architecture. Pedagogically, inclusive architecture is an exploration that happens at different phases of the curriculum. It should not saturate the curricula at all levels. There are moments when the student should visualize, imagine, or dwell within their intuitiveness without sensing the resistance of the built nature of architecture. It is essential to have modes in the pedagogy where design thinking is fueled and meditated upon outside the built issues—in order to be able to ask questions that challenge our perception of the built realities. It is therefore not essential to understand architectural making beyond this intellectual separation of thinking and making. The issue is largely more complex than this—is it mainly about the exploitation of the interdisciplinary gaps that makes for educational opportunities unique to architecture. Inclusive architecture dwells within this gap[16]. Furthermore craftsmanship rests and links the interdisciplinary gaps between drawing and building—without the contextual breaks in architecture, craftsmanship is insignificant.

This assessment challenges the proposal that in thinking/making within architecture one should not be hermetically sealed: clearly this is a contradiction of the collective and social nature of the discipline. As an instructor, one of the most rewarding aspects of the discipline is to ask a student to take their process of clarity of an idea (which may be driven by the readings of Henry David Thoreau) and to physically assemble that idea. This is an example where architectural thinking dwells within the interdisciplinary gaps. To ask a student that question, places thinking in space where concepts are in search for a critical context to rest. At that moment the student would sense most of the resistance that architectural thinking and making dwells in. Thoreau's works are not architecture, per se, but they do describe and contextualize architectural sensibilities through written language. But architecture is not really like written language; it is not read like text. It is built, crafted, assembled and inhabited. Architecture is a

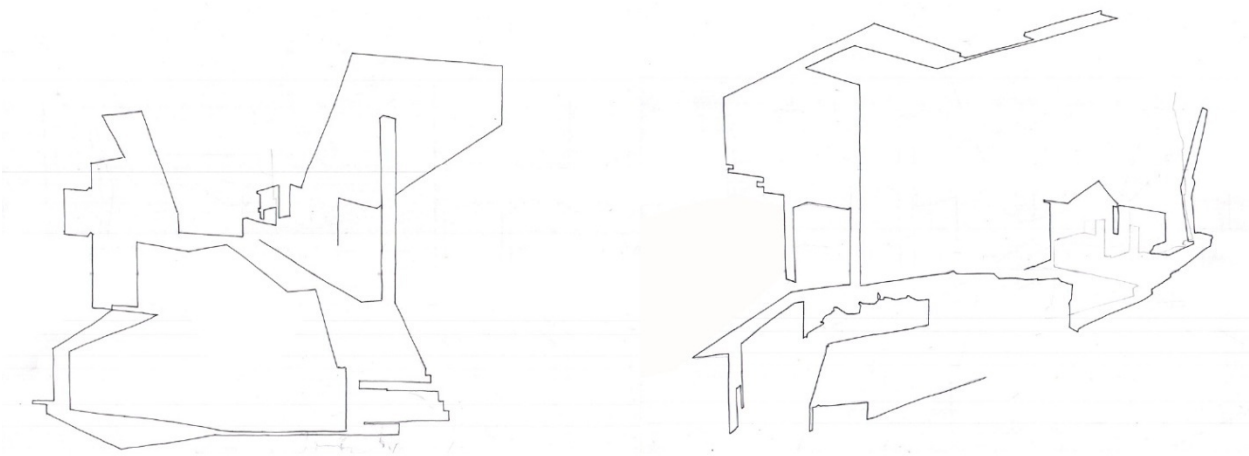
*language of making*; it is at once more direct and ambiguous: it is a language or art we inhabit. It is a language/art that accepts the resistance and ambiguity of occupied function or the limitations of construction-- apart from other arts. Architecture's conceptual forces derives from the way it frames and orients us in relation to the world, nation, city, community, home, and artifact. It is perhaps most accurately understood as the proposition of alternative realities within reality, worlds within the world.[17]

In architecture, meaning of reality are explored and postulated through the formal relations of making and the reality of its making not merely through the surfaces application of an idealized product but through the spatial organization, formal order, structure, construction, specific relation to the site and interpretation of the program. Thus the meaning in architecture does not depend on it stability, function, or efficiency of the means of its production, but the way in which all of these have been limited and subordinated or poetically transformed by purely recognized requirements. Purposefulness is therefore not a restrictive condition that comprises the art of architecture but an integral element of specific meaning. A work of architecture should not simply present a record or expression of reality but provide critical frames within which to understand our human condition. Pedagogically, as architects and educators, we identify the programmatic issues and then peel back the layers to expose or find the poetics trajectories-different from problem solving. The presence of conflict in our society should be acknowledged, together with the need for social criticism and social engagement of architecture as a critical activity.

> We shall therefore be made aware of the conditions of our lives through the construction of alternative realities within in which things are reset in a slightly different order. Architecture becomes the making of critical frames in which to understand reality, a formal means of cognitive effect, with an ethical and social purpose. (Francis-Jones 1997)

Alternative realities derive from the way craft as the architectural process frames and orient us in relationship to our surroundings. Therefore poiesis (making) in architecture is not a simplistic statement of the world's contradictions and conflict, nor is it a false reassurance of our well-being. Social contradictions should not merely be stated but critically examined and possible poetic resolutions explored. It is important to emphasis poieses in architecture not as a separate intellectual act of idealism but as specific investigations. Meaning in architecture does not come from the work's detachment from the world but from the way frames and transforms as an extension of its site and ethical interpretation of its social intention.

*The embodiment theory considered the drawing a vehicle for expressing architectural intentions: intension that are full of meaning, as poesis , the creative making. This separation of meaning in drawing in relationship to building is worth more exploration.*



Wandering Line Drawing of analysis of an imagined public space

Fall 2007 Design 3

Figure 1-1. Wandering line drawing of Urban Edges

*A perspective study for , an unfinished work by Leonardo da Vinci --- Image by Alinari Archives/CORBIS*

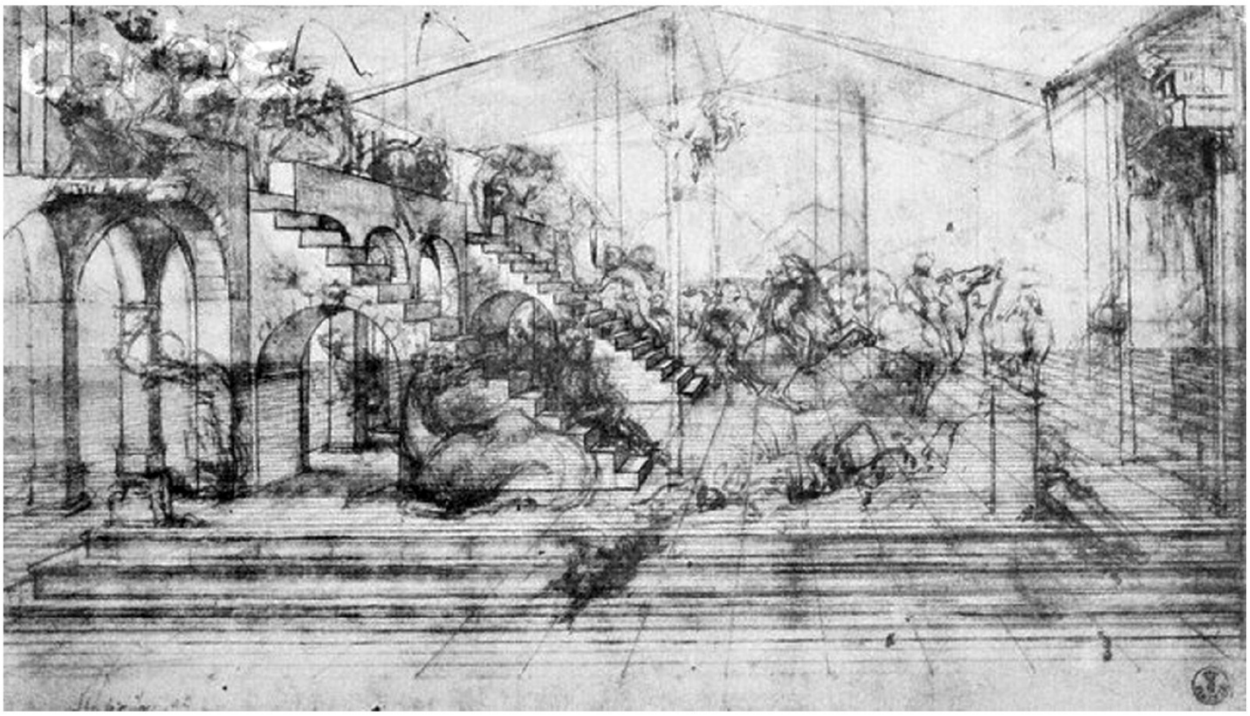


Figure 1-2. Drawing as metaphysical and physical exploration

*As integration pertains to drawing, it is in opposition to drawing without the built materiality as the initial catalyst. Craftsmen dwell in integration. The craftsman challenges the tendency whereby drawing has only been given pre-eminence in the conceptual process, leaving to distant executors all decisions concerning how best to build the work.*

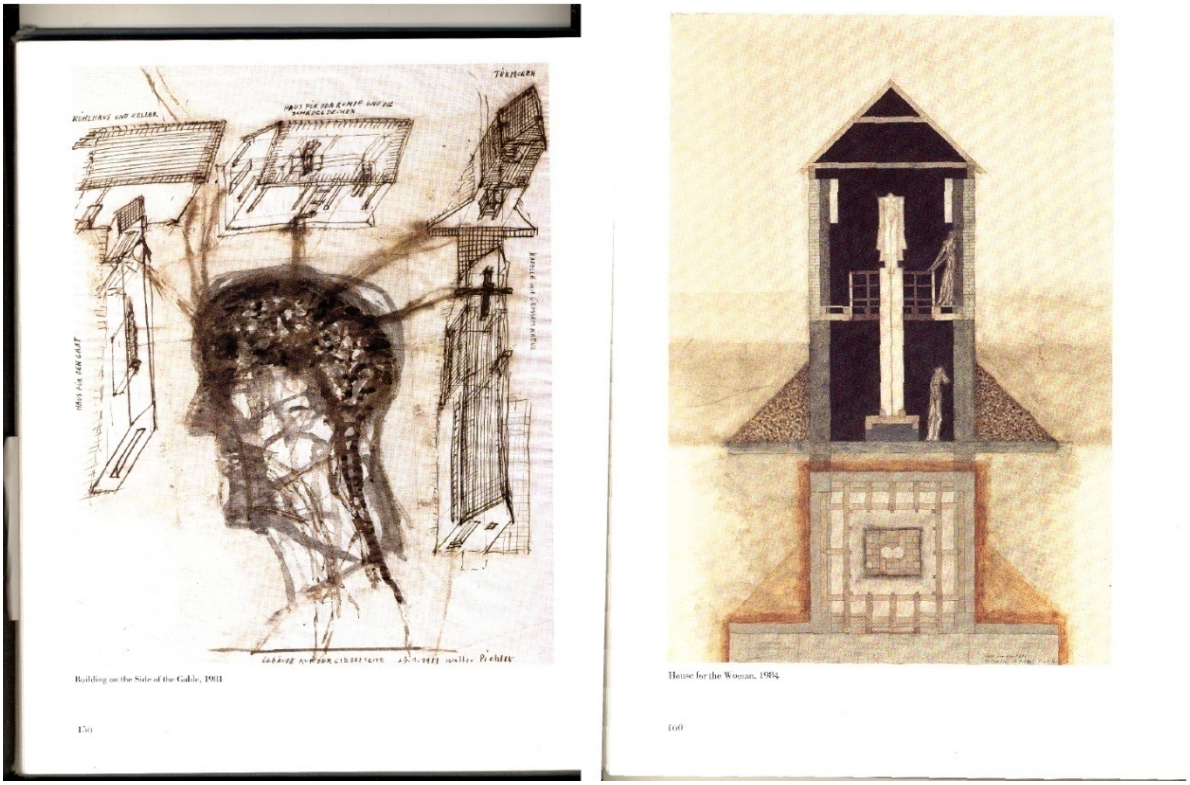



Figure 1-3. Walter Pichler

Is drawing a tool of reduction? (or) Is drawing the embodiment of architecture?

Wandering Line Drawing of analysis of a public space

Fall 2007 Design 3

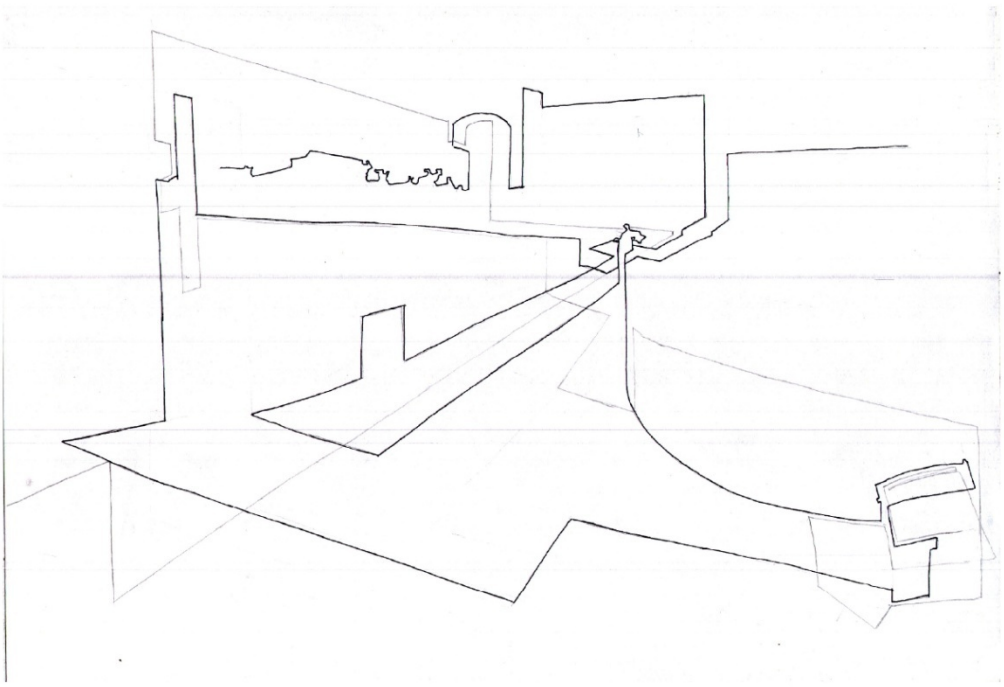


Figure 1-4. Wandering line drawing of an envisioned public space

## Notes

[1] R. Sennett. *The Craftsman.* New Haven and London: Yale University Press, 2008.

[2] Truly a craftsman has embodied knowledge already; however, his 'experience' is something quite unique and separate from human consciousness, though human consciousness is built up out of his primary experiences. For the moment, it is best to think of experience as primitive feeling, or awareness with subjectivity and value, which may or may not reach consciousness. In sum, prehension parallels a craftsman's pre-imagination. Whitehead, William Morgan and Alfred North. "The Organization of a Story and a Tale." (University of Illinois Press on behalf of American Folklore Society) 58, no. 229 (1945).

[3] R. Sennett. *The Craftsman.* New Haven and London: Yale University Press, 2008.

[4] G. Zambonini. "Notes for a theory of making in a Time of Necessity." *Perspecta, Vol.24*, 1988: 3-23.

[5] G. Zambonini. "Notes for a theory of making in a Time of Necessity." *Perspecta, Vol.24*, 1988: 3-23.

[6] Ibid

[7] Rudi was an architect and close collaborator with Carlos Scarpa, He and Scarpa were commissioned to design the Banca di Verona. This was a collaborative project that took over five years to complete. This five year period was a continuous collective craftsmanship endeavor.

[8] See Perez-Gomez, Alberto. "Architecture as Drawing." *Journal for Architectural Education*, Winter 1982: 2-7.

[9] To possibly frame the role of drawing and building as seen through the craftsman's role- role that rest in between this fracture.

[10] See Alberti, Leone Battisa De Re Aadificatiria Tirantl. *De Re Aadificatiria Tirantl.* London: Tirantl, 1955.

[11] Ibid

[12] Ibid

[13]

[14] The evolution of the renaissance drawing

[15] M. Frascari "The Particolareggiamento in the Narration of Architecture." *Journal of Architectural Education*, 1989.

[16] Inclusive architecture and the role of the craftsman are the identical.

[17] See Francis-Jones, Richard. "Architecture is not Language- A note on Representation." *UME Magazine*, 1997, UME3 ed.

# CHAPTER 2
# COLLECTIVE MAKING IN THE PEDAGOGIC FRINGE

A proper example of how a work of architecture frames a people and their ethical interpretations can be seen in Haiti's immeasurable Citadelle Laferrière, begun in 1804, when General Jean Jacques Dessalines pronounced the independence of the former French colony of Santo-Domingo and construction continued sporadically until the arrival of General Henry Christophe. Dessalines simply chose the site for its views on top of a three thousand feet Bonnet a L'Eveque mountain (see figure 2-3). Henry Christophe later was commander of the native armies of the North and victorious hero of the campaign against Napoleon's expeditionary army initiated idea for the structure. As soon as he was made king, Henry Christophe also commissioned a Haitian architect, Henri Barre and ordered construction to commence. Any healthy men and qualified bricklayers of the Cap-Haitian area, including many soldiers, were recruited for this project. The workers carried tons of material and 275 cast-iron and bronze guns of various calibers to the top of the mountain through narrow, rocky and treacherous paths skirting cliffs where one precarious step meant instant death. Although there was an architect on the project he was more of an overseer, the project's craft and overall poetics was made by the masses.

More than 500,000 tons of construction materials were needed to build this sublime fortress. The fort had an irregular quadrilateral shape and contains a colossal rounded bastion and a long triangular spur extending into the lower section. The interior of the Citadel is an incredible complex of galleries, halls, rooms, powder magazines, barracks, supply rooms, prison cells and water reservoirs. Christophe had planned to house a barracks of fifteen hundred men, capable of enduring an attack for three years with enough arms and provisions stored in rooms three thousand meters high, with walls 3 meters thick. By 1817, Henry Christophe, the former slave,

who had become king achieved his dream of constructing a fortress. The Citadelle Laferrière, now is an architecturally tremendous source of pride and liberty to Haitians, but came at a great price of twenty thousand lives lost during construction. Moreover the craftsmanship came about with many hands and has generated a sense of ownership for Haitians for over two hundred years. The concept of many hands in a work shouldn't be taken lightly. The collective making of this structure helped cross critical boundaries of early Haitian leadership and lay men citizens. There was a grass roots sense of democracy registered through a building. After the Haiti revolution, the Citadelle as a mark was a sense of power and Haitian communal advancement. Today, as a ruin the Citadelle registers it process of making as a monument to collective making. The monumental nature of the Citadelle reads as architecture defined collective spirit inherent in it structure. This spirit conveys a timeless quality that seems like it cannot be masked or changed.

**Politics of making:** The historical collective making examples are situated in the fringes of architectural pedagogy. The pedagogic fringe acts as context that offers the opportunity for students to engage the multiple references that constitute different cultural *margins*, experiences, languages, and craftsmanship. This means educating students not only to read these *margins* critically but also to learn the limits of such *margins*, including the ones they use to construct their own narratives and histories. Partiality becomes, in this case, the basis for recognizing the limits built into all discourses and necessitates taking a critical view of authority. Architecture students must engage knowledge as border-crossers, as persons moving in and out of borders constructed around coordinates of difference and power. These are not only physical borders; they are also cultural borders historically constructed and socially organized within rules and regulations that limit and enable particular identities, individual capacities, and social forms. In this case, students cross over into borders of making and meaning, maps of knowledge, social

relations, and values that are increasingly being negotiated and rewritten as the policies and regulations that organize them become destabilized and reshaped. The pedagogic fringe de-centers as it remaps. The terrain of learning becomes inextricably linked to the shifting parameters of place, identity, history, and power. But there is lack clarity in the discourse of what architectural making, within the craft framework, is as it relates to a cultural awareness. The definition of architecture cannot be grasped through either a narrow-minded view of recent architectural works or an obsession, method or objectivity. History shows that architecture has been a profound, "interdisciplinary" form of knowledge, allowing humanity to dwell on the earth.[1]

Making as architecture, regardless of its ever- changing and in fluidity of discourse, historically satisfied the undertaking of providing an occupied/material form of poetics for the space analyzed. The scale of the space analyzed is crucial. In practice the scale of work ranges for institutional to small exhibitions. In larger projects in the office, project delivery may overshadow the capabilities of keeping a constant poetic. With what is seen in practice, one should rethink the scale of craft/making within academia. In academia scale of project can work as personal in house studies to smaller projects that reach the surrounding community. This is reminiscent of the roles of shokunin to Japanese and the bòs mason to Haitian society. Today discourse on service learning has emerged as way to revive the awareness of this connection of academic studies reaching communities. Service Learning as a pedagogy appears to be quite promising. Service learning has a pedagogic framework where learning and reflecting are combined with an academic atmosphere that provides meaningful making through one’s community as a technical exercise. Theoretically these principles are influenced by the historical understanding of craftsmanship. In considering craft’s role in architecture pedagogy it is focal

that the exploration is not simply following the vocational mode. Traditionally, service learning has merged into vocational pedagogies, which may not foster critical educational thinking, but rather focus on job-specific skills, and as such are devoted to training, not  a lengthier process of education. In architectural pedagogy it would be tactless to prepare students to simply machines that are ready to plug in the office. It is important to stimulate the inherent ideology and knowledge of the student for him or her to understand possibilities of the poetic craftsmanship within the community. Service learning as a craftsmanship practice has to be tailored uniquely for architectural education. Architecture is not simply the embodiment of information or trade; it is the embodiment of making with meaning.

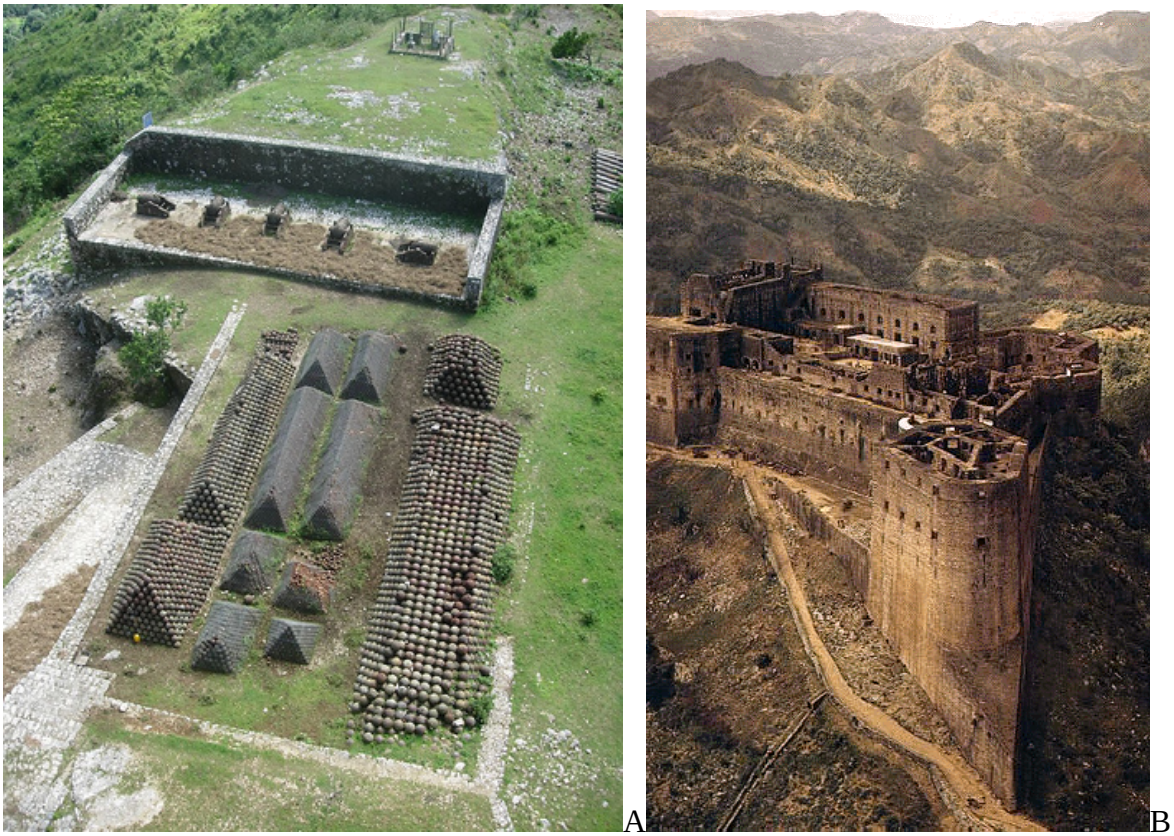



Figure 2-1.  Citadelle Laferrière A) Landscape of artillery. B) Citadelle sited on Bonnet a L'Eveque mountain

## Making in a Specific Context

> Any activity of production involves the transformation of matter for a purpose clearly defined somewhere between society and the individual. The maker and the object to be created are tied together by an intimate relationship which does not disappear at the conclusion of the production process. This relationship can be described in different ways, in each case inseparably connected to the nature of the production process itself. (Zambonini-1988)

To investigate more the rethinking of service learning in the architecture pedagogical framework, my mentor Dr. Charlie Hailey and I developed a design-build workshop at the University of Florida. This was a seminar of eleven graduate students from the School of Architecture and the project was in partnership with the Boys and Girls Club's Woodland Part Unit in East Gainesville. The objectives were to 1) understand and develop a multi-disciplinary approach to frame a design-build work that would focus on the process of making within a specific community situation, 2) to set out pedagogically to foster an ability to select, adapt, and apply methodologies and theoretical approaches related to design-build activity, and 3) to pursue research methods and design process that reduce disconnections between design and what is built.

The Seminar, as a form of service learning, searched for a new reading of design build in order to challenge the arguments of austere acts of production. The work was set out to be socially conscience and architecturally responsible. The Boys and Girls Club children (age 5 through 17) simply desired an outdoor space that would alleviate the lack of sufficient space in their facility. This was a simple programmatic request, but pedagogically it was important to charge the graduate students to find and unveil the hidden poetics of that request while working hands-on with the children of the club. Zambonini, in the above quote, offers the notion of "transformation of matter." In these terms there are sensible underpinnings of the overall design-build seminar. For instance the way the world is experienced is through action (transformation),

and through action we change it. Change implies creation or design (poetic making connotes both) even at the level of everyday actions-- passive or aggressive.

In this project, the site was four miles east of the University. The transformation (the search for the projects poetics) began first at two scales, the university and the community. The workshop was appropriately titled *Reflective Building: Overcoming Boundaries between University and Community through Design-Build Pedagogy.* Overcoming boundaries is fitting because it is clear that cultural boundaries shape the way we conceptualize and maneuver. The process by which some cultural boundaries emerge more dominant than others is ambiguous. However cultural boundaries have a logic, and in our daily lives we tend to treat this logic as if it is inherent in the entities themselves. We join some things together and split them from others along conceptual lines that seem both natural and inevitable. But carving the world into discrete mental entities does not entail the recognition of natural distinctions so much as a process of interpretation. The particular features that are highlighted or ignored in our cultural boundaries reflect in part the uses to which they are put, distinguishing features that are socially relevant from those that do not matter.

The two boundaries that were examined in the design-build seminar were those of the University and those of the Boys and Girls Club. The University of Florida's boundaries of micro urban sensibilities of brick edifices may seem to operate as a pre-professional hub. The professional hub critique is a reading of how one is inducted into a community of thinkers, makers, writers, and researchers for four to eight years, but then leave to other cities where professional practice may have seemed more promising. The University at moments, depending on the cognitive boundary, is defined as the city of Gainesville. This conceptual basis, although far from truth, through common mental practice can become concretized. Moreover, the eastside

of Gainesville may not even be in existence within the conceptual boundaries of a University student. The boundaries of the Boys and Girls club are framed by a series of understood imaginary walls of its site. The Club is located in the Woodland Park area in Southeast Gainesville and is comparable to the University-- as a city within a city. The site is a network of governmentally subsidized homes and is buffered by as series of critical landmarks: a quiet cemetery, a desolate gas station and a local bicycle trail. The materiality of the subdivision are redundant brick, beautiful oak trees, and power lines (which hold culture with the occasional shoe hung by the string). The upkeep of Woodland Park serves as an opposition to a lower income community where roads would be unkempt and lights would not be functional. Instead the space has a vibrancy and disposition for growth, and community involvement.

Communally, the club provides approximately one hundred predominantly African American children with a place to spend time after school and as a goal it seeks to enhance the educational development of each child into responsible adults. The club is a space for community leadership meetings, social gatherings, and a place of leisure. The Boys and Girls Club is thus seen as a catalyst for proposing community projects in the neighborhood (see figure 2.1).

As we set the design-build project, my mentor, and I understood the possible change trajectories that the graduate students would sense in regards to University/community boundaries. Professor bell hooks states it appropriately in her book *Teaching to Transgress* that "education is the practice of freedom" a place where cultural boundaries can be challenged and rethought. With the same awareness we imagined that through collective making in a design-build project the gaps between University and community could be filled.

To propose a graduate seminar where eleven students from the school of architecture would relocate their studio to a site on the Eastside seemed fitting for the "anomaly" that architectural education presents. Donald Schön elaborates on the situation of the architectural design studio within the university:

> The architectural design studio is an anomaly in the contemporary research university. Its underlying theories of professional knowledge and teaching are at odds with those of other university based professional schools. This represents an opportunity: the studio has much to teach other professional schools on the basis of its traditions of education through coaching and learning-by-doing.(Schon)

The in-house architecture design studio at the University of Florida is classically a form of public learning. In this sense, the architectural studio is a practicum, a virtual world that represents the real world of [design] practice but is relatively free of its pressure, distractions, and risks.[2] In an in-house design studio, the students learn by making at multiple scales, but rarely full scale or 1:1. Within the ideal public learning condition of the studio the most important agenda is transforming or rethinking the idea of *conversation*. Unlike the in-house studio where conversation is held in a framework of student to colleagues- to professor- to in-house architecture community, the offsite design build project adds another layer; that of the Woodland Park Community. The in-house studio is a space to foster critical and sometimes hermetic thinking by design students. The pedagogy of the studio stems from an inquiry-based approach that can prepare students to function effectively in different contexts. The exercises that are scrutinized and massaged within the in-house studio space are preparations for the student to function effectively in an architectural design discipline. But the setting for this learning is internal within the School of Architecture. Design build studio asks student to leave a familiar setting, i.e. the walls of the architecture building, and to address design and making in the community—creating a learning atmosphere that is truly public.

Figure 2-2. Image of Boys and Girls Club's Woodland Park site for community garden (looking north)

Table 2-1. Design Build Workshop Project Time-line

| Event | Dates | Pedagogical objectives |
|---|---|---|
| Design Fair | Jan 17 2008 | The design charrette, pedagogically, was an innovative way to engage the community simply through the activities of making |
| Making as seminar | Tuesdays | In this context, the seminar sought to understand how "reflective building" connects thinking, making, and sustaining. |
| Practicum with kids | Thursdays | |

## Exchange through Building

The Club's need for additional outdoor space became more specifically define as a need for an outdoor classroom and a community garden. The questions of: what to make? or how to begin? needed to be answered. Pedagogically, in this project we were interested in deciding what to build and then actually building set the problem and in the process reframe both the "practice situation of academic learning and the community situation if the BGC's own educational mission. Too often universities venture into communities like a bull in a china shop[3]. It is problematic for a university posture themselves as "know-it-alls," having all the expertise that communities needs and hell-bent on applying it with little or no regard for the history and culture of communities. This is a recipe for a calamitous attempt to overcome boundaries. To not fall into a similar situation, the process started within a Design Fair. The Design Fair overall was tool

for the university students to introduce themselves to the BGC community. Without placing too much importance with verbal inaugurations, the design fair allowed for a potent (and sometimes) non verbal discourse of making with the hand, imagination, and visualization. The Design drew from the sensibilities of the design charrette. The design charrette, pedagogically, was an innovative way to engage the community simply through the activities of making. Using charrette as a catalyst (the term originated from 19th century Ecoles De Beaux Arts  19th century where proctors circulated a cart or charrette while students frantically their work) the graduate students understood the Design fair to be a series of carnivalesque stations for interactive learning, combination of play, craft booths, and explorations of different materiality.

The process began from as series of five charettes. One station was the clay station, where students modeled representational clay model of the project's site—they imagined how the space could be structure(see figure 2-3).

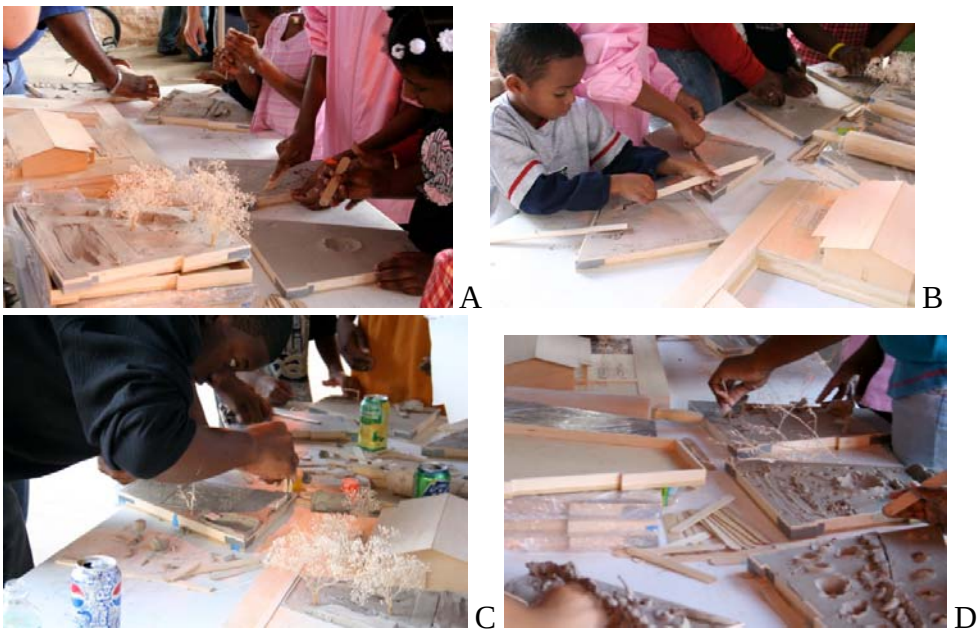



Figure 2-3.  Series of images from the Clay station. A) University students constructed a site model of the BGC property and cut out pieces of the site model where the outdoor classroom and community garden would be placed B) the process asks the student to visualize and imagine C) BGC member focused on personal design D)  the clay trays served as a memory of making

 A  B

Figure 2-4. Series of images from the Brick-making station. A) this is a hands-on activity of making concrete blocks B) children mixing the concrete block).

 A  B

Figure 2-5. Series of images from the Mapping station. A) club member mapping familiar routes in his neighborhood B)two club member mapping from memory

 A  B

Figure 2-6. Series of images from the virtual station. A) exploring Google Earth B) Club director, volunteer, and graduate student explore in the virtual station.).


Figure 2-7. Series of images from the scavenger station. A) collection of materials on-site B)preparation of containers C) containers filled with the collections D) Containers assembled

**Practicum:** This portion of the seminar explored the applicability of Donald Schön's notion of reflective practice for student teachers in practicum settings. The practicum was guided by three questions: What do student teachers reflect upon?, What precipitates reflection?, What factors enhance or constrain reflection?, and How can this study open up the dialog between university and community. To understand how these university-community boundaries might be overcome, we proposed the reflective *building* practicum. The graduate student were asked to develop hands- on learning experiences to engage the club members, to discover what to build, and then how collaboratively to build the outdoor space in the community grounds.

Schön's conception of reflective practice was chosen because his work embodies this view of knowledge; specifically, for Schön, thought is embedded in action, reflective practice is grounded in the immediacy of the action setting, and reflective practitioners engage in a process

of problem setting as opposed to technical problem solving. Along the lines of the craft argument, problem setting in the seminar was linked to making.

The reflective practicum placed the graduate students in the position of teacher and the children of the Boys and Girls club as students. This setting allowed the children of club to have a sense of the design process through measuring, drawing, cutting economically or simply nailing pieces of lumber. Through the process of making, at different scales, the graduate students would construct activities where the children would make small containers to hold seeds and make small benches for seating in the community garden.

The practicum as a tool allowed for a sense of ownership for the children of the Boys and Girls Club. The twelve week process challenged the way the graduate students were accustomed to learning. The pedagogical situation called for the graduate students to explain their thoughts and design rational to the children of the club while making, and placed the graduate student in a constant public exchange. Also the work shop, as a design-build exploration, would create non-routine problems for the graduate students. But, Schön asked, "What happens when practitioners are faced with *non-routine* problems?"

Non-routine situations are at least partly indeterminate, and are not immediately amenable to technical solution. From his observations, Schön postulated that when practitioners are confronted with problematic situations—situations that cannot be dealt with by the application of generalized techniques--they engage in a very different process, that of *problem setting.* Schön defines problem setting as the process in which "we name the things to which we attend and frame the context in which we will attend to them". [4]When confronted by non-routine problems, skilled craftsman/practitioners learn to conduct and frame experiments in which they impose a kind of coherence on "messy" situations. They come to new understandings of situations and

new possibilities for action through a spiraling process of framing and reframing. Through the effects of a particular action, both intended and unintended, the situation "talks back." This conversation between the practitioner and setting provides the data which may then lead to new meanings, further reframing, and plans for future action.

As this reflection-and-action frame work developed the project gave true ownership to the children of the Boys and Girls Club—because as participants they were able to frame and reframe critical questions during the process of build the community garden.

**Pedagogy as a Line**

Addressing a community-based project is not merely identifying a problem, concentrating a solution and identifying site qualifications. The process ought to take a pedagogical position that goes beyond the formal of austere function or simple problem solving. The poetics of this pedagogical position is the breath of our discipline – however the method in which we communicate our ideas to the community is the core of service learning. Paul Klee's musings on the quality of a line "moving freely" references the pedagogical processes inherent to a formal university- community partnership. As participants in the practicum, professors, students, and community alike are participating in creating a path. The directionality and outcomes of that path are not entirely predetermined- this is the beauty. The way education was perceived in the practicum, the manner graduate students received input from the children of the Boys and Girls club, the fashion in which input was implemented or reframed-- is simply a line. The pedagogical composition of this line is formed by events (Design fair as an initiator and the practicum as continuous dialog), each of which affect its consistency, directionality, and identity. As such, a formal architectural education merits a discussion, analysis, and an exploration of how the path of the "line "is drawn.

How this line is interpreted by both makers (university and community) is essential. Meaning, during collective making, has to go beyond the hermetic understanding of an individual to a public dialog that is positioned for the purpose of reflection. Meaning, we must remember is given in perception: it is not a product of association. Phonological studies have shown that meaning is not primarily or solely an intellectual construct.[5] Architecture is an order that addresses our ambiguous, finite, human reality; it is not merely a vehicle for scientific truths. It more lies in the experience. The experience through making framed and sustained this pedagogical line's thickness and length—or importance and longevity.

## Notes

[1] See Perez-Gomez, Alberto. "Architecture as Embodied Knowledge." *Journal of Architectural Education*, 1984: 57-58.

[2] See Schon, Donald. "Toward a Marriage of Artistry and Applied Science in the Architectural Design Studio." *Journal of Archiectural Education*, 1984: 4-10.

[3] See Wilson, David. "Key Features Of Successful University-Community Partnerships."

[4] See Schon, Donald. *The reflective practioner: How professionals think in action.* New York: Basic Books, 1983.

[5] See Perez-Gomez, Alberto. "Architecture as Embodied Knowledge." *Journal of Architectural Education*, 1984: 57-58.

# CHAPTER 3
# MAKE AND REFLECT

## Scale of Making

The project called for a certain type of making that allow both the graduate students and the members to visualize at full scale, 1:1. Making and craft in a qualitative discipline research are vitally related to each other in that the satisfaction of the demands of each is closely dependent on an honest engagement with the local contingencies of the design process, which includes a willingness to keep oneself and one's investigative agenda open to transformation by these contingencies. Similarly, making and craft in design pedagogy compels the architectural educator to provide considerable epistemological space to one's explorations. Zamboni speaks specifically about the process:

> The first burden concerns the identification of materials and tools used in the process of transformation. The moral component must be present here because the most significant properties can only be discovered through a methodical investigation measure in years of pursuit. The development of this knowledge requires observation, intuition and perseverance-attributes acquired in varying degrees by way of apprenticeship and inherent sensitivity (Zambonini 1988)

There are two aspects in this transformation (material and conceptual) process[1]. First, there is exploration and discovery, and secondly there is the synthesis and making. The final artifact is a product of both of these investigations.

The reflection first for the graduate students began with function. The program loosely called for a community garden and an outdoor classroom. These initiated that there would be an itemized list of elements, an organization of parts. But the function doesn't simply define the architectural dilemma. How will the function generate form? Through craftsmanship with embodied integral material, one may find through investigation, that one element dominates all others, or possibility that all parts should be equally spaced. As the graduate students explored the possible diagrams by drawing directly with the 2x4 pieces of wood-- form begins to appear

(see figure3-1). The intergraded form that is generated from working directly with the site and transforming the material give the initial sense of a poetic.

The poetic is also an extension of our interpretation of the site. Often times the position of the site is seen as a space for problem solving or eliminating resistance. Too often the resistances of slope, approach, orientation become burdens to be overcome. The site characteristic shouldn't be considered a blank canvas to place functional needs, but instead seen as another form of integration. The site resistance should be fully digested along with the functional concerns- so that most subtle implications of the sit characteristics are reflected in the final product. Reminiscent of the pedagogical goals of the design-build projects in Ritoque, Chile's *Open City*[2]. Extended the poetics is embracing an empty landscape, or a distorted piece of land, or the interstitial space between two buildings.


Figure 3-1. Wood as a drawing material

Figure 3-2. Decking extend towards planters

**The Hand, Drawing and the Artificer**

> … the hand must exhibit and reveal the inherent nature of individuality as regards its fate, is easily seen from the fact that after the organ of speech it is the hand most of all by which a man actualizes and manifest himself. It is the animated artificer of his fortune; we must say of the hand that it is what man does, for in it as the effective organ of his self fulfillment he is there present as the animating soul, and since he is ultimately and originally his own fate, the hand will thus express the innate, inherent nature.(Zambonini)

The hand is the origin of making. Walter Benjamin's account of craft practice[3] is the hand that feels and marks its objects; authentic knowledge of the world is envisioned as a "grasping hold" of the world. The craftsmanship of the hand's non verbal intelligences links directly with the haptic signs of making. A historical example, towards the end of the nineteenth century,

American brick makers made earnest attempts to produce brick having more even color, more precise edge, and greater density than those resulting from the traditional methods of manufacture. Throughout the Colonial period the wooden molds for handmade brick were prepared to receive the clay in one of two ways: sand molding, i.e., the dusting of the mold with fine sand, or slop molding (sometimes called water struck), i.e., dipping the mold in water. Either process had to be undertaken in order to prevent the damp clay from sticking to the sides of the mold. However, neither process resulted in a very precise product. In each case the fold layers of the clay--the curved striations resulting from the gathering and folding of a lump of clay by hand and throwing it into the mold--were readily apparent. In the case of sand molding the brick inevitably had a granular surface. Because relatively damp clay was used for handmade brick, shrinkage would occur in the firing resulting in bricks of uneven size and edge; mortar joints thus had to be sufficiently wide to compensate for these irregularities. The lined or grapevine joint was widely used to make these wide, uneven joints appear more straight from a distance.
The consequence of all these factors was a brick pattern of less than mathematical precision. The texture resulting from these irregularities is widely appreciated today. Although this may be a simple aesthetic preference there is an inherent predisposition for hand crafted process. The hand process inherently carries meaning. The transformation of a material to something else is the closest we get to being a creator.

The hand as a source of craft is beginning of the creative landscape. Craft brings an inherent closeness to the maker—an appreciation.


Figure 3-3. The hand as an artificer. A) graduate students working alongside the Boys and Girls Club members, B) measuring a floor joist, C) to BGC member constructing the wall to the classroom D) Graduate student and members of BGC constructing a container for the seedlings.

## Notes

[1] Zambonini, Guiseppe. "Notes for a theory of making in a Time of Necessity." *Perspecta, Vol.24*, 1988: 3-23.

[2] Pendleton-Jullian, Ann M. *Road That Is Not a Road the Open City, Ritoque Chile.* Cambridge: MIT Press, 1996.

[3]Leslie, Esther. "Walter Benjamin: Traces of Craft." *Journal of Design History*, 1998: 9.

# CHAPTER 4
# CONCLUSION: PRODUCT DOES NOT EQUAL PROCESS

## Rethinking Design Build

In the spirit of rethinking service learning, the workshop provided a forum to rethink design-build in a pedagogical, community-oriented context. The work shop attention to collective making challenged the critique that design-build takes a great deal of time.

Time is the critic of all things[1]. A statement that is poetically beautiful and also problematically acidic. In practice with American colloquialism –let's start with the bad news. The industrial revolution was the only *social* movement that was fueled by technology. Anthropologists are in amazement to have witness a social/technological movement that was outside issue of religion, class status and race. The Revolution did bring new roads and canals and in turn encouraged trade expansion. It also nurtured the development of new iron making techniques and increased use of refined coal, however, the promise of the industrial revolution- that pre-manufactured, standardized building design solutions would allow maximum research and invention - has not been realized[2]. Standardization did not bring significant quality, only higher profit, and the processes of standardization result in both limited choice and a built-in obsolescence. Standardization only answered the partially answered the call for production speed, however it squandered quality. Zambonini mentions that standardization is not "directed to improve quality through greater initial investment and a subsequent capitalization on the experience gained by a constant application, the [standardization] only reveal the shortcuts in the standardizing process." The Bauhaus, as an institution provided the same argument. Hence, it was appropriate for Paul Klee to state: "For quality to become a universal goal, it must be projected from the individual artist-creator to all mankind. It may then be shared and become a common patrimony." Quality permeates form and in form each one of the relationships which

give it structure tends to reaffirm and reinforce the single idea which form embodies.[3] Quality, purpose, and time are only fragments of making, and cannot be divvied to certain percentages of a hierarchal role. The shortcoming of standardization was the push for decreasing time-the need for speed, and the lack of attention to quality and true purpose.

**Time is relative:** Knowing that the process of making takes *time* does not help us understand what is being done, where, how, who, and with what. As one would be remiss to dismiss significant work because it is of another time, neither does one understand a particular work only through time. Endeavor is not justified by knowing that we endeavor in time. When emphasis is shifted from the thing itself (the work) to time, one loses grasp of what is at hand, which is experience. Experience, in this context, is that which teaches, qualifies, and embraces.[4] Time is a constituent factor in the conception and making of a work, but it is relative. The making of a work is tied to other factors also: intention, intuition, materiality, and process. These factors must exist for the realization of any creative work at any time.

Within the process of making, the constituent factors that allow for the realization of a work are not linear in time or nature, but are accumulative. This accumulated experience is very much an individual reality, and it creates a position of imagining, knowing, questioning, and reason from which poetic making can proceed.

**Integration theory:** The revealing of intention and meaning of a given work is dependent on that work's materiality and on the craftsman relationship to the work. These factors may open the work to the craftsman and afford the craftsman a relationship with its meaning or they may-not, whether the work is of our own time or of the past.

To think of time as linear or as a series of discrete frames is to address only the manufacturing and reproduction of a work and not its meaning. The revelatory properties of

creative work are not tied to time, but to the integral relationship of purpose and material embodiment. When these properties are inherent in a work they ensure the presence of qualities that amplify the work and reveal its meaning and nuance; these, in turn suggest the power and vision contained. As this occurs we begin to see that whatever the work, whenever it was made, wherever it exists, its present voice in the world is as loud as it was when first made. The present evaluates the past by measuring the meaning works have, in and of themselves.

Given this, we can see that linear classification of creative work belongs outside the realm of actually creating or even fully experiencing a work. The appreciation of works is not reserved for those of the time and circumstances of its production. Works of significance tend to transcend time and circumstance as they perpetuate themselves through stance. They place themselves continually in the present with the inquirer: our experience of works of architecture, art, and literature proves this point repeatedly. The fundamental relationship of idea to material and form is shown to be contained in the purpose of the work.

It is necessary that history be seen as part of an ongoing reality that cannot be isolated or fractured by a linear structure. The evolving meaning that results in the making of a work is part of that work's viability; the work is historically connected to its own making not by time but by meaning. It is of more interest the work's inherent qualities and stance, rather than by its relationship to historical.

## Craft as Possibility

Possible pedagogical readings, sometimes a vital part of the work, show *possibility* to be a conceptual and process-oriented idea that can be inherent in a student’s intuitive reality. This can become a way of working and can convey new awareness of the complexities of process and result. It is appropriate then to suppose that *timelessness* is an important quality in a work's materiality and stance. It ensures that the work will live beyond the moment. Realizations that

result from this are, by the fact of their relationship to meaning, important. These realizations about time and timelessness can also affect the point of view of the craftsman in profound ways. Craftsmen reach these realizations only then external facts dislodge them from the work contemplated. The necessary conditions for creative work are not only reached by speculation, as speculation is tied to two different types of knowledge and the need to locate oneself in a particular way. These conditions are realized, rather, within a framework of intuition, testing, intention, and fact that qualify the path and process of a work's realization. This speaks in a general way to the human needs to produce and to inquire as means of surviving and redeeming ourselves for living.

**Collective making:** Inquiry that is arranged in a fixed, temporal sequence presupposes a goal that can be limited by and, in some instances, dislocated from what is inherently possible. The power of creative work is generated by the sharing of experience, in spite of the limits and boundaries of time, language, or social status. The beauty of making overcomes the obvious problem of differences in time, place, and familiarity. The selective gathering and shaping of material is a condition of craftsman purpose. This condition, when present, allows a work to be experienced, and therefore inhabited. It enables a richness to be revealed materially and allows the inner inhabitation of the individual maker to be manifest in the society-the world. This implies that the actual is affected or altered through human intention and structuring. Process is thus preceded by the meaning that conditions give to the maker.

**Embodiment theory:** The compounding of intention and intuition with actual material gives a holistic richness to a work. The integral/embodied relationship of maker to work is important when the maker is willing to accept the divestment of self. The objectivity sought is thus related to reflection. Reflection[5] allows the maker to recognize value in each part of the

process, and this recognition is crucial to the activity of inquiry. Inquiry is the aspect of making that is not a mere establishing and re-establishing what has or will transpire (d).

Creative works function in society not because of the society. They represent necessary individual extensions and propositions. When their composite meanings are commensurate with their urgency, they then become extensions of their specific categories. It is also true, however. That recognizing them within a category does not enhance their viability as individual extensions. Their stance is the factor that must substantiate their meaning. When this stance is realized in work and is sound, it becomes the point of purpose in dimension. Dimension, as such, can be practical as well as metaphorical and spiritual. Dimension is, to this point of purpose, a cross-boundary element that enhances the evidence of intention, endeavor, and diversity within the work. It is important that inherent differences be appreciated in order to grasp the full meaning of *possibility* in the society, whether actual or contextual. Possibility is an aspect of imagination and inquiry that is a necessary condition in the continuum of creative work.

**Complacency in value:** Simple aesthetic preference is an ever-present problem in the understanding of a particular work. It is a mere fragment of what is really involved and, because of its superficiality, can lock one outside of understanding. Preference does not declare much beyond its limited system. It is related to individual cultural, or class conditions, and cannot aptly address meaning. The material aspects of a work are part of its intuitive, conceptual, and formal making. This collective relationship of thought to material is an essential mechanism by which options are given the status of facts. It allows one to address the process of making in a special way. It is within this relationship that possibility can become more than a notion or option: it becomes a fact. Making provides the fullest opportunity for experiencing the world. Its reality is one of continuing surprise and possibility. Through the activity of making the world is a place

for one's inner being-- its existence and import-- to materialize as matter. Making is, therefore, a process by which a craftsman understand what is needed and appreciated, and why. When there is a substantive relationship between intention and making, purpose is placed forward for new creations to contemplate and extend. In that we are locked to making through experience rather than through time, the need to make with and through history is a common bond. In the realm of human experience, there is opportunity for possibility--individual and collective, which renews and extends work in its many realms. As the quality of experience is tied to the making of the individual work, a work is position and its matters are determined by the maker and not by chance. When work endures[6], it continues to *embody* the conditions intentions and sensibilities that convey its purpose. The urge to affect the world, along with clarity of intention and understanding of methodology are essential to significant inquiry. To work only from one's accumulated knowledge will not lead to a recognition of the fullest possible reality of a particular idea. If it comes, this realization can push one beyond the immediate frame of reference to a process of inquiry and digestion; work that evolves from this process finds a place within both the collective experience of society and its own specific discipline.

The necessary factors in such work are never fractured from the idea which propels the work: they become one. It is this oneness for which we search through the process of making. In this realm of making, ideas function as part of the world and as extensions of the world. Here, the fullness of the work's meaning can be experienced.

A sense of discovery is a sense of rebirth. We experience rebirth whenever a discovery is made and we find ourselves connected to a very ancient and timeless reality. Once realized, this reality becomes the practical and sensory material of making. Process, in turn, is essential to rebirth.

## Notes

[1] This commentary is in response to the constant critique that Design-Build takes too much time within the curriculum.
[2] Zambonini, Guiseppe. "Notes for a theory of making in a Time of Necessity." *Perspecta, Vol.24*, 1988: 3-23.

[3] Ibid
[4] The rethinking of design –build occurs because of the change of learning atmosphere. Working in a specific community revolutionizes experience.
[5] Reflection taken from Donald Schön's , See The reflective practitioner
[6] See Chapter 5 *Related Readings*

# CHAPTER 5
# RELATED READINGS[1]

## Translation as Process

Creation is a patient search. Le Corbusier reminded the architect of the tireless work that requires continuous analysis of place and a perpetual design process. During the past six years my ongoing research has attempted to unfold, through a body of work, the definition of loci in the Haitian landscape. Although Haiti may not have the architecturally well-known buildings that Le Corbusier experienced in Europe, there is a similar sensibility in collecting architectural and social artifacts to frame and translate a place. To understand this sensibility, I have developed three modes of translation, - literal, invention, and educational all of which come together in the particular relation of material and place.

**Ouanaminthe**: The case study began in the Haitian town of Ouanaminthe, a rural area located on the border of- Haiti and the Dominican Republic. The concept of translation was the tool used to unveil the cultural, economical, and material layers of Ouanaminthe. The first mode translation was literal: the decoding of Haitian Creole terminology that carry across meaning for place making, aphorisms, and proverbs of Haitian culture.  Then concept was considered for invention: the transformation, alteration, or adaptation to another use of concrete block, earth, bamboo, or coconut palm thatch. Lastly the device was used as a pedagogical process for making architecture in a landscape that has not been developed.

The second mode adapted and transformed the use of local materials of Ouanaminthe to create the project. Here, one goal of the process of translation was to understand the importance of ground: 98 percent of Ouanaminthe dwellings were constructed from materials that are drawn from the ground. The common dwelling has mainly two relationships with the ground - first the dwelling is literally constructed with earthen materials such as trees, adobe, straw bale, rammed

earth and secondly the spatial preparation of  clearing the ground for a context to construct in. Ouanaminthe's construction process can be outline in four phases: kòmande tè a (the commanding of land), boule raje yo (the felling and burning of all vegetation on the plot land), make tè a nan preparayson pou bati (marking the ground in preparation for the foundational systems), and lastly yon plas pou jaden an (designating a place for a vegetable garden). The jaden (vegetable garden) provides a large percentage of Ouanaminthe residents with food and commerce, but the building practice of burning the vegetation of the land has drastically minimized space for growing .Also after laying the foundations many dwellings that were more than one floor brought about construction dangers.  Many local artisans died in the process of building these taller structures, due to the lack of improper scaffolding. Simply stated, the construction techniques for building have hindered the livelihood of Ouanaminthe residents.  My observations and analysis produced the question of –how does one build here? How can one suggest architecture that both weaves the Haitian's sense of place making with a new process that could inspire future designs? The initial answer to these inquiries, after patient search, was an institution for making and learning that could address the problems of construction and inspire material inventions for architectural design in Ouanaminthe.

## The Adaptation of The Hand

The intervention, the building clinic, is an institution for making and teaching.  Building clinic is envisioned as a site for translating local materials into a tectonic language that might address the needs of contemporary Haitian society.  As an institution the focus on the engagement of the working with the hand offers a point of reflection-in-action for both instructor and student.

The building in itself becomes a manual for making and learning to make. The materials investigated at the site are in many cases would be locally available, and thus have culturally

charged histories of making: fibrous material for weaving baskets, embroideries, mats, and hand crafted wood. In other cases, the clinic brings students into contact with modular materials such as concrete block. In all cases, the hand links a problem with potential solutions. To me the result of a patient search is a creation that endures. A creation that endures is one that weaves itself into the mores of its people and can never be divided. The building clinic as a proposal allows for replication because of the focus on hand and material- a combination that allows for site specific analysis with inter-regional teaching methods and experimentation that address Haiti's architectural needs.

## Notes

1 This a paper was presented at the Association of Collegiate Schools of Architecture 96th Annual Meeting.

# APPENDIX A
# A DESIGN-BUILD WORKSHOP[1]

**Overview**: This seminar explores the design-build process as a hinge between university and community. Design-build work, as service learning, combines active community participation with pedagogical objectives of reflection, collaboration, and hands-on experimentation. In this context, the seminar seeks to understand how "reflective building" links thinking, making, and sustaining.

To open and sustain a dialogue between university and community, we will design and construct a community garden at the Woodland Park unit of the Boys and Girls Club of Alachua County. In addition to the site's physical properties, meetings and charrettes with members of the club and the surrounding neighborhood will provide the context for the design-build process, which will proceed quite literally "from the ground" – our work being limited by constraints of time and scale to a primarily horizontal architectonics. One focal point will be the architectural edge of the garden serving as an open-ended, yet highly articulated event-space for reading, conversing, and playing. With the space, we will also seek to make room for existing programs, such as the Sugar Hill Poets and the club's after-school activities.

**Rethinking design-build**: In the spirit of reflective practice, the workshop provides a forum to rethink design-build in a pedagogical and community-oriented context. The loosely held typology of the community garden provides an unexpectedly architectural yet powerfully grounded medium for exploring why and how we build across disciplinary and shared boundaries. Within the seminar group, we will also draw from previous collaborative experiences to understand the dynamics of group work in the context of full-scale, on-site,

[1] Reflective Building: A Design-Build Workshop at the Boys and Girls Club / Spring 2008 was taught by Professor Hailey and Everald Colas.

community-oriented projects. One outcome of the seminar will be critical reflection about the design-build process and recommendations for future sites, projects, and methods.

**Sustaining community**: Another expected outcome of this seminar will be an understanding of how place-making might sustain community. Given the localized context of the plot of land shaded by live oaks next to the Boys and Girls Club situated between Gainesville's Woodland Park and Sugar Hill neighborhoods, the seminar will explore this "common ground" is a physical place as well as a potentially significant situation linked to a community's values and dynamic identities. Consequently, we will find ways of communicating and discussing not only design ideas but also issues of ownership, public space, and programmatic necessities. As the design-build workshop becomes a method for place-making, it is expected that other assumptions about the architectural charrette and the community meeting will also be transformed and rethought.

**Making ground**: Taking the community garden as a starting point and a design provocation, the seminar will explore how reflective building engages the ground. What has been called the "skin of the earth" will for us link social, programmatic, natural, and material contexts. This multi-layered activation elicits ground as matter and substrate. Consequently, "grounding" will be integral to the process of making. How might the project float and embed and be simultaneously temporary and permanent, without being ephemeral? How does the stability of ground accommodate the performative and the flexible? Does making ground allow for such paradoxes as the permanent mock-up and the traveling garden?

**Boys and Girls Club of Alachua County-Woodland Park Unit**: The Woodland Park Boys and Girls Club is positioned between the Sugar Hill community and Woodland Park neighborhood in Southeast Gainesville within a network of governmentally subsidized homes,

organized and owned by the Gainesville Housing Authority. The club provides approximately 100 children (ages 5-17) with a place to spend time after school and seeks to enhance the educational development of each child into responsible adults. Wal-Mart recently provided funding to help begin the community garden and also to encourage Gainesville's Community Beautification Program. The Woodland Park Boys and Girls Club is thus seen as a catalyst for proposing additional projects in the Sugar Hill neighborhood and adjacent communities. This project is also seen as an opportunity for School Of Architecture students to complement their design education with greater involvement in the community – in this case, through a project in eastside Gainesville.

Objectives

To understand and develop a multi-disciplinary approach to design-build work specifically and future professional activity generally.

To participate in collaborative activities and discussions with members of the community.

To develop an ability to select, adapt, and apply methodologies and theoretical approaches related to design-build activity.

To pursue research methods and design process that reduce disconnections between design and construction.

To integrate architectural process and cultural values through the design-build approach.

To synthesize analysis, design process, and implementation.

To develop graphic, written, and oral communication techniques that integrate aspects of the design-build approach.

Course requirements

Participation in community meetings and design-build activities on-site.
Written reflection on the process.
Documentation and preparation of a booklet.

Schedule

January – February: Site-work [making] group <built work>

March: On-line dialogue about process and follow-up site-work [thinking] individual-group <paper due>

April: Preparation of booklet [reflecting] group <booklet due>

Readings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Programs

Archeworks
Location Chicago, IL
Program type Independent design school

Blue Soup Outreach
Location Southern California Institute of Architecture, Los Angeles, CA

Design Corps
Location Raleigh, NC
Program type Independent nonprofit design service
Lead staff Bryan Bell (executive director)

Howard S. Wright Design/Build Studio
Location University of Washington School of Architecture, Seattle, WA

The Rural Studio
Location Auburn University, Auburn, AL (studio located in Newbern, AL)
Program type Design/Build Studio

Studio 804
Location University of Kansas Department of Architecture, Lawrence, KS
Program type Design/Build Studio (semi-independent)
Lead staff Dan Rockhill (director)

Yale Urban Design Workshop
Location Yale University School of Architecture, New Haven,
Program type University-based community design center

Ghost Lab
MacKay-Lyons Sweetapple Architects Limited
2188 Gottingen Street
Halifax, Nova Scotia
Canada
B3K 3B4

The Yestermorrow Design/Build
Warren, VT

Design - Build > Texas
University of Texas at Austin

# APPENDIX B
# REFLECTIVE BUILDING: OVERCOMING BOUNDARIES BETWEEN UNIVERSITY AND COMMUNITY THROUGH DESIGN-BUILD PEDAGOGY[2]

Author bell hooks has written about domestic boundaries as places "where one discovers new ways of seeing reality, frontiers of difference." Occupying the boundary itself becomes an exploration of 'radical openness,' a process that is at once difficult, necessary, and instructive. In the spirit of hooks' insights, we are investigating how particular service-learning experiences of "reflective building" might overcome boundaries between university and community through the active and interactive process of hands-on construction. We have set up a seminar of eleven graduate students from the School of Architecture as a design-build workshop to work with children from the Boys and Girls Club here in Gainesville, Florida to address the lack of adequate space in the existing BGC facility.

Preliminary discussions called for outdoor classroom spaces and a community garden, but the process of defining the problem remained necessarily open-ended and thus influenced how we understand "reflective building." Increasingly well-known, design-build models of pedagogy most typically address recognizable building types and occur within well-established forms of project delivery in which the "problem" has a programmatic and procedural clarity. What has not been adequately evaluated are situations in which the programs are not easily defined, the time periods for student involvement are necessarily compressed, and material resources are limited. In such situations, the design-build process parallels what Donald Schön has called "problem setting." Consequently, we are interested in how the process of designing and actually building sets the problem and dynamically reframes both the "practice situation" of academic learning and the community situation of BGC's own educational mission.

[2] This paper was co-author by Everald Colas and Charles Hailey and submitted to the Erasing Boundaries Symposium that was hosted by the City College of New York

To understand how these university-community boundaries might be overcome, we proposed the reflective building practicum in which University students develop hands-on learning experiences. Pedagogical goals were to engage the club's multi-age members (5-18) and to discover *what* to construct and then *how* collaboratively to build the outdoor spaces on the BGC grounds. The process began with a Design Fair that drew from the conventions of design charrette and crafts fair but focused on activities of making. The Design Fair combined play and interactive learning to set up the subsequent practicum exercises. The Fair and subsequent practicums reframed our own teaching models of design-build pedagogy and ultimately involved the club's members in a reflective conversation to make an outdoor classroom and community garden.

The workshop has sought to build across disciplinary boundaries of design and construction, across the differences of age integral to the BGC, and across the different experiences of university and community. This actively collaborative process of making combines the art of practice and the practice of art – whether through the poetry classes held in a completed outdoor classroom or in the practicums themselves, where children might build a reading bench or cast blocks to edge the garden. Reflective building not only works in the sense of thinking-in-action and the training of Schön's reflective practitioner, but also reflects how "community-building" can come about quite literally from making things together. And in the end, it is quite possible that the hands-on exercises set up by the university students mirror, indeed *reflect*, their own learning experiences as well as instructors' aims to facilitate a radical openness of program and pedagogy.

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# BIOGRAPHICAL SKETCH

Everald received his Bachelor of Design (2005), Master of Architecture (2007), and Master of Science in Architectural Studies (2008) from the University of Florida. He has taught Haitian Creole courses at the University of Florida for two years, and also has taught first and second year architectural design studios. Within this work was his most current teaching assignment of co-teaching a graduate design-build course at the University of Florida.