## The Reggio Emilia Approach and an Architectural Education: A Dialogue

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Paul Klee's musings on the quality of a line "moving freely, on a walk for a walk's sake" references the pedagogical processes inherent to a formal architectural education. As participants in the studio system, professors and students alike are participating in establishing a path. However, the directionality and outcomes of that path are not entirely predetermined. The path of the education is the line, "on a walk for a walk's sake." The composition of the line is informed by a myriad of events and sources, each of which affect its texture, 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.

In this formative period, students are unlearning while learning; engaging in measured contemplation while constantly constructing the products of their investigations within the rhythmical framework of the design studio. The success of each student's progress within this setting can be discovered within the individually derived formulae of their processes. How is the student deconstructing what they knew and then reconstructing what they've discovered? What cues are they adhering too and what contextual features are they admiring or discarding while taking "a walk for a walk's sake?" The formulations of answers respective to these questions are dependent on the interaction and interface of the student with his or her peers and critics. However, these questions can be further augmented by proactively acknowledging student generated artifacts and memories, and in

so doing, fostering students' developing methodologies of process.

Insomuch, it is apparent that it is not merely the Architecture student that is partaking of "A walk for a walk's sake...;" the professor of the design studio, as the dedicated critic, must forge the path of "the walk" for, of, and with the students. The professor must recognize that he or she is a vessel for the holistic studio as well as individual explorations and productive, tangible meditations. Enabled by the instructor, the studio becomes a dynamic entity; a multifaceted, dimensional, product-inducing narrative engaged in a particular yet not entirely predetermined Odyssey. As previously discussed, a studio unfolds in a rhythmical fashion. From the outset of this reoccurring institution, it is the task of the professor to establish the goals of and set the metronome for the studio. While each studio course occurs within a finite measurement, the orchestration and construction of the space of learning in between the determinable brackets of "beginning" and "end" should be constantly and thoughtfully re-examined based on an objectively defined directionality indicated in large part by the constructed "reactions" of the students. Again, while the fundamental goals of a studio are established as benchmarks to be achieved before students can or should progress to the next educational sequence, those aims can be met while allowing for the acknowledgment of concepts, processes, and purposeful diversions generated by the student body of a particular studio.

It should be stressed that a design studio cannot be successful or entirely meaningful as an inter-related mechanism in the education of an architect as a solely freeform entity. Each project within a design studio sequence is marked with its own learning objectives while simultaneously building upon prior educational foundations and each must arrive at moments that are composed of equal parts introspection and exposition. At such times, students are compelled to contemplate the constructive criticisms leveled upon their process (and products) then must (re) examine the method employed when they resume their course of study. Before, after, and at this particular juncture, the professor is the initiator and the instigator; the agitator as well as a tool of translation with respect to the facilitation of the students' spatial explorations.

As studio facilitator, the professor is intrinsically positioned to recognize and acknowledge the incidental investigations exposed and/ or uncovered by the students' methods, processes, and related interests. For example, in the course of a semester, student generated provocations may arise that are seemingly tangential and/ or accidentally borne out of goals implicit to a given proj-The professor can recognize these events as active questions seeking resolution. Furthermore, the professor can employ this moment as an opportunity to (re) structure, and in so doing, add another layer to, the path that he or she has mapped out as the studio's "walk." Here, the professor assumes another role: that of an improvisational yet informed pedagogical cartographer.

While the professor is moving the class towards a destination, with the acknowledgement and subsequent inclusion of student-based discoveries and/ or inquiries into the genus of the course, the means by which the omnipresent goal will be arrived upon has been altered. The diagram of the space between pedagogical and methodological arrivals must be redesigned within the given matrices of the course. The derivation of a new pedagogical routes generated by the professor, originating from the point of the inquiry may not, however, fully exploit the (un)discovered question. As mentioned earlier, the professor can choose to abstain from providing an explicit means to a solution but may instead posit another question (or a series of explorations) that will in turn serve as a

tools of germination for more constructed discovery within the context of the studio. By allowing the students this degree of control over their education, students are actively informing the path of the "walk" they have chosen and are beginning what could develop into a practice and, more importantly, a process of seeking to discover the undiscovered with regards to how they generate a project from a set of given objectives.

The practice and methodology of educating students of architecture within the physical and intellectual setting of the studio is not a new phenomenon. Twentieth century models of Architectural education such as The Bauhaus have established that the active participation and interface between professor and student, student and student, faculty and student body, and academia and practice, have each relied on the cultivations derived as well as the individual nuances of process achieved in the studio sequences. Within these settings, the question of how a student generates a project while engaging and developing a process of making, has been tantamount and fundamental to the core values of the course of study. However, the practice of observing the methods by which learning occurs in the studio is seldom discussed as a pedagogical process by which the work of the Architecture studio can evolve into more multi-layered and self-informed experiences. This exploration merits a discussion and analysis of another educational model; the Reggio Emilia Approach.

In northern Italy, the town of Reggio Emilia provides a progressive model of early childhood education, known worldwide as the Reggio Emilia Approach. As noted by the America psychiatrist Jerome Bruner, one cannot understand the educational models of Reggio without comprehending the nature of the place from where they evolve. Reggio Emilia is a place that is steeped in long and varied histories of collectivism and reciprocity with regards to the interactions of its populous. The genesis of these practices can be traced to the inception of the craft guilds and communal republics that inhabited the northern region of the Italian peninsula in the 12th century AD. In addition, the locale is noteworthy for a consistently high level of economic prosperity as well as the effectiveness and efficiency of the local government. Not surprisingly, there exists in Reggio Emilia a high degree of participation in the action of resolving

societal ails through the activities of political parties and citizen cooperatives.

Blended into the to the pervasive attitude of communal responsibility in the spheres of politics and social policies, the early childhood educational model of Reggio is understood as a process that becomes a shared democratic experience. Every citizen in Reggio, no matter their age or class, is responsible for, in some way, participating in the education of children. The school is an inseparable entity that is inextricable from the broader physical and intellectual community. Additionally, the school becomes a less formal institution, operating instead as an "educational project" through "active, direct, and explicit participation."

Reggio must be understood as a continuous educational experiment. While the products of the hypothesis are ever evolving, the foundations of Reggio are fundamentally harvested from a triad of sources. American and European models of progressive education such as those espoused by John Dewey, constructivist psychological models pertinent to early childhood development proposed by constructivist Lev Vygotsky and Jean Piaget, and leftist reform policies borne out of the climate of post World War II Italy all coalesced to enable the educational trajectory of Reggio.

The structure and the technical apparatus of Reggio are purposefully implicit, existing as organic armatures for learning and discovery. Positioned within these armatures are the mechanisms of pedagogistas and atelieristas (teachers and school staff that run the individual classrooms, or ateliers), cooks, and auxiliary staff. Furthermore, there are explicit hours of operation, composed of set daily and year-to-year schedules. Yet, for all the pragmatics, the work that transpires within the Reggio avoids an obsession for adhering to predetermined time schedules of learning. Time is considered as an experiential concept that is not monitored so much as it is allowed for in the guise of "time of production." The rhythms at which children produce are observed and nurtured by both the pedagogisti and atelieristi so as to further complement the children's method of learning, or making.

Similar to the structure of an architectural education, Reggio is a pedagogical process, a line "on a

walk for a walk's sake." In both platforms, there exists an overt absence of a prescribed destination for learners. There is, likewise, no static space within the construction of either line. Instead, there exists a constant progression similar to "[a] walk" in which the participant constantly looses his or her balance and then immediately re-establishes it while continuing to move forward. Each new step that is taken is informed by the process and the eventual position of the last incremental educational advance.

In the atelier and the architecture studio, process is an indispensable and tangible component of Vygotsy's educational scaffold. As pragmatic devices, scaffolds are temporary structures made of a purposeful collection of poles and platforms that, once fitted together, assist in the construction of a building. Upon completion, the scaffolding is removed. As defined by Vygotsky, scaffolding represents "the role of teachers and others in supporting the leaner's development and providing support structures to get to next stage or level." It is the responsibility of the atelierista, pedagogista, and, likewise, the architecture professor to facilitate a path by devising a pedagogical map that allows the learner to embark upon meaningful diversions. Furthermore, to participate in "[the] walk" of Reggio or an Architectural education, one must engage in the act of constructive confrontation. In both models, the methods of process are examined as much, if not more than the final products.

The work of Russian constructivist artist and theoretician Kasimir Malevich facilitates another threshold through which a conversation can occur between the educational processes of Reggio and contemporary architectural education. In the beginning sequence of a student's architectural education, they are often tasked with making, exploring, and exploiting the spatial possibilities of a finite cube, the space of which is composed of subtractive and additive systemic elements. In the first class meeting, the student is charged with constructing a cube based off requirements of specific size constraints and supplemented with a specific architectural vocabulary list.

Key to the composition of the cube is the acceptance by the student that there exists no predetermined formal hierarchy with regards to any one

of the cubes six explicit or implicit planar edges. There is no "top" or "bottom," no "front" or "back." The process that the student engages in while developing the cube references the ideas of the Malevich. In the early 1900's, Malevich developed a series of paintings entitled Tektonics. The geometric subjects of these paintings existed in seemingly weightless contexts; the compositions had been removed from the formal constraints of a ground plane. As such, the space expressly created and implied by the underlying geometries of the Tektonics could be understood as being a generative system in and of itself and not a resultant that was subservient to objects. In accordance with this concept, beginning students will sketch the "interior" of vertically halved bell peppers and/ or the space that is captured when two or more stools are interlocked or related tangentially to one another. When executed so that the space alone is the focus of the recording, the objects reappear as being hierarchically dependent upon the space.

It is necessary to note, however, that at this early stage of Design 1, many students are not accustomed to viewing space as being primary to objects, let alone constructing a critical spatial composition from three dimensional elements. In these initial meetings, the Design 1 student is fundamentally positioned in the same space as children Vygotsky described who wished to ride a horse but could not due to the absence of the said animal. Vygotsky contends the child's imagination can become a formative vessel for a tangible realization. "The child wishes to ride a horse but cannot so he picks up a stick and stands astride of it, thus pretending he is riding a horse. The stick is a pivot. Action according to rules begins to be determined by ideas, not objects. In this setting, objects are pliable mechanisms for ideas to be extended. Analogous to the children in Vygotsky's narrative, in confronting the cube project, the Design 1 students begin to allow "...action according to rules begin[s] to be determined by ideas, not objects." Through the action of making, students develop syntaxes of language based upon the ways in which they articulate the spaces they make. This initial act of making commences a dialogue between the students as well as between the student(s) and professor, and likewise it initiates a continuum of listening and reciprocity.

The professor, as facilitator and researcher must be mindful to engage in the act of listening as an active and affected participant. Listening becomes a mechanism for forming additional guestions specific to the constructed linguistic of the student(s) in order to fully exploit the initial instigation of the question while continuing to chart (and responsively update) the path of the course. Here, the professor of the Design 1 course assumes the role of pedagosita and atelierista. When the students return for the next class meeting with their initial cubic constructions, the professor must listen carefully for the student generated codes and symbols as the class makes public not only each individuals physical constructions but also, and perhaps more importantly, their burgeoning methods of process. In building the cube and subsequently explaining their product, each student has taken a position.

As would occur in the atelier of a Reggio school, the students in the architecture studio begin to construct languages based on processes of making. The question of how to assemble the spatial construct of the cube is a confrontation that provokes a simultaneously physical and intellectual response. The event of making produces implications that transcend the assignment. Participating in the cube project requires each student to create syntaxes. These elements can be derived from sources such as multiple definitions and implications of architectural vocabulary words or by the implications of materiality the students experience when engaged in making. The interaction of students working together in the studio encourages the cross-germination of student generated ideas and methods whilst creating linguistics. By (re)interpreting the data and materials with which they are working, the student's are not only engaged in the act of making language (and space) but they have also occupied a position upon a continuing educational scaffold.

It is important to note Design 1 is not the ultimate source for language making; it is the foundation. The act of constructing knowledge into a language is a process that occurs throughout undergraduate and graduate design sequences. As students progress within the educational continuum, the interests they explore with regards to the fundamental spatial concepts of a given studio, can, parallel to the operations of Reggio pedagogistas

and atelieristas, be augmented by the research of the Architecture professor. Reggio accepts the validity of all languages: writing, reading, painting, counting, building, gesturing, etc. Existing within each language are intrinsic capabilities for exploring and defining aesthetic elements, or materiality. In both Architecture and Reggio, the materials selected and the way in which these artifacts of construction are subsequently composed, operate as agents for engaging in and understanding the syntax of the constructed language. Conceivably, the creation of spatial languages and the notion of scaffolding can continue to occur for the design student beyond the academic setting into professional practice through project-based interactions with members of allied professions.

Omnipresent within the studio sequences is the activity of documentation. As with Reggio, documenting is not a rarified event set apart from the overriding pedagogical aims oft the studio. In both settings, documentation enables a democratic dialogue. The act of documenting records social networks as well as contexts that have been established and informed by the process of the project. Quoting the late Loris Malaguzzi, a noted Reggio educator, by engaging in the activity of documentation, "[children] become even more curious, interested, and confident as they contemplate the meaning of what they have made." Documentation and the processes predicating it, fosters creative interdependencies between the children in the atelier as well as acknowledging discoveries of making.

In an Architectural and Reggio setting, the moment of documentation can occur at various scales and may occupy different time signatures. By simply working on a project at a desk in a studio, an Architecture student is documenting his or her process. Scraps of materials, so called "bug-models," evolving drawings and models, etc., are documents from which process based conversations can ensue. Documentation can also inhabit more formal moments, at the mid and ending points of a semester or at watermarks within an educational continuum such as the moment of transition between lower and upper divisions or between undergraduate and graduate school studies. Students, professors, and administrators alike can utilize the aforementioned occasions as brief moments of pause to re-evaluate and re-assess the process and products that have manifested in the studio. By engaging in these introspective conjunctures, participants strategize on how to progress with regards to the implementations of future projects. To paraphrase Maria Montessori, an Italian early-childhood development theoretician and educator, whose pedagogical methods are considered as models by Reggio, documentation "shift(s) the action of the school from teaching to learning, favoring the constructive and collaborative action, and the presence of the teacher... who is always available but never overpowering."

Architectural and Reggio pedagogical models are not parallel in their educational pursuits; they are identical. The methodologies of both place the emphasis of making, generation, and reinterpreting the implications of the initial provocation within the realm of the learner. However, the roles of teacher and learner are not always formally occupied nor are they explicitly hierarchal in either platform. The success of both typologies is dependent upon the learner being teacher and the teacher being learner. Achieved by these ongoing positional shifts, is the mitigation and mediation of the perceived boundaries between theory and practice. Architecture and Reggio educations alike are at once introverted and extroverted. Both educations require, in equal measure, the opportunities and occasions to continuously evaluate their internal processes while simultaneously exposing the discoveries that have been made to informed, participatory, and position-based audiences. Within the varying scales of these confrontations, exists fundamental tenants of both edu-As Carlina Rinaldi describes, "...doubt, cations. uncertainty, and feelings of crisis are seen as resources and qualities to value and offer, conditions for openness and listening, [are] requirements for creating new thinking and perspectives." Rinaldi continues by positing that Reggio (and, in the estimation of this paper, an Architectural education), "[is] against all pedagogy whose purpose is in some way to predict a result."