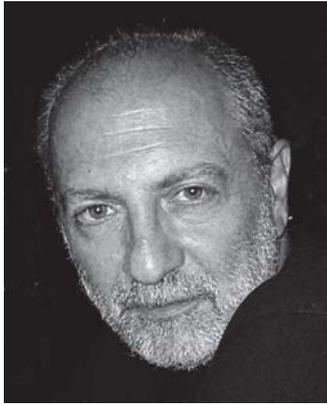


Professor Anthony Viscardi

TITLE: PLAY-TECH-TONICS



Topic: Architecture

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[1] Juhani Pallasmaa
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Muuratsato

www.generativeart.com

Abstract:

The desire 'to know,' or 'wonder,' is the human need for knowledge. It exists in all of us and stimulates one toward inquiry and dwells in our acts of 'serious play.' In play we allow ourselves to enter into the limits of another world; a world apart from reality, yet so vital to understanding the meaning and significance of that reality. We allow ourselves the opportunity to play to a different song (a new set of rules) and unlock the doors of our imagination to the construction of meaning.

What I would like to suggest in this paper is that in learning, and especially in the initial years of an architectural education, a more playful point of view must be encouraged to provide an arena of inquiry that produces architecture and a culture that is more wonderfully humanistic. The pretending quality of play should not be misunderstood as preventing it from proceeding with intense seriousness. This is easy to understand when observing the intensity young children exhibit in their daily adventures in the play of life. As Dr. Benjamin Spock explains in one of his many writings about child rearing: "Play is serious business. When we see children building blocks, pretending to be airplanes, learning to skip rope, we're apt to think, in our mixed up adult way, that these are just amusements, quite different from serious occupations such as doing lessons and holding a job. We are Mixed-up because most of us were taught in our childhood that play was fun but that schoolwork was a duty and a job was a grind...Children love their play, not because it is easy, but because it is hard!"

Play is the means by which children discover and process the meaning of things around them. As a child uses these (things) to re-affirm his perception of the play, the play becomes the thing to bring him through the transformation of perceptions. It becomes the means allowing for the acquisition of knowledge through personified experiences of wonder rather than through the supplement of information which can short-circuit discovery. Alvar Alto once spoke of the importance of experimentation and play in his design process when speaking about his 'Experimental House at Muuratsalo:

[I have] a firm conviction and instinctive feeling that in the midst of our labouring, calculating, utilitarian age, we must continue to believe in the crucial significance of play when building a society for human beings, those grown-up children. The same idea, in one form or the other, surely lies at the back of every responsible architect's mind. A one-sided concentration on play, however, would lead us to play with forms, structures and, eventually, the body and soul of other people; that would mean treating play as a jest...we must combine serious laboratory work with the mentality of play, or vice versa. Only when the constructive parts of a building, the forms derived from them logically, and our empirical knowledge is coloured with what we might seriously call the art of play, only then are we on the right path. Technology and economies must always be combined with a life-enhancing charm.

In the practice and education of architecture, the element of risk should always be present in the persona of the architect. If one only dwells in the *workmanship of certainty* rather than the *workmanship of risk*, only established and tested methods and solutions are throughout their work. With the element of risk, the architect tends to experiment with novel structures, forms and materials. In this haptic state of emersion, the hand explores, searches and touches all that the imagination presents as if it was fresh and new. This is a very important notion especially when engaging the new computer generated design studies. I mention this because of my suspicion concerning the false precision and apparent finiteness of the computer image when compared to the natural ambiguity and innate hesitancy of the hand. It is in this ambiguity that one can dwell in the play mentality and allow assurance and precision to arrive at a satisfactory resolution after many trial and error iterations. This is not to say that a skilled computer artist cannot find this counterpoint in its medium but I do not believe it encourages this type exploration. As Juhani Pallasmaa states in his book; THE THINKING HAND, with concern:

Precision of thought and performance, as well as emotion, is crucial, but only in a counterpoint and dialogue with embracing and vague, all-encompassing and oceanic creative imagery. The seminal role of vagueness is totally ignored in today's pedagogical philosophies and methods... Does the computerized hand allow 'the happy moment when all conscious control can be forgotten? Does it permit a multi-sensory imagery and an embodied identification?

This paper is not an attempt to favor the hand drawing over the computer drawing (although I do have my preferences) but an admonition in terms of the importance of a playful mindset in how these two skills are employed as a creative design process in generative art and architecture. I will try to demonstrate this pedagogical notion by positioning 'play' in several different design situations as conducted in my architectural design studios. I will address play as analogy, as portal of entry and as a tectonic then finish the paper with a design proposal I am currently pursuing to bring play into the collaborative act in the building of community.

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PLAY-TECH-TONICS



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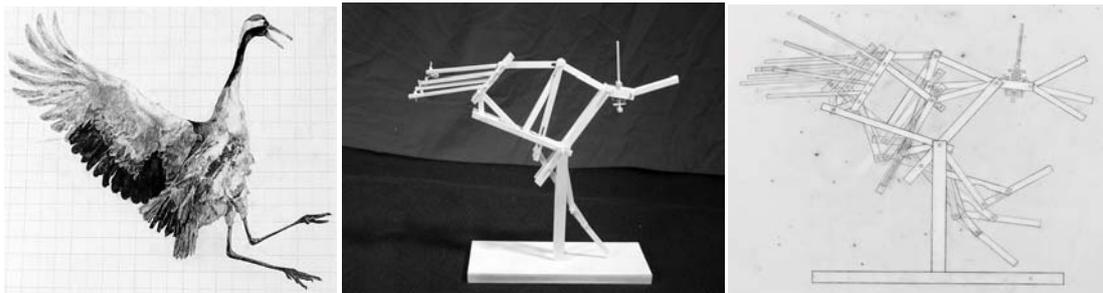
PLAY-TECH-TONICS

A process of constructing one's imagination

“Imagination is the faculty of transforming the experience of what is into the projection of what could be, the faculty that frees thought to form ideas and norms”
(Iris Young)

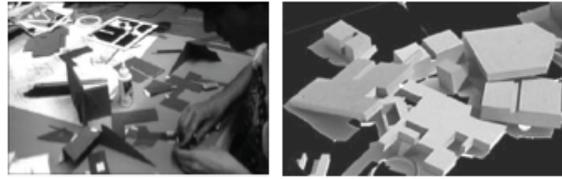
PLAY as interLUDE

As many scholars have suggested from Plato to Huizinga, play forms are the separate worlds apart which help us to be informed about the worlds within. It is through myth, fantasy and the many forms of analogy, metaphor and personification that great wonders of the imagination are given meaning and realization. Although play is but an interlude, “...it adorns life, amplifies it and to that extent a necessity both for the individual - as a life function, and for society by reason of the meaning it contains, its significance, its social associations, in short, as a cultural function.”³

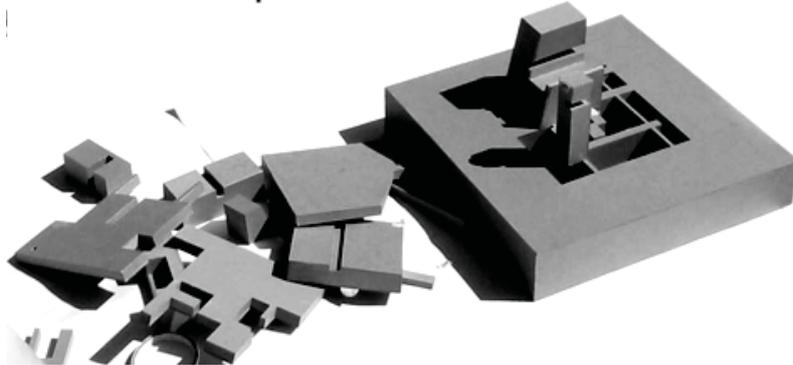


In order to establish the studio as a setting for wonder, research, and invention, **analogy** can also be used as an effective device to develop a constructive imagination, since parallel readings are implicit at many levels, from surface meaning to operative functioning. Analogical exploration also allows beginning design students to assimilate complex forms and processes from realms outside of the architectural discipline. The students are thus enabled to discover architectural form and use in a manner unencumbered by preconception and conventional program.

An analogical studio process at times might appear to be paradoxically restrictive and formulaic, if each step is prescribed for the student. On the other hand, it is possible that the student is instead liberated from the burden of process, and thus enabled to dwell in the wonder of focused enquiry. Each step of the process re-contextualizes the student's own work, in effect expanding the meaning of the work. Similarly, the use of analogy opens up, rather than closes down, a set of architectural possibilities. This form of design exploration is ultimately open to change and evolution. Meaning, therefore, is derived from an implicit search for understanding formative principals rather than definitive conclusions. “Arms, Wings and Mechanical Things” is the title of a previous paper presentation at the GA 2002 conference that gives more detail about this analogical studio.



kit of parts



PLAY as TECH

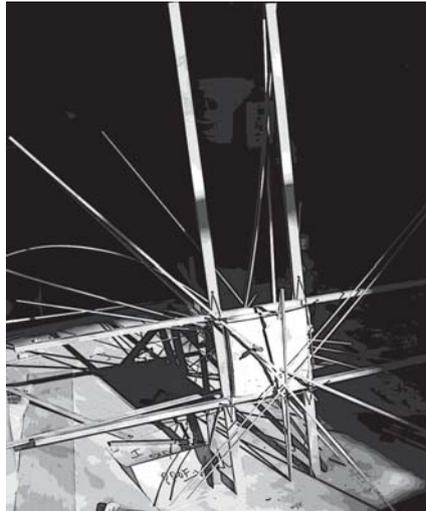
Most students entering beginning design have already experienced at least 18 years within the designed world. The knowledge gained from that experience and the skills developed become valuable assets to the design student. Viewing education as a process of discovery, design education orients toward a “search process” and allows one to use personal history as both a knowledge base and a procedure for designing. In the act of making, an immediate dialog is established with the project at hand. The hand directs eye and existing knowledge is used free of the limitations of an architectural form “image.” Making is a process that reveals thinking, embodying in the work and in the doing, the self.

Form making can begin with the derivation of basic elements of architectural form and space—architectonics. These elements can provide a ‘search field’ within which interrelationships are discovered, promoting structuring strategies or concepts that demonstrate ‘how’ they are to be manipulated in the act of making. Although architectonics supports the overwhelming desire to make a building (the noun), it could dangerously result in a design inquiry that parallels stereotypical production and preconception. When building, as a *verb*, is pursued, tectonic making results in forms of investigations, discoveries and formal dialogs where innovation occurs as a result of design negotiation. The design process is freed from preconceived outcomes or deterministic methodologies; it reveals itself through choice. The process is one of design research where the choices are made on the basis of a search for meaningful relationships, their premises and consequences. It is then a series of approximations born out of possibilities. Architectural knowledge, here, is ‘tacit knowledge’, acquired by *doing* rather than by being instructed in the rules of doing. Experimentation and transformation provide irresistible stimulus to the formation of new ideas. The process of transformation, the concept that all forms or ideas can be rearranged, synthesized, and put back together to make a new whole, increases the likelihood of making ‘intuitive

leaps of invention'. In this architecture of Play, learning becomes fluid and open ended and innovation starts with the question: What if? Knowledge is drawn from wonder — giving form to answers, redirecting stereotyped thinking towards a search process where hidden intentions and accidental discoveries lead to new alternatives and solutions. Through many forms of deduction, abstract relationships are tested and defined as they materialize into and demonstration—of intent.



As an initiation into this design realm of thinking/doing, I have employed an exercise I had as a student of Tom Regan at VPI, called, “The High Variety Model”(3). On the first day of their first architectural design studio the are directed to the hobby shop to buy a 1/25th scale model kit, some felt tips, a roll of yellow trash and return to class in an hour. When they return they are told to build something architectural from all of the parts (box and instructions included) in their kit. There is one stipulation, the parts cannot be used in such a way to resemble the intended image depicted on the original model kit as bought. In other words, an immediate and random sets of variables are injected into the creative play. Use of the model forces one *to select* representative parts, *to organize* them, *to evaluate* and re-evaluate their suitability in relation to the new project at hand, and then *to modify* inconsistencies, thus differentiating between what is understood and what requires further search. As the detail of the element is modified, so is the totality of the organization in reference to one’s new knowledge and decisions. The construction is continually in the process of re-creating itself in the process of its own creation. In the end the significance of using the High Variety Model is that it necessitates decision making as a design activity, forcing the introduction of random information to be used or discarded, and it directs a focus on organizational concepts as opposed to architectural form images.



PLAY as a TONIC

'Opening an Artifice'

A students' introduction into their first design studio is of immense consequence upon the initial impressions one receives about the creative design process. In order to short circuit the beginning design students propensity to rely on preconceived ideas and images, "an enabling theory" can be immediately introduced in the design process that can allow form to beget form. I have referred to this process of design initiation as 'The Opening an Artifice' [from the Latin *artificium*, a trade or profession, *ars*, art, and *facere*, to make]. As Kristopher Takas, one of my former students, put it in his recapitulation of his previous design experience called; "ARTIFICE INSEMINATION," as published in our student design magazine, *eyelevel*:

"A theory of making must be invented: it will either elucidate how to construe or how to construct...this is called the process of opening of an 'artifice.' The concept of artifice, of course, must be understood in several manners. Usually it denotes skill or ingenuity. But it also connotes something more: trickery and craft. Since a productive enabling theory commences with an artificial separation between form, content, and function, this [threshold] to design can be seen as a clever expedient from ideation to creation. To separate content and function from the syntax of form, for example, means to deal initially with a formalist, repertory of tangible vocabulary. Hence, the artifice is device. In the artifice-al (and ergo,artificial) scenario, meaning is theoretically subtracted from materiality so that the designer may manipulate the tangible constituents of formalism—i.e., materials, space, form, shape, color,et al— without getting wrapped up in the infinite chain of signification's inherent to any system of making. For some architects, this is natural and unquestioned act; for others, however, the conception of an artifice is a conscious art through which formal components of form are exploited and then abandoned to collude as they might. Yet, this design purism isn't architecture yet. The artifice

relies on deception: its purpose serves to suspend belief, and to postpone reality, so that the designer may first enter through the imaginative portal. Architecture begins on the other side.”

‘Design’ is the form of architectural thinking that traditionally is considered paramount in the education of an architect. The design studio is typically the place where students bring together the practices, concepts and knowledge that are introduced in other areas of the curriculum. Consequently, it is necessarily a synthetic process. Form, function, and content (meaning) have long been critical constituents of the process of design. In the past, architectural design academies dictated a specified order to the critical constituents of form, function, and meaning (content) resulting in a deterministic means of design inquiry. In the current heterogeneous state of the architectural design studios in academia, the hierarchical prescriptions, or sequence, of the three notions of form, function and content (meaning) have been freed from the strict boundaries of former theoretical paradigms. Although the separation of these three notions is admittedly artificial, it allows beginning design students to immerse themselves into the task at hand without relying on self-conscious preconceptions.



If we begin to view these components as metaphorical portals that the student opts to pass through, their order becomes particular to the personal design route for the project at hand. Thus, one can choose form from meaning, form from function, or form from form itself. This becomes a point of departure that frames a particular perspective with which the student can proceed in his or her design process. Alberto Perez-Gomez calls this theorizing the inventing of an ‘enabling theory’; it enables the designer ‘to make’, serving as a rationale for ideation and fabrication. As the project develops, a design scaffolding it is able to support the other architectural constituents of design theory. It becomes a vehicle for the student to initiate creative associations and evaluations to direct decision-making. (see Paper presentation GA conference 2003, “Imagined Architecture via Material Imagination)

PLAY vs. GAME

Play In The Public Sector As Community Building: “Shadow Casting”



‘Play’ means different things to different people, however. When Huizinga (1960) wrote that ‘civilization is, in its earliest phases, played’, he was linking the evolution of rituals and ceremonies, of the rules of diplomacy and those of warfare, to the contests and competitions that characterize games. Competitive play, however, is not the same as the more fluid and self-determined play that I am advocating here. My view is closer to that of the artist Alan Kaprow, who contrasts play with games: This critical difference between gaming and playing cannot be ignored. Both involve free fantasy and apparent spontaneity, both may have clear structures, both may (but needn’t) require special skills that enhance the playing. Play, however, offers satisfaction, not in some stated practical outcome, some immediate accomplishment, but rather in continuous participation as its own end. Taking sides, victory, and defeat, all irrelevant in play, are the chief requisites of game. In play one is carefree; in a game one is anxious about winning. (Kaprow, 2003, p. 122)

Up to this point in this paper I have referred to design studios that exist in the confines of the classroom. I am developing strategies to bring the act of making into the public realm where working together toward a common goal can build more than the architectural project at hand. I am planning a project that will require people from the community to rely on one another in an act of constructing; shadow casting. In this situation ‘game’ takes on a different character in that it does provide a set series of rules but the outcome is non-deterministic because the form in the forming. This releases the notion of victory or defeat traditionally associated with game, for all players are working to construe a common construction.

The collaborative event should take place in a public plaza, green on our campus or a city’s public park. There will be teams of two to begin the shadow casting process. One will be designated the shadow caster (with long bamboo poles) the other will be the shadow chronicler (using field marking chalk or spray paint) to mark the cast shadow on the ground surface. This

process will be conducted at three different times of the day (morning, afternoon and sunset). Once these lines are drawn on the ground we will begin to transform them into cuts into the ground (foundations and darkness) and overhead constructions (cutting the sky). These moves will occur as a result of translating the maps into full scale, habitable, architectural constructions. They may be permanent or temporary depending on the site locations. The event can be conducted with as few as 10 people and as many as 50, it also depends on the time and place of the event.

During my current sabbatical, my intention, is to create a new set of drawings or "Shadow Maps" as well as to re-engage my previous maps. These maps will be translated into 3-dimensional constructions using a variety of materials and sizes to concretize my theoretical inquiry, "If a object can cast a shadow, can a shadow cast an object?" I will be preparing the maps/drawings, models, and strategies that will facilitate a full-scale collaborative shadow mapping construction in the public sector. I recently met with Michelangelo Pistoletto to propose the possibility of work-shopping this theoretical inquiry in a full-scale collaborative project with resident artists at Cittadellarte-Fondazione, Biella, Italy during my sabbatical year or soon after. After an artist in residency at Domus Argenia in Sardinia to prepare strategies for this creative collaboration, I have been invited to conduct a shadow-mapping event in Rome, Italy with artists from the Generative Arts Conference later next year. I plan to incorporate these ideas of creative collaboration in the other countries I will be conducting design workshops at such as Sao Paulo, Brazil and Nanjing and Shanghai China. After my sabbatical in August 2012, when I return to teaching my design studios, I plan on conducting a similar shadow-casting event with my architecture majors as well as other students and faculty from the College of Arts and Sciences.

"Play by the rules, in order to begin

*Through the ambiguities of the play comes the dialogue;
through the dialogue comes invention. To design is to ask the
questions; How? Why? What if? In the question lies the answer,
yet the answer must always seeks the new question- new
theories.*

Beauty - in form dwells, in the knowledge of the rules of play.

*In order to play a new order, to design is to re-interpret the rules
of the play to transgress through the rule until a new order is
uncovered,*

*to rediscover the familiar as something new. To bring light to the
invisible,*

*to create a consciousness manifest in the making of things that
represent the world, to bring the sacred to light, to reveal the
place of man." (Viscardi)*