Visual Understanding: The Ethics of Architectural Representation

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Abstract
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Keywords
representation, drawing, ethics of, architectural ethics, architecture

Disciplines
Architectural History and Criticism | Architectural Technology | Architecture | Cultural Resource Management and Policy Analysis

Comments
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Visual Understanding:
The Ethics of Architectural Representation

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Abstract:
Architectural representation’s multiple purposes include serving as working method for the architect and as communication to others. It is in communicating proposals to others that ethics issues arise. At stake are: satisfying values, meeting expectations, ‘reading’ architecture in one’s imagination, and enabling decision making. The first ethical requisite is teleological virtue: mastering the practices of representation. The second is that of deontic obligation to accurately portray design schemes to non-architects to enable the highest degree of understanding. Virtue concepts from Vitruvius to CAD, and case examples from Piranesi to Lebbeus Woods and the New Urbanists are explored.

The Case for an Ethics of Representation

We design and build our landscape to enhance human inhabitation, to improve the quality of life. With these ends at the fore, architecture is a complex social-political-economic-aesthetic collaborative enterprise. It is large-scale and uses significant amounts of material resources. Even modest-sized projects often have enduring visual, economic, functional and ecological impacts beyond the immediate occasion of their fabrication and their immediate environs. Architecture is not solely the province of architects. Architects are not autonomous: they apply their talent, skill and professional judgment within, on behalf of, a community. As Alberti (1994, p. 5) put it: it is upon the “delight and wonderful grace of his [the architect’s] works, ... the benefit and convenience of his invention ... that the security, dignity and honor of the republic depend”; and which are “responsible for our delight, entertainment, and health while at leisure, and our profit and advantage while at work, and in short, that we live in a dignified manner, free from any danger.”

Today, direct clients, building users, public zoning boards and design review committees, the general public, and financiers, for example -- often dozens of people and official entities -- participate in the decision of what shall be built. Each time an architect exclaims: “If this client could only understand this scheme ...” or “We really need to educate this client about ...”, he or she is defining the gap that exists between architects (as well as engineers, interior designers, landscape architects and other environmental planners and designers) and non-architects, and the divide that architectural representations must bridge. Beyond technical descriptions of measure, material and constructability, and forecasts regarding environmental and social impacts, these decision-makers, the community of people within which architecture originates is commissioned and accomplished, have one shared powerful demand: the need to know what the design will “look like!” Representing a building’s appearances, how it will “look”, is no small matter, because to the Western mind, how it will “look” is a key to unlocking how it will actually “be”, and thus how it will feel to stand before it, to occupy it, and how it will affect our world.

Architecture is a public act, a public art. While architectural representations are multifaceted in their capacities as personal and professional work-
ing methodology and media of invention, it is the requisite that they be employed to enable public understanding of projected works that is the key for us here: enabling discourse, judgment and a myriad of decisions. While the ‘public need to know’ how a projected building will appear, how much it will cost, what resources it will use, etc., need not constrain architectural invention or quality, it is because of the need for public understanding and the magnitude and import of environmental design decisions that architects incur an ethical duty -- and their architectural representations, an ethics. Those ethics present themselves in two forms: the teleological virtues of architectural practices to create representations through drawings, models, and computer delineations, etc., that meaningfully communicate to others; and the deontic obligation to make “truthful” representations, to be accurate in portrayal, to not mis-represent a project. Ethical virtue demands acquiring knowledge and mastering skills expected of an architect, the knowledge and skills to delineate design proposals, without which one cannot be an architect (Note 1). Beyond ineptitude (which is a failure in virtue), inaccurate representations, those that hide or shade facts are ethically problematic, for they essentially conceal from, lie to, or cheat clients and decision makers, and others in the general community.

Notes on Representation

Unlike other representational works which are complete in themselves (for example, painting, sculpture, literature and poetry), architectural representations, while they can be appreciated as things in themselves (Note 2), serve the functions of portraying and delineating for the mind and imagination environments that do not yet exist, and to guide construction. The referent of a portrait is the person represented; but there is no confusing the painted portrait with its subject; the portrait is not a simulation. Likewise, a sculpture of a hypothetical king may represent kinglyness and kings, even though there is no specific king referred to. In this way, works of art and literature, though they may have a referent, and even though sculptures may be corporeal, they are not confused with, nor are they thought to be the referent, even if the work is mimetic – intended to convey as closely as possible at least one instant image of the referent.

But architecture is not autonomous art in itself. As Kant (1976, p. 325) points out, architecture arises in other purposes than its being a work of art, and finds perfection in meeting them (to be a church, a home, a monument, etc.). Though a work of architecture may be a work of art, its beauty is contingent. So too with architectural representations that serve a public function: their purpose is to hold a mimetic relationship to a future reality, to reduce ambiguity, to be accurate. The American Heritage Dictionary, 3rd. ed., in a synonym note at represent notes that “The central meaning shared by the verbs represent, delineate, depict, picture, and portray is to render a realistic image or likeness of.”; and defines simulate: “1a. To have or take on the appearance, form or sound of; to imitate.” The Oxford English Dictionary elaborates at represent: “… 2. To bring clearly and distinctly before the mind (esp. to another) by description or (to oneself) by an act of imagination. 4a. To show, exhibit or display to the eye; … 4c. Of pictures, images, etc.: to exhibit by artificial resemblance or delineation.”; and at representation: “… 2. An image, likeness, or reproduction in some material or tangible form; in later use, esp. a drawing or painting (of a person or thing). 6a. The action of presenting to the mind or imagination; an image thus presented; a clearly conceived idea or concept.” Architectural representations are manifestations of the root concepts of representation: both being like the proposed building, simulating it, and representing that proposed building to the mind or imagination of others.

Architecture is big stuff. It is not possible to pre-build buildings to get an idea of what they will be like. So, ‘real world’ architecture is miniaturized in models and framed in perspective images and other types of drawings. While virtually all of our senses other than sight are taken out of the equation of advance portrayal, the representation conventions of architecture which have been relatively stable for 2000 years remain the best shot we have at conveying advance understanding. The barriers to full understanding are formidable: the miniature model and 2D/3D drawings do not possess, nor at present do virtual reality CAVES, the capacity for us to move through or around, to smell, to hear a place, to feel its material presence. The difficulties recognized by Charlie Rose in presenting architecture in the medium of television with its limitations of the visual screen are compounded in projected works, for they do not yet exist and therefore one cannot go to them to have a full experience (Ivy, 2000, p. 214).

In spite of these constraints and the impossibility of bridging the gap between projected reality and representation of it, which is always edited and
organized from a particular conceptual position, the Western eye has for so long been accustomed to visual representations as a mimetic device through which to imagine fuller realities that these conventions have significant viability. The following comments by Catherine Ingraham, and David Levin help frame the problematic of representation/reality, a reciprocal circumstance that is always ideological in origination, and the dominance and value of vision for unlocking it:

... critiques of representation focus on fundamental assumptions about the act of representation, in particular the assumption that mimesis (imitation of the world) is possible. By pointing to the ever-present structure of the frame, the lens, the word, the apparatuses of representation, this critique suggests that the 'world represented' is the only world, since it is impossible to know the world outside of its representation. On the one hand, we would not have the category of 'landscape' if it were not for its representation in photography, writing, drawing, planning, gardening, painting, mapping and architecture, and this representation is never free of ideological or mechanical equipment. On the other hand, we would not have the category 'real world' were it not for its contrapuntal relation to representation. ... In effect, we cannot coherently imagine a landscape free from the constraints of a frame. ... Once we become aware of the frame, which I am using here to cover a wide range of both ideological and mechanical governances, our assumptions about linear translation between the so-called 'world itself' and its representation become problematic. (Ingraham, 1991, p. 65-66; parenthesis and italics in original)

For those of us who can see, vision is, of all the modes of perception, the one which is primary and predominant, at least in the conduct of our everyday lives. This does not seem open to much debate. More problematic, however, is the narrative that argues for the domination, the hegemony, of a visual paradigm in our cultural history. Can it be demonstrated that, beginning with the ancient Greeks, our Western culture has been dominated by an ocularcentric paradigm, a vision-generated, vision-centered interpretation of knowledge, truth, and reality? (Levin, 1993, p. 2)

Despite the limitations pointed out by Ingraham regarding the ideological framing of representations, the ethical virtue of architectural representations remains their capacity to communicate, to provide sufficient accurate portrayal that the Western eye can 'read,' and from which the 'mind's eye' can more fully imagine a reality.

Precursors in Architectural Literature

The dual ethical values of virtue and duty with respect to practice skill and accuracy and simulation for enhanced understanding in architectural representation are elements of many differing texts which speak to the architect's capabilities and obligations. The language of the texts is not merely that of contracts or convenience, it contains the sense of an ethical ought. This section outlines the depth, duration and reasoning applied to the issue of representation in the architectural literature. To begin, Vitruvius (1960) speaks of the skill to draw and then the ethical right regarding such mastery:

An architect ... must have knowledge of drawing so that he can readily make sketches to show the appearance of the work he proposes. Geometry, also, is of much assistance in architecture, and in particular it teaches us the use of the rule and compasses, by which especially we acquire readiness in making plans for buildings and grounds, and rightly apply the square, the level and the plummet. By means of optics, again, the light in buildings can be drawn from fixed quarters of the sky. It is true that by arithmetic that the total cost of buildings is calculated and measurements are computed, but difficult questions involving symmetry are solved by means of geometrical theories and methods. (p. 6)

... I think that men have no right to profess themselves architects hastily, without ... having climbed the steps of these studies ... (p. 10) (emphasis add-ed in both citations)

One may need to “show” appearance to oneself, but it is more likely the object is to “show” to others. This is confirmed later with the demand for accuracy with respect to solar orientation, shade and shadow, and measurements for costs. Moreover, Vitruvius proposes that one cannot ethically claim to be an architect without mastering these skills.

Medieval construction sites bear the imprint of construction pattern drawings etched into stone by
metal compass points, and 12th-C Villard de Honnecourt used his travel sketches of cathedrals under construction as vehicles of instruction. Medieval manuscripts show architects displaying models and drawings to kings and bishops, the decision makers of their day. Notes Erlande-Brandenburg (1995, p. 72) regarding Medieval master builders and architects: "When building ... architects had to produce two kinds of documents: one would enable the patron to visualize the final result, and the other would guide the different various workers."

In the 1450's the issues of accuracy, understanding design proposals, and the representation of value arise in these next two references. The first is from Alberti; the second from Article 10 of the Statute of Strasbourg Stonecutters presented in Erlande-Brandenburg:

For this reason [the recounted story of Caesar taking down a building for either not having understood its design or fickleness] I will always commend the time-honored custom, practiced by the best builders, of preparing not only drawings and sketches but also models of wood or any other material. These will enable us to weigh up repeatedly and examine, with the advice of experts, the work as a whole and the individual dimensions of all the parts, and before continuing any farther, to estimate the likely trouble and expense. ... In this way it is possible to form a clearer and more certain idea of the design... The difference between the drawings of a painter and those of the architect is this: the former takes pains to emphasize the relief of objects in paintings with shading and diminishing lines and angles; the architect rejects shading, but takes his projects from the ground plan and, without altering the lines and by maintaining the true angles, reveals the extent of each elevation and side -- he is one who desires his work to be judged not by deceptive appearances but according to certain calculated standards. (Alberti, 1994, p. 34)

If a master mason [architect] has agreed to build a work and has made a drawing of the work as it is to be executed, he must not change this original design. But he must carry out the work according to the plan that he has presented to the lords, towns, or villages in such a way that the work will not be diminished or lessened in value. (E-B, 1995, p. 71)

Alberti speaks to "time honored" practices of the "best builders," which are central issues of ethical virtues: the best builders are those that are good in the ethical sense, exemplars of excellence; and practices through time the results of the virtue of working at them. Both Alberti and the Statute speak to accuracy of representation, and the value of what is represented to those involved -- the expectation is the virtue of integrity.

In the ensuing century two influential treatises, Serlio's which focused on drawing, and Palladio who speaks to models and drawings within a more comprehensive dissertation, address representation. The first two citations are Serlio (1982); then Palladio (1965):

In the second Booke, I will show in Figure, and by reason, as much of Perspective Art, that if the workeman will, he may declare his concept or purpose, by reasons and figure. In the third Booke, workmen shall see the Ichnographie [plans] ...; the Orthographie [sections/elevations] ... The Scenographie or Scioraphie [perspectives] ... of the Buildings that are in Rome, Italie, &c. diligently measured, and set by them in writing, with the place where they are, and their names. (Bk. IV, p. A2)

So in this third Booke, you shall not only find, first the Icnographia, and then after the Orthoglyphyes, with part of the Sciographies of the most famous Antiquityes of Rome, Italy, and some of other places, but also of the most excellent buildings in our days, specially those that are made by Brantam, So that the Reader being well instructed in the aforesayd fourth Booke, ..., he may himself judge what is well or ill made, that at one time a man may, without any further labour, make a good and incorrigible piece of worke. (Bk. III, Author's Note to the Reader, n.p.)

Great care ought to be taken, before a building is begun, of the several parts of the plan and elevation of the whole edifice intended to be raised ... When those several particulars [the design: function, strength and beauty] have been duly examined upon the model or draught, then an exact calculation ought to be made of the whole expence, and a timely provision made of the money, and of those materials that shall seem most necessary, to the end that nothing
may be wanting, or prevent the compleating of the work. (Bk. I, Ch. 1, p. B)

Serlio mentions "declaration" which can only be interpreted as a public presentation of the appearance of a building. He goes on to make note of documenting ancient and modern buildings with the aim of education -- of the reader not only becoming instructed but capable of proposing buildings that are without flaw and that cannot be made better. Palladio invoking "care" and "ought" speaks to the virtue of the manner of representing buildings, again, for public judgment and understanding as well as cost.

Folding the span from 12th-C Honnecourt to late 16th-C Palladio brings us to the late 20th-C and Dana Cuff's classic inquiry into architectural practice. These selections focus on the reduction of ambiguity, simulation and the role of the perspective drawing:

The entire design process ... is intended to reduce ambiguity about the outcome. In practice, architect, client and consultant work together to create a building that will have the desired consequences and will avoid unforeseen negative consequences -- at least, they try to limit the range of surprises. But the finished building always does hold surprises that participants were unable to predict from simulations. ... A third characteristic of the design process leads to unexpected outcomes: the principal media (drawings, models and conversation) are simulations of the outcome. It is actually words and images that are negotiated under the belief that they determine the final form of the building. ... a client may understand the drawings as an internally consistent two-dimensional world without making a spatial connection between the drawings and the three-dimensional building they define. (Cuff, 1991, p. 96-97) (italics in original)

Plans, sections, and elevations, the conventional means to represent a building are difficult images for most clients to interpret. Much of the talk surrounding such drawings is meant to clarify what is in the drawings, but in the [example case] not until the architects drew perspective sketches did the clients grasp how the building would look. Models often serve the same function. (Cuff, 1991, p. 188)

It is representations and models of how a building will "look" that are most important for clients and others to understand a building proposal; the technical descriptions in elevations and plans are more useful for the professional team to take measure of, and to literally measure, the project.

With the ubiquitous presence of information technology (IT) systems and CAD in architectural education and practice, the press for near photographic realism in architectural representation is well underway. These quotes from the June 2000 issue of Architectural Record are typical of the expectations:

.. Digital Entourage provides invaluable libraries of CAD [computer assisted design] blocks and textures that represent licensed images of real, commercial products and materials in the architect's palette. The realism of any rendered image depends on the accuracy of these textures, surfaces, and objects. ... High quality, photorealistic rendering software [has become] easier to use. ... AccuRender3 is capable of accurate rendition of lighting effects in a space or around an object ... (Laiserin, 2000, p. 209)

Extranets [are] ... project collaboration systems that use Internet-related technologies. These allow project teams to share documents and messages without the inefficiencies of using paper or traveling to job sites. .... These European companies are all known for their object-based CAD systems, in which graphic elements on the computer screen are associated with a data-base of characteristics such as size, materials, fire rating, and so on. ... Revit is a parametric 3-D building modeler. It is the architectural profession's equivalent to the 'intelligent' modelers used by automotive manufacturers ..." The Revit system is a design tool that can be given design parameters that modify the design as certain other parameters are changed: equal-sized windows remain equal-sized even if a wall is made longer. Relationships between building parts are held constant; and a change in plan is matched automatically with a change in elevation and in 3-D perspective. (Novitski, 2000b, p. 205)

Current research at the Program of Computer Graphics at Cornell University, ... one of the world's leading laboratories in the this field ... focuses on three major areas: improving user interfaces to make architectural applications more suitable for designers; simulating the behavior
of light in space and understanding human visual perception system to refine rendering algorithms; and developing methods for improving image capture and the quality of image-based rendering. (Novitski, 2000a, p. 198)

While the language reflects the insider jargon of IT and CAD, its thrust is unmistakable: to render the most refined simulation of reality that is possible: not for the sake of the rendition itself (as in art) but in order to portray and communicate a design proposal. The ‘smart’ systems proposed like Revit -- those that also have technical attributes attached to images -- are simultaneously providing technical measure of a project.

For two thousand years, the public demands of architectural representation have been relatively stable: to portray designs as closely as possible to projected reality in order for them to be understood by the community of participants in the project; and to provide a vehicle with which to define the project in terms of construction technology, measure, cost, value, and experience. We are returned to the ethics of virtue in representational practices, and the duty to define with accuracy.

Social Criticism, Social Good and Architectural Representation

The impact of the dual ethical premises with respect to architectural representation cannot be over estimated. For, as Ingraham and Levin point out, even though problematic, the very practice of the mimetic representation and framing has prepared us for translation of them to/as reality. This section is a brief analysis of the drawing techniques of two social critics: Piranesi and Lebbeus Woods; and the New Urbanists who propose a vision for community building.

The proposition being explored here is that it is the ethical orders of representation (the virtue of simulation practices, and the duty to be accurate) that has lead to a virtually universal ability for the Western Eye to interpret architectural representations. Therefore, both the social critic and utopianists (Note 3) call upon simulation and realistic imagery as their medium.

Among the those using architectural representation as an instrument of social criticism we may include Piranesi (mid 18th-C), Jean Jacques Lequeu (early 19th-C), and Lebbeus Woods (late 20th-C). Piranesi remarked: "In truth ... anyone who does not see the use of [perspective], and its necessity in Architecture, does not yet know whence she draws her greatest and most substantial beauty.” (Robison, 1996, p. 12). What each shares is masterful draftsmanship, keen manipulation of form, a refined sense of architectural construction, and the ability to compose and render arresting images. These images are realistic in impression, and readily accessible to virtually any viewers: for their work shares to property of 'looking like ...' or 'being like ...' the known 'real world' while at the same time the forms are highly critical of their respective contemporary states of affairs.

In the mid 18th-C Piranesi was engaged in two ideological battles: one proposing Etruscan as opposed to Greek antecedents for Roman architecture; the other against Cartesian reason and order as the measure of truth and science (Note 4). Of his work between 1750 and 1762, the early and late states of three etchings in the second edition of the Carceri (Prisons) are what I wish to discuss: The Drawbridge, the Gothic Arch, and the Arch with a Shell Ornament.

Andrew Robison (Note 5) provides a concise critique of the changes from state to state of the etchings, wherein the ambiguities of perspective and spatial possibility in the early states, are re-worked in the later states until they are illusionary spatially impossible constructions. Elements are added in each, and certain existing elements are stretched or condensed, until there are multiple perspective tableaus, coherent within any one sector of the etching, but not coherent in sum -- or rather, which appear coherent in sum but which are spatial impossibilities. Jennifer Bloomer (1993, p. 117-122) citing works by Jean-Jacques Lecercle and Marguerite Yourcena, proposes “déline,” using the state of reason to methodically structure the vestige memories of delirium, the delirium of the architect’s dreams, for the shift in the etchings.

Piranesi had a knowing audience, one that understood both architectural perspective and the philosophical arguments of the day. He has used the rational system of perspective to create an illusory reality: the later stages of the Carceri can be reasoned as an explicit attack on reason, using rationality as the mechanism!

Lebbeus Woods

For Lebbeus Woods Architecture is a Political Act (1992) “anarchitecture”, and he continues that polemical position in Architecture and War (1993). His work in these two books and exhibitions attacks political hierarchies, fixed order, erasure and restoration (of war-torn ruined places to their pre-

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Politics of construction: who designs, who owns, who inhabits? The architect who designs building types is a pyramid builder, who follows the hidden forms already inscribed by those expressing and dominating others, and who benefit by conventions, conformity, and all adherence to the rules of the normative. The inhabitants are on the lowest level of the game. ... In this project [Underground Berlin] the subversion of an existing authoritarian system of social control [the Berlin Wall] is accomplished by architectural means. (1992, p. 8 & 50)

And of war zone projects for Sarajevo:

War levels the old cities in much more than a physical sense: it reduces their multilayered complexity of meanings to one-layered tableaux embodying the monological, monomaniacal structure of hierarchy ... When they are rebuilt, on what form of knowledge will it be, and to what -- and whose -- ends? (1993, p. 8)

Woods goes on to critique the approaches of replicating historic neighborhoods, or of demolition and totally new construction: both approaches are erasures of history and memory, and thereby diminish the city and life. He proposes an architecture of “scars” that fill-in and "heal" the damage without erasure.

In these works, Woods uses constructed perspectives, photomontages, plans, sections, elevations and models to portray his alternative approaches to city building. They are compelling because of their virtuosity: structural and material construction is legible, scale is accurate, the level of craft is high, the forms are alien to the world we now know, but they fit into it -- become a part of the tapestry of a truly diverse accommodating landscape. For his critique of hierarchical normative power, and urban erasures, Woods adopts the most conventional of architectural representations: he wants his message understood in terms that cannot be dismissed. They cannot be dismissed because as Piranesi’s etchings, they adopt the majority convention to critique itself. Both Woods and Piranesi depend upon the established ethical virtue and duty of representation (simulation and accuracy) that has lead to a universal reliance upon, and an ability to interpret, conventional architectural representations.

The New Urbanists

Among the utopianists of the past two hundred years we might edit a list to include the speculations of Claude-Nicolas Ledoux, Tony Garnier’s Cité Industrielle, LeCorbusier’s urban visions including the Voisin Plan for Paris and La Ville Radieuse, Broadacre City by Frank Lloyd Wright, and the New Urbanists of the past two decades. Each of the proponents has adopted models, realistic perspectives, plans and other realizable drawings, conventions that can be clearly and easily understood to articulate their proposals -- not only for the physical plans, but also the manner of inhabitation they imply. With Garnier, we see an explicit choice to reject the drawing conventions of the Ecole des Beaux Arts with their colorwash vividness and richness, for a more spare style, but nonetheless one that clearly shows in perspective the character and quality of the buildings and spaces of the Cité.

While the spatial/social program of the New Urbanists has been sometimes hotly debated, the New Urbanists have used a rich array of planning and zoning covenant drawings (drawings of technical accuracy), color rendered perspectives, city planning maps, and written codes to articulate their proposals. With the advent of easily used digital CAD media, they have begun to show realistic build-out options with differing urban design and development codes, e.g., their Riviera Beach project (Katz, 1994, p. 134). The New Urbanists, no less than Piranesi and Woods, rely upon the same dominance of vision and the historically enduring ethical properties of architectural representation to enable the most persuasive presentation and direct understanding of their positions.

Concluding Comment

The public purposes of architectural representation are multi-valenced: to define cost, to determine contracts, to assess impacts, to propose alternative modes of construction and dwelling, to critique the status quo, to guide construction, and to enhance understanding and decision-making. However, at the core are: the ethical virtue of practices that hone representational skills as one of the principal capacities of the architect; and the ethical duty to define and present accurately the appear-
ance, character and quality of a design. We in turn rely upon and 'read' those ethical representations to more completely imagine the full experience of a place.

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Figures:

All of the figures in the paper are ceiling photographs taken by the author.
1. The Louvre Pyramid, Paris; I. M. Pei, architect
2. Sackler Gallery, London; N. Foster, architect
3. Exeter Library, Exeter, NH; L. Kahn, architect
4. Peoples' Hall, Chongqing, PRC; archt. unknown
5. HEC (College of Business), University of Montreal; D. Hangenau, archt.

Notes:

1. A major contemporary exponent of virtue theory applied to practices is Alasdair Maclntyre: see After Virtue: A Study in Moral Theory. Early roots are in Aristotle in the Nicomachaen Ethics discussions of production, teché, and craft as modes of knowledge and the good.
2. See Ned Cramer (1999), interview of Max Protetch regarding architectural drawings, finished renderings and process drawings as art, as beautiful objects in themselves; gallery and museum display pieces. Also Robin Evans (1998), commenting on Daniel Libeskind's Chamber Works drawings: “The architect can travel light. His work does not now involve him in the tedious entropy of getting something built, nor in the dubious politics of improving social conditions, nor in the appalling sycophancy of client sucking, nor in reconstructing his personality to fit his job. ... Libeskind...by cutting out the aspects of architecture that are brimful of meaning -- its all too vivid meaning as a social, economic and political process of construction -- ... allows for the construction of lines in the sky.” The antithesis of the purposes here!
3. The compound "u+topia" is "no place"; the prefixed compound "eu+topia" is "good place"
4. Bloomer (1993, p.70): “Piranesi looked about and found, to his horror, the impassive cage of the Cartesian-Newtonian universe descending onto his world. ... With it [the Campo Marzio Ichnographia] Piranesi shatters history and geography, time and space. ... Il Campo Marzio... was a polemical weapon in the eighteenth-century battle over the origin of good architecture. With the forms it represents, it names Etruria, not Greece, as the source of Roman architecture.”

References:


