Ethical Premises in Student Proposals: Well-Being, Virtue and Change

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I have decided to give something back to the community from which I came. ... My goal is to design a space for the young adults of East Joliet. ... This space is to provide security ... will have the rooms and technology to teach new and different skills, a daycare, counseling for youths looking to get out of trouble, a help-room for homework, a meeting room where parents can join forces to help clean up the community, and a safe outside area where all can just hang out with their friends without the fear of trouble from an outside source. ... this building should have a safe haven feeling to it.
                                                                        – E.G., 1998[1]

Any closer scrutiny of the last hundred years [1865-1965], however, shows that the new architecture is not a result of the wish for *l'Art pour l'Art*, but has sprung from the strivings of idealistic individuals to make man's environment *better*.[2]

CASE STUDY BACKGROUND

Architecture students believe in the future — a future that architecture can help shape for the better. The opening quote is one among dozens of student proposals from the past four years that directly express the coming together of social benefit, architectural theory and ideology, and design of the environment. This case study examines the ethical implications of student proposals for semester-long independent projects carried out during the final year of a five-year Bachelor of Architecture program. As students pursue their work during the semester the pitfalls of making a one-to-one inference from 'program-to form-to social good' are laid bare, but their basic objectives do not shift very far from initial intentions. The efficacy of the degree to which architecture can address larger social consequences, or the possibilities and difficulties in any one type of rationalist, functionalist, expressive or critical model of architecture are not the central concern of this paper: the manner in which student proposals reveal an ethical idealism is.

The objectives of the senior independent project are presented to the students at the end of their fourth year of study. The following are the introductory remarks from that presentation:

The Independent Project studio provides a forum for student-initiated work — the opportunity for you to reflect and act upon the issues and ideas that have engaged you during the last few years. You will be selecting, refining, or discovering and articulating new issues that will frame the basis for your autumn Senior Project — an independently defined and student-driven architecture project. Rigor in these pursuits is part of the responsibility we all share in contributing to the intellectual life of the discipline of architecture.

The case study identified three principal conceptual frameworks, each of which has ethical dimensions, that the students used in devising their projects: 1) architecture that possesses a socially beneficial program (an ethics of human well-being); 2) mastery of qualities and capabilities internal to the discipline of architecture (a virtue ethics); and 3) utilizing aesthetics and cultural criticism as generative foundations for a critical architecture (an ethics of change). The data examined for this study come from 129 student proposals spanning four years. (See Table 1)

ARCHITECTURE AND DOING GOOD

Architecture students are not alone in their desire and belief that architecture is or can be beneficial to society, or that it can be a vehicle for critical examination and resolution of societal concerns. This has been a common thread in architectural discourse for two millennia that begins with Vitruvius and proceeds through the modern movement and its post-modern critique. The arguments for architecture's social contribution, its power for betterment, to change social conditions, continue to the present.

The following comments from Alberto Pérez-Gómez and Thomas A. Dutton and Lian Hurst Mann are recent perspectives on the theme of architecture's ethical role. In his introduction to *Architecture Ethics and Technology*, Pérez-Gómez observes:

... I would argue that the common good has always been a primary concern in architecture. ... Because of their irrepressible desire to disclose a symbolic order, architects have traditionally sought to provide individual existence with a built world that reflects the purpose of social institutions and of life in general. ... Far from being merely an aesthetic or technical concern, architecture seeks to set human action within an "appropriate" frame, fulfilling this reconciliatory role despite man's tendency to control and dominate fellow human beings and the environment.[3]

In their introductory essay to *Reconstructing Architecture*, Dutton and Mann remark:

Given that architecture — practice and discourse — is always social, the central questions we address in this book are these: What constitutes "the social project" of architecture in the current historical context? What critical discourses and social practices advance such a project? Can architecture be reconstituted in terms of a new social project? ... The social project adopted by the modern movement in architecture pledged generations of architects to the betterment of society. As a particular form of modernity's program of social progress, this social project had a distinct character: it broke with

TABLE 1: MEN, WOMEN, MINORITIES AND SOCIAL DRIVERS								
Year*	# Of Propos- als**	Women	Social Driver	Men	Social Driver	Minor- ity***	Social Driver	Total Social Driver	Yotes
Sp 94	10	2	1	8	3	2	0	4	
Sp 96	32	8	6	24	8	5	4	14	
Sp 97	41	15	5	26	14	5	3	19	
Au 97	16	6	1	10	7	3	3	8	
Au 98	30	11	8	19	7	5	5	15	
Totals	129	42	21	87	39	20	15	60	
%		32.6(b)	50(a)	67.4(b)	43.7(a)	15.5(b)	75(a)	46.5(b)	

Table 1: Men, Women, Minorites, and Social Drivers.

architecture's traditional service to the status quo and committed architectural practice to the emancipation of humankind. ... Within the array of responses to the crises of modernity, and to the undisputed failures within modernism in architecture in particular, reside practices that specifically seek to change the political status quo of power relations in daily life.[4]

In *Building Community,* the Carnegie Foundation study of the status of architectural education and practice commissioned by American architectural organizations, similar perspectives are presented by the non-architect researchers and authors of that report, Ernest Boyer and Lee Mitgang:

The nobility of architecture has always rested on the idea that it is a *social art* — whose purposes include yet transcend, the building of buildings. Architects, in short, are engaged in designing the physical features and social spaces of our daily lives, which can shape how productive, healthy, and happy we are both individually and collectively. ... We found, in short, a powerful wellspring of social idealism among architecture students, practitioners and educators ... we propose four specific priorities where the efforts of the profession might be creatively channeled to enrich the mission: *building to beautify; building for human needs; building for urban spaces; and preserving the planet.* (Authors' italics)[5]

The preceding comments are not isolated thoughts. The beneficial contribution of architecture to human welfare is ingrained in its discourse. Architecture students are acculturated into this domain – architecture's essentially ethical premises. Working method, invention of form and image, links between form and aesthetics and inhabitation meaning and memory, and the technological and material realization of architecture are not identified in these ethical premises. Those internal disciplinary concerns are the means by which architecture attempts to address the ethical premises.

THE THREE FRAMEWORKS OF THE STUDENT PROPOSALS

There appear to be three major frameworks which the students used in establishing their proposals. The identification of these frameworks, which manifest themselves upon review of the project proposals, is not proposed in order to break apart heterogeneous

integrative architectural action, but rather to serve as an aid for insight into various distinctive bases for action that the students developed. The first is that of socially beneficial projects — specifically initiating their project by identifying a public or institutional type: Alzheimer's clinic, hospice, daycare center, community center, affordable housing, etc., which has a socially "good" intention. The second is a broad category of various ideologies internal to the discipline of architecture: problem solving methods, adaptive reuse, green architecture, and constructional technology, etc. The third, a smaller group, could be characterized as work in the area of aesthetics and cultural critique: drawing upon literature, film, social and cultural criticism, the demands of architecture as an art, the ethos of architectural production, etc.

In the second and third frameworks, the issue or topic was determined and "program" was used as a vehicle via which to explore the question. In the first, the "social program" was the driving framework of the investigation which called the other two into play to support the effort. Table 2 lists the various driving frameworks and a limited number of subcategories. As noted, each of these frameworks has ethical dimensions to it.

Socially Beneficial Programs: The Ethics of Human Well-Being

These projects, of which the opening quote is an example, stemmed from student considerations of architecture's explicitly public, communal and institution constructing character. Several factors contributed to defining this framework: the degree to which the student asserted a beneficial communal change (to draw a community together, to access information; to provide places for youth activities); the particular social 'ill' that was being dealt with (homelessness, dementia, dying); and the degree to which the program statement identified categories of personal and communal well-being (care giving, leisure, worship, learning, concern for children). Women and men were close in the ratio of each that initiated 'social program' projects, 50% and 43.7% respectively. For minority students, the ratio was much higher: *75%.* The following two proposal excerpts provide vignettes of student concerns among those who elected 'social programs'.

E.G., **Au1998.** Returning to E.G.'s community center proposal. He is well aware that the issues he was addressing through his community center were larger endemic difficulties. He opens contrasting the west and east sides of Joliet:

TABLE 2: PROPOSAL CONCEPTUAL FRAMEWORKS		
Ideological Foundations 54/129 (41.9%)	Beneficial Social Premises 60/129 (46.5%)	Aesthetics/Critical Processes 15/129 (11.6%)

'Problem solving' approach 10
  applied to various types of
  use
Technology/energy 3
Technology/materials 5
Technology/const. systems 6
Technology/media 3
Technologyiother 4
Ecological design 2
Historic reuse basis for 13
  urban renewal/memory/
  framework for interior work
 	
There were 8 additional projects
of one each:
  dwelling/inhabitation
  design methods
  transit system components
  form making: *feng shui*
  small buildingsithe aedicular
  urban design 2
  house/home/dwelling
	Community centers 7
	Recreation Center/YMCA 3
	Youth center/youth camp 2
	Daycare center/childs 4
	  learning centers
	Czech Cntr/Scottish Center 2
	Churches/Mosque 5
	Hospice/rehab/assisted living 3
	Alzheimer's center 2
	Housing/affordable 3
	Housing/tradition & change 2
	Housing/urban/other 3
	National parks and sites 2
	  ecologically sensitive
	  constructions
	Other parks and leisure 3
	Public space/streets for 3
	  communal gathering
	  social amelioration
	
	There were 16 additional social projects
	ranging from a comrnun ity school,
	travel oasis,
	community library, public farmer's
	market, to a women in architecture
	center, etc.
		Generative beginning points:
		
		Kerouac kick writing 2
		Surrealism
		Nomadic/Marginalia/Secret 3
		Inscription from action traces
		Film/Guattari, Deleuze
		Body and motion/extension
		Book/cover and contents
		Piano/machine/mechanism
		Inscription Machine/Kafka/
		Geist/Century of Progress
		Secret/margins/metaphysic 2

Table 2: Proposal Social Frameworks

... from the west, you will see thecommercialestablishments, retail stores. nice neighborhoods, and many subdivisions. And in the northwest section of the city, it isn't uncommon to see individual families tucked away within a vast number of trees to exclude themselves from the rest of the town. ... I myself am from the east side ... you would stand a better chance of seeing gas stations, rundown laundramats, small badly maintained food shops, and liquor stores. Instead of finding welcoming smiles on everyday people, you are more likely to find drug dealers, gang members, prostitutes, etc.

The site for his project has been strategically selected. After addressing some of the negative features of the site, he turns to:

... the positives: Each of these [rundown] buildings can be remodeled and brought up to code to be used by the citizens of the neighborhood. An even bigger positive is the fact that the high school is about two blocks north of the site, the grade school and junior high school are three blocks to the south of the site and there are two churches. one right across the street north of the site and one across the street south east of the site. Plus, being in the middle [of the east side] everyone east of the river will have access to the center."

E.G.'s catalytic and symbolic architectural proposal is social and political. E.G. himself is "of' the community, he is not an "external other" with a paternalisticgoodintention.The Center is to beaphysical place. with the "feeling" of a "safe haven," "without fear of trouble from an outside source." Within that haven, are the social goods of education, assistance with child care, counseling, recreation, etc.

Members of the community are "citizens," the location is "accessible to everyone;" the "parents join forces" to "clean up the community." Located strategically, it reinforces other community constructing institutions: the churches and the schools. Place making and modes of being are interwoven; they extend beyond the particulars of the project to the larger social project of communal well-being.

J.R., Sp1997. On December 29, 1890, a U.S. military troop massacred 300 Lakota Indians at Wounded Knee Creek. South Dakota. Under the auspices of the State of Dakota, the Tribal Council and the National Park Service, the site is proposed as a National Memorial Site. J.R.'s project was the design of a visitors' center to the Memorial:

Because of the Massacre there, Wounded Knee is both a profane and a sacred site. It is obviously profane because of the horrible crimes committed there. It has become sacred because of what the Massacre meant to all Native Americans. It marked the end of a way of life they had known for hundreds of years, a way of life for which they had fought for decades. As a threshold. an introduction, to this site, the facility must clearly address this duality. I intend to explore these issues in terms of perception (by different cultures), including psychology and spirituality."

Among others J.R. turns to James Freed's reflections on the Holocaust Memorial: "I have to make a building that allows for horror, sadness. I don't know if you can make a building that does this, if you can make an architecture of sensibility. Because that is what it is." The site is within Lakota tribal lands. It will be visited mostly by outsiders — *wasicus*: "whites." J.R. poses several ques-

tions for himself, among them:

> How does one design a building that helps to educate the visitor about the indigenous culture as well as the events, in order to impart a sense of just what was lost there? How does one design a building that has emotional impact to the visiting experience? Should one use tribal symbols, images and forms directly, or is it better (culturally and architecturally) to translate cultural sensibilities and traditions into architectural materials, uses and forms? How does one design a "threshold" to a site that is simultaneously sacred and profane, and that accommodates and informs many different cultures (such as indigenous, dominant and government administration to name a few)?

J.R.'s project highlights one of the lacunae in American mythos — the destruction of a people and a way of life, to make way for the dominant white European culture. The symbolic, memorializing, political, and educational content of that circumstance is made manifest in the physical place Wounded Knee, and through the proposed architectural threshold to it, the visitors' center. The place is a memorial, incorporates dualities, and requires a pilgrimage to visit (it is not on the normal Interstate travel routes). In this way, the nearly ubiquitous "type" "visitor center," is engaged via critical inquiry with social purposes.

E.G.'s and J.R.'s proposal statements, profoundly ethical in their intentions and commitment to social affirmation, do not have a firm position regarding the architectural form and image their projects may finally take, the meanings that may adhere to them — though they do have positions of what metaphysical character should be felt. To address the social and ethical agendas outlined in 'social projects' through architecture demands a mastery of the intrinsic disciplinary aspects of architecture itself. This leads to the essential invention of architecture, *giving form,* which calls into play the full range of knowledge from within the discipline of architecture, its history and theory, material and constructive techniques, methodologies strategies and values for developing and judging form, its semiotics, its

transcendental nature beyond accommodation of pure function.

Disciplinary Premises from Architecture's Ideologies: The Ethics of Virtue and Excellence

This brings us to the second framework of projects that emerged, those that are rooted internally to the discipline: design methods, technology (in many different manifestations), the 'problem solving' ethos, perspectives toward the environment, etc. In discerning this framework, there were several considerations: first, was the degree to which the driving premise was a mechanism or method (construction systems, the nature of materials, a design method); second, the degree to which this mechanism or method was applied to and became a determinant in shaping architecture; and third, the degree to which it was universalizable, in other words, was transferable and not dependent upon project type (e.g., reuse of historic and existing structures was included here because of the general approach to conservation, to reuse, to using existing architecture as a scaffold for many different purposes; none of the projects was 'socially driven' by preservation and restoration motives for instance). Students designed projects as vehicles to explore particular architectural issues and to improve their capabilities in addressing them, not the other way around, as was the case in the preceding work where a social issue was first identified with architectural means following.

Projects in this realm of investigation have ethical import in the sense clarified by Alasdair MacIntyre — the virtue and excellence in role and context, of practicing the essentials, the matter of architecture.[6] One might credit Vitruvius with setting forth the first formulation of architecture's unique internal demands of "durability (structural stability, capacity to weather, to endure); convenience

(utility, purpose, commodious accommodation); beauty (delight, pleasure)."' Even if one disagrees with Vitruvius' formulation, architecture's internal capacities have been argued through them, and thus they have the type of ethical expectations of virtue and excellence noted here.

K.W., **Au1997.** This proposal is typical of those using existing buildings as a ground for their work. After discussing the decline of the urban core and the residual infrastructure and built fabric that is available for reuse and urban renewal, K.W. continues:

> ... the key concern in my investigation of adaptive-reuse of buildings is not so much the resurrection of the inner-city. Rather, it is an issue of what possibilities are opened to myself as a designer by reusing an existing structure. ... Using an existing structure as a guide for limits and restraints opens great opportunity for exploration. . The relationship between interior and the building facade also becomes an intriguing issue, along with looking at the existing building as a box or shell to hold and promote what is within ... In summary, my intention in the investigation of adaptive-reuse in an urban situation is to push the design past the stereotypical building restoration. ...The issues I want to address are: to discover and use an existing building as a place of origin for a modern [of our time] design, to look at the building as a shell holding and expressing the architecture within, and to seek the opportunity to explore architectural relationships between elements within an existing building to their fullest potential.

Having decided that the strategy for the semester is an investigation of insertions and reprogramming of existing construction, the "program," a children's art center, served as a guide to the scale and site for the project. The actual site selected, an abandoned inner city train commuter station, served K.W.'s purposes by being of a manageable scale, referential to the city's history, and readily accessible.

While the program for the project may fall into those of 'social benefit', the true determining purpose of the exploration is re-inhabitation of existing architecture and urban areas with contemporary demands — a mode of re-design that is faced by architecture. This is directed toward a refinement of personal skills (virtue and excellence), modes of expression, and exploring the formal dialectic between the new and the existing, an ethic of design practices for K.W. with implication for future projects.

M.M., **Sp1997.** "Manifestation of Time on Surfaces: A Map of Existence," is the title of M.M.'s project, which has been included in the sub-category 'material technology', a study of the 'matter' of architecture. Beginning with an analysis of "skins ... their elasticity, permeability, decay, and renewal to create a balance", their capacity for "protection and sustainability", and the continuing cycle of "decay and renewal," M.M., building upon and extending Mostafavi and Leatherbarrow's *On Weathering: The Life of Buildings in Time,* constructs a parallel of:

> aging within the environment to the aging of buildings with connections between human skin, earth skin, and architectural skin. Using the skin as a metaphor of surface portrays a surface as a living organism within the environment. Surfaces do not exist separately from the interconnected conditions of nature. ... My intentions are to perform full scale explorations, challenging issues of assembly, application, and materiality of surfaces with in a given space or site. Anticipating and expressing how they are effected by the passage of time, and how they should be treated or maintained.

The project selected, the site of action, is a competition for a movable wall system. How could such a prosaic problem be reconciled with the deep poetics of the proposition? Because it is a *timeless* proposition that applies to any architectural problem. The

"program" in this proposal is a vehicle for exploring "manifestations of time" and their "mapping and marking," one of the continuing debates in architecture, one of the ultimate extensions of Vitruvius' "durability." M.M.'s commitment to the depth of the enterprise is shown in his precedent examinations, a "study on moveable wall systems that already exist ... everything from the cardboard boxes of the homeless to the finely crafted sliding paper screens (Shoji) of the Japanese," and his simultaneous registration for two advanced seminars, one titled "Notes of the Depth of Surfaces" and the other a material investigation "Building Matter(s)," thus proposing a deep structure, a singularly focused semester-long investigation.

These two projects demonstrate that there is ample room in the mining of 'traditional' concerns of architecture, enduring internal disciplinary matters, for new exploration. Those explorations construct an ethos of design approach, and shape the ethical foundations of the choices to be made in design quests. As with socially beneficial programs, the ethical virtues and qualitative excellence of architectural practices so constructed do not prefigue a "given form" to design proposals, they inform the form giving. Invention of form, its synthesis, its material and poetic condition remains the *sine qua non* of architecture.

Aesthetic and Critical Generative Foundations: The Ethics of Change

Arguably the most intense proposals, both from the stated ambitions of the projects and the well-formed work ethic applied in their pursuit, have been those that stepped outside the normative structures of architecture's ideologies, or of "social" architectural programs. Starting from an architectural base, they call upon literature, social cultural and political criticism, philosophy, aesthetics, painting, other modes of critical consideration of the human condition, and synthesizing modes from beyond architecture. These require a transformation into architectural modes of production, they are not analogs to be lifted directly. The struggle for form, content, autonomous architectural practices, and meaningfulness of architectural production is very much inoperation. Their ethical force comes from confrontation with the critical appraisal of the contemporary human condition, considerations of the nature of humanity, and the proposing of architectural approaches to revealing and/or addressing those conditions. l will look at one of the fifteen projects that adopted this approach.

M.S., Sp1994. This project stems from M.S.'s investigations of the secret, secrecy, the marginalized 'other' that emanates from the secret, of those "marginal" persons and actions that surround the order producing normative in architecture. It is an exploration of architecture as a text and zone of action for multiple, inclusive, perhaps subversive reading, and inhabitation. His sources are literary and explicitly critical of the normative quality usually associated with architecture.

> There is this idea, this notion, **SECRET,** that found its way to me this past summer while reading a book edited by Lynn Hunt entitled *The Invention of Pornography: Obscenity and the Origins of Modernity, 1500-1800.* This book is a collection of essays ... which examined how ... pornography emerged as a literary practice and a category of knowledge intimately linked to the formative moments of Western modernity and the democratization of culture.

After noting Walter Kendrick's *The Secret Museum,* an analysis of the secret museums for objects of pornography and their intersection with writing about prostitution, M.S. continues:

> When I consider the possibility of a less talked about ramification of the event of secrecy to be exclosure and not disclosure, refusing to admit, consider or include, it becomes easy to sense a **MARGINAL** resonance associated with the event. This topic of the **MARGINAL** as theory and conceptual

structure has been of interest. . I find it to be most evident in my treatment of the **PROGRAM** that is distributed [in traditional studios]. I seem to have consistently viewed this document as a vehicle that could be used to allow or justify the convenient rejection, elimination, or barring of potentially important social considerations, which in effect creates a margin. Instead of simply heeding the specific requirements I skirt along at its periphery in search of the marginal, that would in turn be given power toward the generation of the architecture.

M.S. selected an actual site, one that has "a resistance due to its own marginality as residue from a planning effort," the result of which is that it is the back of several different front conditions. A place inhabited variously by "a group home for male sex offenders, an adult novelty shop, rental storage units (one of which is consistently used for habitation by one person), and a car wash" as well as having served as a "loop" for "certain youth." 4 railroad track runs through the space which creates additional possibilities of "other." His conceptual program is presented as blank poetry which incorporates physical elements, personal observations, and factual narrative history of the site:

<div align="center">

a
FENCE
(Adult Novelty Seeker)
a
DEATH MARKER
(The Body of the Murdered)
a
FLIGHT PLATFORM
(Runaway Youth and Sex Offenders)
. . .

</div>

This "program" operates as both a literal reminder of the actual history of the site, and a metaphoric structure with the capacity to be read and experienced in many manners for the architectural interventions that are eventually proposed. he entire framing of the proposal is in ethical terms.

The obverse of the community affirming "social programs," this proposal and many of the others that operate in this aesthetic and critical generative framework do not accept the prevailing normative structure of what constitutes a proper social good. They cannot because such normative programs, in the view of M.S. and others, also creates a residual. a marginalized inhabitation that the normative does not address. Normative programs contain repression of so-called "disorderliness." Nor does M.S. begin with the apparatus of architecture. "technology" or "energy conservation," etc., because these modes also presume a certain way to frame architecture. Thus, for M.S., to some degree a re-invention of architecture, a counter-reading is necessitated, one that has a continuous balance between that of the "proper" and "marginal" order. It is played out in the larger inhabited designed environment he proposes; it is not an autonomous subject; architecture is socially instrumental — focused on change rather than stability (the avant-garde position).

CONCLUDING NOTE

The 129 proposals were framed as architecture students, educators and practitioners are wont to do — in terms of program, or technology, or design investigations. Virtually none of the proposals discusses the form the architecture should take, only its metaphysical intentions. Form comes with the effort at giving form: designing. In 129 papers, the word "ethics" was never used, nor were the traditional language and argumentation of ethics. And yet, viewed with an eye to examining ethical intents as discerned in the three frameworks identified here, the projects are implicitly ethical. In their proposals, the students aspire to the most classic of ethical ideals: to do well personally, with virtue and excellence, and to do

"good" at large in society either by affirming positive social institutions or by revealing social disjunction and affecting it through their medium: architecture. This implicit ethical depth can become an explicit criterion for developing architectural research and project proposals, and for critiquing the resultant work.

NOTES

[1] Quote from a student project proposal. The student identities in this case study will remain anonymous, referenced only by initials and year.

[2] Christian Norberg-Schulz, *Intentions in Architecture* (Cambridge: MIT Press, 1965), p. 19. The italics are Norberg-Schulz's.

[3] Alberto Pérez-Gómez, "Introduction," in Pelletier, Louise, and Alberto Pérez-Gómez, ed., *Architecture, Ethics, and Technology* (Montreal & Kingston: McGill-Queens University Press, 1994), p. 3.

[4] 'Introduction: Modernism, Postmodernism, and Architecture's Social Project," in Thomas A. Dutton, and Lian Hurst Mann, ed., *Reconstructing Architecture: Critical Discourses and Social Practices* (Minneapolis: University of Minnesota Press, 1996), pp. 3-5.

[5] Ernest L. Boyer and Lee D. Mitgang, *Building Community: A New Future for Architecture Education and Practice* (Princeton: The Carnegie Foundation for the Advancement of Teaching, c. 1996), pp. 3-4, 32, 34.

[6] Alasdair MacIntyre, *After Virtue,* 2nd, ed. (Notre Dame: University of Notre Dame Press, 1984), Chap. 14 "The Nature of Virtues," the contextual meaning of virtue and practices used by MacIntyre. P. 187: "By a 'practice' I am going to mean any coherent and complex form of socially established cooperative human activity [creating an inhabitable places] through which goods internal to that form of activity [buildings and landscapes] are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive, of that activity [e.g., Vitruvius' standards of utility, durability and delight or those of Modernism], with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved are systematically extended. ... Bricklaying is not a practice; architecture is." *(Material in brackets is added)*

[7] Vitruvius, *The Ten Books of Architecture,* (1st C, BC), trans. Morris Hicky Morgan (New York: Dover, 1960), Bk. I, Chp. III, ¶2. See Jennifer Bloomer's critique in "Big Jugs," *Fetish; Princeton Architectural Journal,* Volume 4 (1992): 72, 86.

TABLES

Notes to Table 1:

* The independent project is completed in one semester: Spring "Sp" or Autumn "Au." The project was switched from spring to fall semester of the fifth year in summer of 1997.

The departmental archives did not have all of the proposals for each year. None were available for 1995.

*** There were a number of "drivers" that served as the primary instigating issue for the students. Among them were ideological perspectives such as green architecture, preservation, design methods, design technologies, and aesthetic foundations for which "program" became the vehicle through which the issue could be examined. The term "social driver" as defined here includes projects that were shaped explicitly around a project type, or societal or human condition that was to be addressed through the program, supported by other ideological positions. Projects that had two or three principal drivers were not given a category.

**** Minorities represented in the student sample included African-American, Asian (Chinese, Japanese, Korean and Malaysian), Hispanic, and African/Asian. There were no Native Americans. More than half of the minority students in this sample emigrated to the U.S. from their home countries; English is a second language for them.

a.   Ratio of the preceding number: 21142; 39/87, etc.

b.   Ratio with respect to the total number of proposals: 421129; 841129, etc.