

Value Engineering *or* Architecture and the Pursuit of Happiness

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Competition between the motives of profit-making and the benefits of cultural stewardship defines the social and political context within which the economic value of architecture must be debated. Under the guise of cost benefit analysis, advocates of short-term profit and long-term investment each vie for the support of public policy and the conscience of private action, while in architecture, value engineering and life cycle costing have become euphemisms for this dialectic of economic determinism. And yet, it seems, it has always been so. Even Vitruvius acknowledges the existence in his time of the shoddy, the wasteful, and the ill-conceived, the work of charlatans and profit-mongers who give the profession a bad name.¹ Vitruvius is also quite clear, however, about which characteristics he believes constitute the added-value of architecture and which comprise the ethos of the profession. *Firmitas*, *utilitas*, and *venustas* are not only standards of architectural quality; they are also public measures of private virtue—the patron’s, the architect’s, the builder’s—in the stewardship of tradition and the renewal of cultural values.

In the United States of the late twentieth century, issues of tradition and cultural value are often either deemed irrelevant to the dynamics of popular culture or else are subsumed by the rhetoric of conservative politics. These issues are, nonetheless, essential to the formulation of any critical practice of architecture. They penetrate to the core of architecture’s relevance as a discipline while testing its continued economic viability as a profession. This paper takes-up a few of these questions: *How has our awareness of the value of architecture shifted from the ancient to the modern era? How have architects’ own attitudes toward the utility of architecture changed? What positive social values might architecture embody and promote in an age of ephemeral materialism?*

Keeping these questions in mind, this paper pursues several inter-related lines of inquiry which chart the simultaneous transformation of architectural and cultural values. One trajectory follows the persistence of Vitruvius’s triad of architectural qualities—*strength, utility, and grace*—in modern discourse through an examination of his *Ten Books*

on Architecture along-side the compiled versions of the AIA’s *Architect’s Handbook of Professional Practice*. The second track focuses upon the enlightenment vision of Thomas Jefferson’s *life, liberty, and the pursuit of happiness* as articulated in the Declaration of Independence and as it has been transformed through the advent of modern technology, consumer capitalism, and popular culture. Finally, attention to the legal standards for the protection of the *health, safety, and welfare* of the public in the constitution of the modern profession provides a frame for assaying the critical forces propelling the transformation of architectural practice at the end of the millennium.

THE VITRUVIAN TRIAD AND CHANGING CONCEPTS OF ARCHITECTURAL VALUE

Among the utterances and aphorisms of architects and philosophers, perhaps none is more enduring than that of Vitruvius regarding the essential qualitative measures of architectural value—his familiar triad of *firmitas*, *utilitas*, and *venustas*. Though Vitruvius barely even elaborated upon the terms, they seem to have assumed a life of their own over the course of two millennia—as apodictic truths, as sliding signifiers, as lightning rods for contrary theses.

Vitruvius’s first citation of these criteria falls unceremoniously in his first book following the description of the parts or departments of architecture. Of these, building, he says, “should be so carried out that account is taken of strength, utility, grace.”² While strength would seem to be a proven virtue in building, guided by the counsel and craft of long experience from which acceptable practices derive, the other two, utility and grace, appear to emanate from the realm of principle, are self-evident but abstract and therefore must be illustrated by appropriate example. Of the architectural principles which Vitruvius enumerates, *propriety* and *economy* seem most related to his concept of utility, linking issues of precedent, character, and orientation with those of material efficiency and functional appropriateness. Grace, on the other hand, seems best characterized by the principles of *order, arrangement, proportion, and symmetry*. Thus,

visual beauty from form and composition is linked to the creative elegance of solutions through acts of invention and imagination.³

Elsewhere, Vitruvius ascribes credit for the attainment of these virtues, or the lack thereof, to the various parties involved with the work. If the project attains an overall magnificence, Vitruvius maintains, then the owner, by whose expenditures the work was accomplished, deserves recognition. If the workmanship is fine, then the builder must be lauded. “But,” Vitruvius contends, “when [the building] has a graceful effect due to the symmetry of its proportions, the site is the glory of the architect. ...[For] the architect, when once he has formed his plan, has a definite idea how it will turn out in respect to grace, convenience, and propriety.”⁴ Though Vitruvius contends that public acclaim should be the architect’s due reward for such attainments, he bemoans the fickleness of fate in so often bestowing public approbation based upon the architect’s social influence. “Yet we must not be surprised,” he says, “if excellence is in obscurity through the public ignorance of craftsmanship.”⁵

Although Vitruvius is certain of the measures of architectural virtue, he seems resigned to their sporadic application and to the public’s inability, due to lack of education, to distinguish the good from the bad. And he bemoans the ethical morass of his time, of architecture being practiced by those untrained and unqualified. Thus rationalizing his own lack of notoriety, he justifies his treatise-making and entrusts his principles to posterity. The positive model thus portrayed is of the architect as principled practitioner, a champion of architectural value, and a proponent of public virtue. But a shadow model is portrayed as well: of the architect as unscrupulous pretender, as social opportunist, and as a threat to public propriety.

In our own time, and continuing the tradition of Vitruvius, the various professional, pedagogical, and polemical purposes ascribed to the *Ten Books* have been assumed by a plethora of other handbooks, manuals, specifications, and treatises. Among these, the *Architects Handbook of Professional Practice* serves an encyclopedic and indexical role in portraying the complexities of contemporary architectural practice within the techno-political context of the late-twentieth century. Since its inception in 1917, the handbook has evolved from a quaint compendium of practice tips and standard forms to a four-volume, comprehensive survey of professional topics, project procedures and tools, and contractual documents. Over the course of the twelve editions, one can detect both a superficial adherence to the Vitruvian principles of architectural value as well as an evolving attitude toward the professional and ethical standards that society demands.

The preface to the early editions of *The Handbook of Architectural Practice* invokes the Vitruvian triad indirectly by reference to the duality of art and science within architecture. Regarding art, the authors write that “[i]t is as a fine art that architecture has established itself in the hearts of men ... To good building, architecture adds qualities of the imagina-

tion. It disposes of masses and details in ways that arouse us by their beauty, power or dignity. It writes the record of civilization.”⁶ This view of art as the added-value of architecture is balanced by comments about the role of science within the architect’s craft. “The Architect,” they write, “though primarily an artist, must still be the master, either in himself or through others, of all the applied sciences necessary to sound and economic building, sciences that have generated and that attempt to satisfy many of the exacting and complex demands of modern life.”⁷

In contradistinction to the purpose or effect of architecture, the role of the architect is made explicit in terms of professional virtue, for, according to *The Handbook*, “[t]he Architect, ... by bearing himself as worthy of his high calling, gives to his art the status of a profession.”⁸ In another reference which combines performative criteria for architecture with standards of professional performance, the sway of Vitruvian principle in *The Handbook* is made evident through an invocation against involvement in the erection of “unsafe, unsanitary, inconvenient, or unsightly structures.”⁹ Clearly, ancient and early-twentieth century opinion about professional responsibility coincides on the interest of the public trust.

To all of these characteristics of architectural value and professional virtue which the architect is bound to uphold, we must add the expectation that the cost of the building must fall within pre-ordained limits. Even Vitruvius rendered an opinion here, citing ancient Greek laws pertaining to the architect’s personal liability for excessive cost over-runs.¹⁰ *The Handbook* of 1927 states that “[o]ne of the Architect’s most serious tasks lies in estimating the probable cost of the work.”¹¹ Given the unpredictability of price due to the volatility of market forces, however, *The Handbook* seems less sanguine than Vitruvius in claiming this professional obligation and maintains that “. . . the Owner must in justice forbear hasty judgment if the Architect fail to display the gift of divination.”¹²

The *Manual of Office Practice for the Architectural Worker* published in 1924 and adapted from the office manual of the firm of McKim, Mead, and White, links issues of construction cost to those of quality, describing a set of relative values for durability of construction, and even degree of ornamentation, based upon building use. Echoing Vitruvius’s specifications for the requirements of defensive, religious, and utilitarian structures,¹³ a descending scale of construction quality and maintenance costs commensurate with durability is suggested for the buildings devoted to monumental, residential, and commercial functions. Of the latter, the manual flatly states that “[i]n all buildings of commercial character the element of income return is the most important factor. . .,” while anticipating the logic of life cycle costing by asserting that the architect should have “. . . always in mind a minimum maintenance cost over a long period of years.”¹⁴

So notwithstanding the pre-Depression era caveats, by the time of the 1943 edition of *The Handbook*, an AIA document

promoting “The Value of an Architect” confidently states that “[a] good Architect often saves the Owner a sum much larger than his fee.”¹⁵ The 1958 revision goes even further in claiming that “[the architect’s] contribution to the work enhances the value many times more than the amount of his charges. Architectural service does not cost—it pays.”¹⁶ At the same time that claims for the profitability of architecture arise, commitment to the traditional Vitruvian triad appears to wane. The 1943 edition refers hesitantly to architecture’s “claim to beauty” while emphasizing other issues of comfort, health, building knowledge, planning efficiency, and attractiveness. The 1958 edition dispenses altogether with references to beauty or even to attractiveness, substituting instead an uncertain notion of “distinctive design” while emphasizing “good building, economy, and efficient building operation.” In an era of increasing programmatic and technological complexity, these AIA documents portray a profession within the throws of modernization, striving to promote its relevance and intrinsic economic value through problem-solving expertise and professional service. Concomitantly, re-orientation toward the precepts of cultural modernity precipitated the widespread adoption of such engineering criteria as efficiency and economy of means as substitutes for the classically predated concepts of architectural beauty and civic propriety.

Over the intervening decades since the second world war, the debate about architectural value has, depending upon one’s point of view, either escalated or gone away. Certainly, concern for the initial and life cycle costs of buildings has intensified the quest for objective measures, in economic and environmental terms, of the relationship between durability and maintenance. The focus upon utility and cost, however, seems to be at the expense of any clear postulate about the efficacy of beauty understood in any but the most subjective of terms, or else lodged within the domain of functional, legal, or economic factors. In the face of the difficulty of defining beauty, commercial values have displaced art as the added-value of architecture.

What *is* value? Lawrence D. Miles, the engineer at General Electric credited with the development of techniques of value analysis and value engineering, has succinctly and confidently addressed this bothersome question. Miles defines value as “the minimum dollars which must be expended in purchasing or manufacturing a product to create the appropriate use and esteem factors.” He defines use value as “[t]he properties and qualities which accomplish a use, work, or service.” Esteem value is defined as “[t]he properties, features, or attractiveness which cause us to want to own it.” Value engineering, then, is concerned with the optimization of the use and esteem values of a product at the lowest possible price.¹⁷ A gross analogy with the Vitruvian triad would suggest that firmness and commodity might be comfortably subsumed within Miles’s notion of use value, thus assigning beauty to the bounds of esteem.

The design and building professions’ adoption of value engineering concepts for purposes of cost control in con-

struction is well-established today. Though the cost-benefits of such savings strategies for building are clear, efforts at engineering the esteem value of architecture are less easy to identify, much less to evaluate. Evidence from the current home-page of the AIA suggests that one such means for enhancing architecture’s esteem value may lie within marketing strategies that focus upon what consumers of architectural services want. In a posting reminiscent of the aforementioned circulars of the 1940’s and 50’s, the web-page panders to potential clients that they should hire an architect because: “The Architect Solves Problems,” “The Architect Can Save You Money,” and “The Architect Can Make Your Life Easier.”¹⁸ Problems solved, money saved, easier life—in other words, architecture will give you what you want, and it will make you happy. So if, like any other commodity, architecture must be sold, based not so much upon its contribution to public virtue as upon its satisfaction of personal desires, then the esteem value of architecture truly lies in its contribution to the pursuit of happiness.

REVOLUTIONARY POLITICS AND CONFLICTING CONCEPTS OF SOCIAL VIRTUE

Now, dragging Thomas Jefferson into this discussion may seem far-fetched, but the evidence would appear to suggest otherwise. Volumes continue to be written about Jefferson’s intellectual intentions with regard to the wording of the Declaration of Independence and its influence upon subsequent social, political, and economic developments within the United States. And given Jefferson’s amateur status as an architect, like the ones Vitruvius praised in his own time as “those owners of estates who, fortified by confidence in their own erudition, build for themselves,”¹⁹ it does not seem unreasonable to speculate about the coincidence of Vitruvian and Jeffersonian principles. In short, is it possible to see any parallel correspondence between, on the one hand, Vitruvius’s *firmitas*, *utilitas*, and *venustas*, and on the other hand Jefferson’s *life*, *liberty*, and the *pursuit of happiness*?

Conventional accounts of the philosophical genealogy of the Declaration of Independence locate the intellectual antecedents of Jefferson’s construct of life, liberty, and the pursuit of happiness in the ideas of John Locke, most notably from the *Second Treatise* of his *Two Treatises of Government*. These writings lay out a rationalization, through the appeal to natural law, of the basic human characteristics of freedom, equality, and independence. Within this conception of human nature, the individual is, according to one interpreter, “essentially a material being, ruled by the private senses which he shares with no one, guided by the pleasures and pains of this world, and motivated primarily by a desire for continued life, or ‘self-preservation.’”²⁰ From this primal motivation for self-preservation, therefore, are derived the natural rights of humankind, namely life, liberty, and property.

In Locke’s scheme, the emphasis upon the individual, and upon individual self-interest, outweighs the imperative for

social conscience or virtue, which Locke considers to be an acquired rather than an inherent human trait. By nature independent, humans join together for pragmatic reasons. They form political organizations, for example, in order to preserve their individual freedoms against the threat of external forces. Thus, we understand the analogy that Jefferson constructs for the joining of the thirteen individual colonies to oppose the tyrannical impulses of George III.²¹

Much has been made of Jefferson's substitution of the phrase "pursuit of happiness" for Locke's notion of "property," even though Jefferson's ideas about property as the vehicle for economic independence seem to conform to Locke's own attitudes toward the psychological motivation of happiness. Locke suggests that at the root of so many diverse and deeply-held moral convictions among differing peoples is a common human aspiration toward happiness. This concept of happiness is not limited to the immediate pleasures that obscure through sensation the memory of past pain; rather, he maintains, true happiness derives from the consciousness that one has amassed the means in the present, in the form of property and the power over it, to render pleasure in the future and thus to avert future pain.²² The social implications of these concepts are devastating, for they assume that humans are naturally solitary, that they join together only under common threat for purposes of self-preservation, and that, beyond safeguarding the individual from the infringements of others' actions, objective standards for the conduct of human affairs cannot transcend the realm of subjective choice.²³

During the late eighteenth and early nineteenth centuries, extension of these same enlightenment concepts into the philosophical domain of architecture resulted in strikingly similar conclusions. Especially in the theoretical writings of J.-N.-L. Durand, a pedagogue of the French *École Polytechnique*, Alberto Perez-Gomez has observed the emergence of a new value system founded upon complementary principles: "love of well-being and aversion to pain."²⁴ Perez-Gomez notes that:

"[t]his materialistic premise became the basis of the ethics and aesthetics of technology, and it still underlies the most popular historical and ideological conceptions inherited from the nineteenth century. Only after Durand would it become important for architecture to provide 'pleasure' or that it be 'nice' rather than truly meaningful."²⁵

Durand's transformation of Vitruvius is equally profound. In place of the traditional triad, Durand substitutes an emphasis upon economy and efficiency, stressing the conformance of architectural principle to the reason inherent in natural law. According to Perez-Gomez, "[t]he system of values in architecture was thus reduced to a scale between pleasure and pain. Value could be 'measured' as it approached ideal efficiency and maximum pleasure."²⁶ As for beauty, Durand rejected all ornamental embellishments to architecture, save those derived as a result of the dictates of

convenient and economical disposition of the plan. Again according to Perez-Gomez, "[t]his system of values lays at the origin of the still prevalent emphasis on comfort over meaning in contemporary architecture."²⁷ Such explicit foreshadowing of the precepts of value engineering, of the optimization of "use value" along with the linking of "esteem value" to the whim of personal desires, confirms, I believe, certain parallels between enlightenment notions of liberty and our own departures from Vitruvian principles of architectural virtue. Is this really Thomas Jefferson's contribution to the formulation of an American architecture?

Not necessarily. Revisionist historiography since the 1960's has challenged the unity of Lockean interpretations of Jeffersonian intent in crucial matters surrounding the Declaration of Independence. While acknowledging Jefferson's deep debt, verging on plagiarism, to Locke's *Second Treatise*, those critics of the Lockean view point toward Jefferson's equal erudition on the concepts of classical virtue. Besides the connoisseurship of classical architecture which predated his European travels, Jefferson was obviously well read in classical philosophy and literature. A difficulty thus arises when one tries to reconcile the pure revolutionary zeal for the rights of the individual expressed in the *Declaration of Independence* with his post-revolutionary commitment to the nurturing of republican social values within the fledgling democracy. In contrast to the imperatives of individual liberty emphasized by Locke, classical social ethics, especially as expressed by Aristotle, insists upon a standard beyond merely not harming one's neighbor; rather, it was incumbent upon the individual to assume the moral responsibility for the improvement of the plight of others within the framework of objective standards either revealed by God or else developed through collective agreement.²⁸ For Locke, human beings were naturally solitary and independent; for Aristotle, man was a social and political animal.

Evidence for Jefferson's adherence to a concept of happiness contrary to the pecuniary interests of Lockean property may be found in his own writings. For example, in a 1788 letter, Jefferson advises his nephew that "[h]ealth, learning, and virtue will insure your happiness; they will give you a quiet conscience, private esteem and public honor."²⁹ This advice would seem to echo Aristotle's equation of the purpose of politics, that is "the highest good attainable by action," with the concept of happiness.³⁰ Jefferson's notion of the pursuit of happiness transcends the private pleasure of Lockean property to include the public acclaim of good works. So too, as accords to Vitruvius, who wrote that "... all men, and not only architects, can approve what is good."³¹

Whether Thomas Jefferson owned a copy of Vitruvius prior to the commencement of the work at Monticello is unclear, but it is known that he did possess an edition of Palladio's treatise which would have nurtured his familiarity with the more ancient text.³² The preface to Palladio's treatise articulates a clearly classical concept of social virtue, describing "... a man, who ought not to be born for himself

only, but also for the utility of others.”³³ And in his *First Book*, Palladio refers immediately to the Vitruvian triad of architectural virtues, commenting “[t]hat work therefore cannot be called perfect, which should be useful and not durable, or durable and not useful, or having both these should be without beauty.”³⁴ Is it too outlandish to suggest that for Jefferson, classical notions of architecture were metonymically linked with enlightenment concepts of human nature; that preservation of life was dependent upon a building’s durability; that liberty was sympathetic with principles of utility and propriety; or that the pursuit of happiness could be lodged in the aspiration toward beauty and its public acclaim?

The oscillation and cross-pollination between republican and liberal political ideals, in this way, is exactly what some authors claim Jefferson contributed to the formation of the new constitutional system: revolutionary and libertarian against the concentration of central power, classically republican in the advocacy of local participatory democracies.³⁵ How this *rapprochement* between individual freedom and social conscience has evolved over the course of two centuries can largely be described in terms of intertwined technological, economic, and popular cultural developments, each of which has exerted its transformative power upon the discipline of architecture as well. In society at large, while technology has enhanced individual freedom and well-being through strides in, among other fields, transportation, communication, construction, and medical science, it has also contributed to the degradation of the environment, the fragmentation of experience, and the instrumentalization of value. Economic self-interest has bred opportunity and independence as well as discrimination and dependency. And the influence of popular culture stretches the bounds of human imagination even while engendering a profound cultural homogeneity.

Architecture has been swept by these tides as well. Jefferson’s ideals of governance—life, liberty, and the pursuit of happiness—over time and with the implementation of the Tenth Amendment to the U.S. Constitution, have translated into the public virtues and personal protections of *health, safety, and welfare*. The establishment of the state-regulated profession of architecture in the United States has begotten the legal safeguards, regulatory bodies, and collateral organizations which constitute the framework of contemporary architectural practice. Thus, the trajectory which has led us from the Vitruvian tradition of *firmitas, utilitas, venustas* to the contemporary legal standard of health, safety, and welfare is fraught with contradictions. By accepting technological, functional, and economic criteria as defining the limits of its legal, and thus civic, responsibility, the architectural profession has unwittingly promoted private, commercial interest as the one standard for its public validation. The public virtue ascribed to Vitruvian beauty, which remained at least credible as a private motive for the Jeffersonian pursuit of happiness, has assumed a decidedly Lockean character in the linkage of public welfare with the

pursuit of private wealth. The *art* of architecture, that transcendence of mere utility which defined architectural value from ancient times, is thus reduced to the esteem of fashion or the rhetoric of formal and theoretical preoccupations.

But if Vitruvius’s simple algorithm of value has not survived unscathed, neither have the values engineered by Jefferson. Jefferson’s post-revolutionary commitment to local republics and decentralized economies has simply not prevailed. Instead, his principled appeal to the pursuit of happiness through public virtue has instead been taken as a justification for self-indulgence. This profound misreading of Jefferson lies, I believe, at the heart of many national dilemmas, and it contributes to the crisis of value which the profession of architecture endures. While health, safety, and welfare suggests the broad bounds of a public trust, it is, in the end, only defined by so many private interests.

HEALTH, SAFETY, AND WELFARE AND THE REFORM OF ARCHITECTURAL VALUE

In their recent report on architectural education and practice, Ernest Boyer and Lee Mitgang promote the development of an enriched mission for the architectural profession through what they call “a more generous reading of the familiar mandate of ‘health, safety, and welfare’.” The four priorities which they identify for the revival of architectural value include “building to beautify; building for human needs; building for urban spaces; and preserving the planet.”³⁶ These are all lofty aspirations which appeal to our moral sense, to our sense of public virtue and the architect’s responsibility, in the tradition of Vitruvius, to champion what is good. But these challenges also implicitly admit our failures in this regard, registering the detrimental effects of technological and economic determinism, and the accompanying cultural relativism, which have characterized the last century of American progress and the evolution of the architectural profession. Ironically, in a study commissioned by a profession in the throes of an identity crisis, anxious for a new marketing angle to enhance its economic competitiveness, what Boyer and Mitgang have called for is a return to beauty and a sense of public virtue. We must understand that this is a conservative call, not a utopian one. And while it may not be antithetical to the promise of an easier or more profitable life, it *does* imply that architects must align themselves with noble public causes which transcend the transient motives of private profit. It implies that the value of architecture must be measured in terms of human happiness and fulfillment. Given the prevailing dominance of material and economic interests within both the public and private spheres, one must wonder whether Boyer and Mitgang are merely dreaming, or whether they are scheming to shift the debate?

Whether the legal basis for the architectural profession—as it currently exists within the realm of health, safety, and welfare—is sufficient motive for principled stewardship of

the American landscape, or whether a new standard must be applied to the definition of architectural responsibility, is not really at issue. What *is* at issue is whether a unifying social mission generated from *within* the profession can adequately satisfy external demands for an accounting of architecture's value. Such a strategy can only succeed, one thinks, if the debate *can* be subtly shifted to link the terms of individual profit with the wages of social virtue. History suggests that over-emphasis upon the utility and profitability of architecture as the justification for personal aesthetics has, in the long run, only diminished the profession's public esteem. While modern society may seek ethical reassurances through the logic of cost benefit analysis, and corporations seek pleasure through the recording of quarterly profits, individuals still seek comfort through their evolving cultural traditions—traditions which, even when debased, ameliorate the pain of technological existence.

At the end of the millennium, the pursuit of happiness is sated in surprising ways. At one extreme, new performance standards for architectural education and practice stress the craft consciousness of constructibility; the democratic virtues of accessibility; and the environmental and economic ethics of sustainability as recuperations of modernity—in effect, a new trinity of architectural values integrated through the powerful new instrumentality of computer control. At the other extreme, pop-metaphysics reigns supreme through direct appeal to the public's latent and nostalgic desires for a more meaningful, a more beautiful sanctuary in the world. The "new urbanism" and feng shui are but two manifestations of this post-modern sensibility. Could it be that our contemporary anxieties about the added-value of architecture might be absolved by such a simple proposition: that the true value of architecture is that it can make us happy?

We are all—willing or unwittingly—participants in and custodians of a rich cultural tradition. Being part of tradition does not mean blindly imitating the past or adhering to old ways; nor does it mean merely discounting innovation and change. Rather, being part of a tradition means finding value and hope in what endures. Quotidian existence perhaps suggests that *nothing* lasts long or perseveres, but this too is but a paradox of Heraclitan proportions, that our temporal ephemerality is itself a permanent condition. What we are about, in striving for the mastery of architecture, is the constitution of an abiding knowledge of what is good within what is built.

Few schemes of architectural value seem so clear or evocative as Vitruvius's *strength, utility, and grace*, yet so many of our economic preoccupations today seem aimed at their absolute negation. Neither does the legalistic basis for practice, for upholding the *health, safety, and welfare* of the public, seem sufficient to the task of extending the mantle of a broader, cultural responsibility. Somewhere in-between these two, however, somewhere in both time and thought, America's own muse of architecture and enlightenment articulated a radical vision rooted in tradition. Thomas Jefferson's declaration of independence was also a paean of

inter-dependence—his life, liberty, and the pursuit of happiness mediating between lofty aspirations and specific expectations in public as well as private matters. Today, architecture is inextricably bound within this web of aspiration and expectation, where our ability is tested and where our intentions are weighed. While accepting the responsibilities of form, we are challenged to resist the commodification of experience and to oppose the exploitation of the environment. And while we are bored with fashion, we still hunger for change. So, while focussed on imparting to building the requisite value that our professional knowledge and skills allow, today I think we as architects must aspire to an even stricter standard. While echoing the Vitruvian triad, pursuing the Jeffersonian ideal, and recognizing our sacred responsibilities, we must bring all the verve and imagination and judgment we can spare to the task before us: to uphold the enduring values of a common tradition which each of us, alone, must strive to reinvent.

NOTES

- ¹ Marcus Vitruvius Pollio, *De Architectura*, trans. Frank Granger (Cambridge, Massachusetts: Harvard University Press, 1983), Book VI. Preface. 5-6.
- ² *Ibid.*, Book I. Ch. III.2.
- ³ *Ibid.*, Book I. Ch. II.1-9.
- ⁴ *Ibid.*, Book VI. Ch. VIII. 9-10.
- ⁵ *Ibid.*, Book III. Preface. 3.
- ⁶ American Institute of Architects, *The Handbook of Architectural Practice* (Washington, D.C.: AIA, 1927), 11.
- ⁷ *Ibid.*
- ⁸ *Ibid.*
- ⁹ *Ibid.*, 17.
- ¹⁰ Vitruvius, Book X. Preface. 1-2.
- ¹¹ *Handbook* (1927), 44.
- ¹² *Ibid.*, 45.
- ¹³ Frederick J. Adams, *Manual of Office Practice for the Architectural Worker*, (New York: Charles Scribner's Sons, 1924), 52-53.
- ¹⁴ *Ibid.*
- ¹⁵ American Institute of Architects, *The Handbook of Architectural Practice*, (Washington, D.C.: AIA, 1943), Appendix S.
- ¹⁶ American Institute of Architects, *The Handbook of Architectural Practice*, (Washington, D.C.: AIA, 1958), A 7.03.
- ¹⁷ Lawrence D. Miles, *Techniques of Value Analysis and Engineering* (New York: McGraw-Hill Book Company Inc., 1961), 3.
- ¹⁸ American Institute of Architects, "Why You Should Hire an Architect," in *A Beginner's Guide to Architectural Services* [web page], 1989; URL: <http://www.aia.org/beginnd.htm>, [Accessed 13 January 1997].
- ¹⁹ Vitruvius, Book VI. Preface. 6.
- ²⁰ Garrett Ward Sheldon, *The Political Philosophy of Thomas Jefferson* (Baltimore: Johns Hopkins University Press, 1991), 9.
- ²¹ *Ibid.*, 45-52.
- ²² Thomas L. Pangle, "The Philosophic Understandings of Human Nature Informing the Constitution," in *Confronting the Constitution: The Challenge to Locke, Montesquieu, Jefferson, and the Federalists from Utilitarianism, Historicism, Marxism, Freudianism, Pragmatism, Existentialism...*, ed. Allan Bloom (Washington, D.C.: The AEI Press, 1990), 49-58.

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- ²³ Sheldon, 13-14.
- ²⁴ Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science* (Cambridge, MA: The MIT Press, 1983), 299.
- ²⁵ Ibid.
- ²⁶ Ibid., 303.
- ²⁷ Ibid.
- ²⁸ Sheldon, 14-15.
- ²⁹ Ibid., 56.
- ³⁰ Ibid.
- ³¹ Vitruvius, Book VI. Ch. VIII. 10.
- ³² Frederick Doveton Nichols, "Jefferson: The Making of an Architect," in *Jefferson and the Arts: An Extended View*, ed. William Howard Adams (Washington: National Gallery of Art, 1976), 164.
- ³³ Andrea Palladio, *The Four Books of Architecture* (New York: Dover Publications, Inc., 1965), Author's Preface.
- ³⁴ Ibid., Book I. Ch. I.
- ³⁵ Sheldon, 17.
- ³⁶ Ernest L. Boyer and Lee D. Mitgang, *Building Community: A New Future for Architecture Education and Practice* (Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching, 1996), 31-47.