

# Re-visioning Design Education: A Third Culture Epistemology

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**ABSTRACT:** Traditionally, education has been theorized as existing within a binary system—education in the sciences and education in the humanities. If education in design can be viewed as a third culture within this realm then it will have teachers that teach design, students that learn design, and mechanisms in place to insure that the teaching and learning of design occur. Resultantly, one must ask: What does it mean to know as a designer? This question is one of epistemic significance, and, as such, begins to create the basis of a framework for design knowledge and design education. What, in a newly categorized third culture, can establish such an epistemic foundation; are the epistemic models available in the sciences and humanities appropriate for design education? How can education in design both situate itself in relation to the sciences and the humanities while providing for an epistemic foundation that allows for design knowing, design teaching, and design learning?

It is the intention of this paper to explore a qualitative and philosophical inquiry that positions design education; a position that interrogates a two-culture epistemology of education and begins to allow for a third culture whose knowledge is founded upon its own epistemic authority. This positionality will be addressed by exploring design education in relation to traditional education, outlining and engaging the problematic assumptions of the historical emergence of design education, and then proposing a return to the virtues of durability, utility, and beauty as proposed by Vitruvius in his foundational text *De Architectura* (1<sup>st</sup> Century BC). This return to Vitruvian virtue re-theorizes a design epistemology—and; therefore, a design education—that is once again grounded in the material, the contextual, and the experiential. By way of this Vitruvian re-visioning—a re-visioning that positions design education firmly within a pragmatic and material world—the content of that education is expunged from the store of tradition and made available to all learners through the uniqueness and complexity of individually lived experience.

**KEYWORDS:** design, education, epistemology, Vitruvius, pragmatism

## INTRODUCTION

Traditionally, education has been theorized as consisting of two distinct areas, two educational cultures with fundamentally different interests. These areas, broadly defined, are education in the sciences and education in the humanities. Nigel Cross argues that this ‘two culture’ binary has had significant influence upon “our social, cultural, and educational systems” (Cross 2006, 01). Further, he theorizes a third culture, education in design, that might act to validate what Bruce Archer noted as “the collected experience of the material culture, and the collected body of experience, skill, and understanding embodied in the arts of planning, inventing, making and doing” (Cross 2006, 01). This material culture is grounded in technology; the “synthesis of knowledge and skills from both the sciences and the humanities, in pursuit of practical tasks” (Cross 2006, 02). It is an education grounded in materiality, locatedness, and specificity that is arrived at through ambiguity and idiosyncrasy, as well as practicality and appropriateness.

It is the intention of this paper to explore a qualitative and philosophical inquiry that positions design education; a position that interrogates a two-culture epistemology of education and begins to allow for a third culture whose knowledge is founded upon its own epistemic authority. In theorizing this third culture, design education becomes a category of education that stands in contrast to the binary categories of science education and humanities education. Perhaps this position might best be viewed as a middle ground; an educational discipline that draws from both the humanities and the sciences without being fully subsumed by either.

If design can be viewed as a third culture within the realm of education, then it must have educational goals. As a category of education, it is implied that design education will have teachers that teach design, students that learn design, and mechanisms in place to insure that the teaching and learning of design occur. Viewed

from this standpoint, education in design becomes a question of knowing; a question of epistemic significance, and, as such, begins to create the basis of a framework for design knowledge and design education. In a newly categorized third culture, a new epistemic foundation must be established; the epistemic models available in the sciences and humanities do not appear appropriate for design education. Education in design must situate itself in relation to the sciences and the humanities while providing for an epistemic foundation that allows for design knowing, design teaching, and design learning. Theorizing such an epistemic foundation requires situating design education within the traditional binary system, exploring historical documents that indicate the knowledge base necessary for designers, understanding contemporary theories of 'design science,' and then turning to a philosophical relativism that might provide a disciplinary veracity to design epistemology.

## 1.0 EDUCATION AND KNOWLEDGE

### 1.1 Traditional educational practice

One means of understanding education in design as different from education in both the humanities and the sciences is to view them in relation to the aim of education in a more general sense. According to John Dewey, the aim of education in traditional systems consists in transferring "bodies of information and of skills that have been worked out in the past; therefore, the chief business of the school is to transmit them to the new generation" and to form habits in students that conform to past "developed standards and rules of conduct" (Dewey 1997, 17). Dewey's delineation of the aims of traditional education might be simplified to consist of transmitting knowledge about particular phenomenon, acquiring skills in appropriate methods of enquiry, and inculcation in particular values. Cross employs these three criteria to begin the process of situating design education in relation to the existing cultures of science and humanities educational practice (Cross 2006).

### 1.2 Knowledge assumptions

According to Cross, the knowledge basis of each of the three cultures—science, humanities, and design—are, respectively, the natural world, human experience, and the artificial world. Methods of enquiry for these cultures consist of: in the sciences: experimentation, classification, and analysis; in the humanities: analogy, metaphor, and evaluation; in design: modeling, pattern-formation, and synthesis. The values expressed by each culture include objectivity, rationality, neutrality, and a quest for 'truth' in the sciences; subjectivity, imagination, commitment, and a concern for 'justice' in the humanities; and practicality, ingenuity, empathy, and a concern for 'appropriateness' in design education (Cross 2006).

Given the binary nature established by the traditional two-culture conception of education—and the dualism established in their explication—it appears that these systems are grounded in what Carolyn Korsmeyer would term patriarchal assumptions; assumptions bounded within established gender binaries (Korsmeyer 2004). The dualism present within these gendered and binary assumptions can readily be critiqued through Korsmeyer's concept of deep gender, a concept that critiques mainstream viewpoints based upon a deeply embedded juxtaposition of the gender concepts of masculinity and femininity. Further, the third culture of education in design might be viewed as having a relation to Lorraine Code's establishment of an epistemic middle ground that does not privilege mainstream models of epistemic knowing. Code's work in feminist theories of knowledge construction, her call for a mitigated relativism, might perhaps provide the epistemic foundation for design knowing and design education.

## 2.0 DESIGN KNOWING

### 2.1 On Architecture

Prior to theorizing an epistemic foundation for education in design, it is beneficial to explore the question: What should designers know? This question might appear extremely far-reaching; however, the foundations of this question can be traced to one historical document. In the first century before Christ, Marcus Vitruvius Pollio composed *De architectura*—On Architecture—a text that has influenced over two millennia of design education and practice (Tavernor 2009). Vitruvius was a military architect and engineer serving in the Roman Legion under Julius Caesar and this volume was devoted to Augustus and conceived of to provide "recommendations so that by examining them, you yourself may become familiar with the characteristics of buildings already constructed and of those which will be built; in these books I have laid out all the principles of the discipline" (On Architecture, Book I, Introduction, 3). As this treatise also contains detailed accounts of technologies and other machines, it can be assumed that the term architecture for Vitruvius included all design fields—those dealing with the practical and appropriate creation of the artificial world. Vitruvius noted that "Architecture has three divisions; the construction of buildings, of sundials, and of machines" (On

Architecture, Book I, Chapter III, 1). As such, *De architectura* can be positioned as the first text concerning the discipline of design; the first document that designates what designers should know.

As a disciplinary study, there are many fields that Vitruvius holds central to a designer's understanding. "He should have a literary education, be skillful in drawing, knowledgeable about geometry and familiar with a great number of historical works, and should have followed lectures in philosophy attentively; he should have a knowledge of music, should not be ignorant of medicine, should know the judgments of jurists and have a command of astronomy and of the celestial system" (On Architecture, Book I, Chapter I, 3). Vitruvius spends the rest of the chapter in explaining the reasons that an architect must have an education in these particular areas of knowledge; without this "wide literary and technical knowledge" they could not have "reached the highest sanctuary of architecture" (On Architecture, Book I, Chapter I, 11). Vitruvius' 'wide literary and technical knowledge' appears to cohere to the knowledge associated with both education in the humanities and education in the sciences. "The architect's professional knowledge is enriched by contributions from many disciplines and fields of knowledge... this expertise derives from theory and practice" (On Architecture, Book I, Chapter I, 1).

There is, of course, no direct correlation to the contemporary conception of education in design other than the assertion that the designer must have a wide knowledge of both the sciences and the humanities. One might, however, interpret Vitruvius' assertion that all buildings—including all constructed technologies—"must be executed in such a way as to take account of durability, utility, and beauty" (On Architecture, Book I, Chapter III, 2) as the foundational conditions of design. The Vitruvian virtues of durability, utility, and beauty begin to differentiate design knowing from knowing in the sciences and humanities; these conditions of design position the discipline within a material world where the pragmatic awareness of the appropriateness of particular materials define the durability of things made, the function of those things—how they are used by humans—are conditions of their utility, and the particular aesthetic value we place on those items define their beauty. In Vitruvius' triad of design conditions—a material, practical, aesthetic, and located relativism—can be found the foundation for a contemporary design epistemology. It is now critical to explore why the epistemic value of Vitruvius' assertions has not remained the primary concern of knowing in design education.

## 2.2 The rise of Positivism

Vitruvius' treatise, considered as a nascent design epistemology—one which we might define as establishing both design education and practice—has not maintained its epistemic authority. The influence of his work can be traced through the Renaissance works and writings of Leon Battista Alberti and Andrea Palladio, the works of Sebastiano Serlio for the French monarchy, the seventeenth century works of Inigo Jones in England, and Thomas Jefferson's University of Virginia. It wasn't until 1792, that architectural education began to question the authority of Vitruvius. At this time, under the auspices of Jean-Nicolas-Louis Durand, architectural education at the *École Polytechnique* was "organized to create scientists and technicians with specialized skills" (Tavernor 2009, xxxiii).

This shift away from a practically and materially located understanding of design cohered to the shift toward rational understanding typical of late Enlightenment thought. The logic of mathematics, the technologies of building, and a belief in humankind's authority over the natural world began to assert more influence on design education than the Vitruvian call for durability, utility, and beauty. As a result of this shift, architectural expression, architectural practice, and architectural education became "the servant of a new kind of rationality and science" (Tavernor 2009, xxxiv). The practical, material, appropriate, human world of design became subservient to the objectivist rationality of scientific epistemology. The project of Modernity abandoned the Vitruvian ideal in favor of a positivist universalism coherent with the belief systems established in scientific ways of knowing.

This positivist understanding of design knowing continued into the early twentieth century. Theo van Doesburg noted that "Our epoch is hostile to every subjective speculation in art, science, technology, etc. The new spirit, which already governs almost all modern life, is opposed to animal spontaneity, to nature's domination, to artistic flummery. In order to construct a new object we need a method, that is to say, an objective system" (Cross 2006, 95). Six years later, Le Corbusier fully objectified the house as a "machine for living"; "The use of the house consists of a regular sequence of definite functions. The regular sequence of these functions is a traffic phenomenon. To render that traffic exact, economical and rapid is the key effort of modern architectural science" (Cross 2006, 95).

The sensual world of embodied humanity was replaced with the efficiency of the rationality of architecture in the machine age. These early attempts to transform design into a scientific project were continued in the design methods movements of the 1960's. According to Cross, "the desire of the new movement was even

more strongly than before to base design process (as well as the products of design) on objectivity and rationality” (Cross 2006, 95). The design methods movement reached its peak when Herbert Simon called for the development of “a science of design... a body of intellectually tough, analytic, partly formalizable, partly empirical, teachable doctrine about the design process” (Cross 2006, 96).

### 2.3 Critique of Positivist design

Simultaneous to the peak of the design methods movement, there was a critical interrogation of its scientific bias. Christopher Alexander rejected his earlier works on rational methods of design noting that the fields differed in that “scientists try to identify the components of existing structures, designers try to shape the components of new structures” (Cross 2006, 97). There was also a rising awareness that comparisons between science and design had been simplified and that there was, perhaps, more complexity in the distinctions between these two methodological endeavors than first assumed. Many thought that “perhaps there was not so much for design to learn from science after all, and rather that perhaps science had something to learn from design” (Cross 2006, 97). Cross further explicates this position when he notes that designers have “been seduced by the lure of *Wissenschaft*, and turned away from the lore of *Technik*; they have defected to the cultures of scientific and scholarly enquiry, instead of developing the culture of designerly enquiry” (Cross 2006, 06). A culture of designerly enquiry might be thought of as a middle ground culture based upon the disciplinary conditions articulated by Vitruvius—durability, utility, and beauty.

Contemporary interrogations of a design methodology founded upon scientific principles—on scientific ways of knowing and the romanticization of science as a paradigm for human life—have led to a destabilization of design knowing, and consequently, to design education. In light of this critique, I argue that it is not, perhaps, a science of design but, rather, an epistemological foundation of design that is necessary. In asking what we know and how we know as designers, we may be able to understand and justify approaches to how we teach design. An epistemology of design should lead to a more robust understanding of what it means to know as a designer and thus offer up theories and practices that insure the disciplinary veracity of design education; that insure that design education is substantially differentiated from educational practices in both the sciences and the humanities.

## 3.0 BINARY KNOWLEDGE SYSTEMS

### 3.1 Binary systems and design epistemology

One possible means to explicate an epistemology of design—of answering the question of what designers should know—is to turn to the feminist theories of Carolyn Korsmeyer and Lorraine Code. As noted above, the two-culture paradigm of education—the idea that education has two distinct areas of focus; education in the sciences and education in the humanities—allows a critique based upon the gender asymmetries illuminated in Korsmeyer’s concept of deep gender. In the sense that Korsmeyer uses the term, deep gender is a predominantly hidden system of value judgments that hinge upon “oppositional concepts and schemes of value whose meanings fluctuate in different historical and cultural contexts” (Korsmeyer 2004, 03). The sciences and the humanities might be seen as such oppositional concepts. These oppositions can be associated with the binary opposition of the culturally determined deeply gendered terms *masculine* and *feminine*. This cultured gender binary of masculine/feminine is associated with the intellectual binary of mind/body dualism that is at the heart of contemporary scientific epistemology.

### 3.2 Gender hierarchy and epistemic value

Within Korsmeyer’s deep gender analysis, the privileged and dominant binary *masculine* is associated with the Cartesian mind, and further, with rationality, knowledge, idealism, abstraction, and countless other seemingly neutral identifiers. For purposes of this analysis, education in the sciences seemingly coheres to—and should be considered congruent with—the *masculine* binary. In opposition to this privilege, the subordinate *feminine* binary is associated with the Cartesian body, with emotion, experience, pragmatism, materiality, and additional identifiers opposite those in the dominant category. Here, the subordinate binary to the sciences, the humanities, should be considered congruent to the subordinate *feminine*. In utilizing the gender categorization of these binary pairs, Korsmeyer holds that deep gender analysis exposes what might otherwise be perceived of as neutral ideas, statements, beliefs, systems, and cultures. In recognition of these gendered binaries, there is potential to move beyond the non-neutral exclusivity of these categoricals and pursue ideas, beliefs, and systems that celebrate difference, specificity, and locatedness.

It is within the oppositional values of these deep gender claims—claims identified within a hierarchy of dominant and subordinate—that Korsmeyer finds epistemic claims that support the continued oppression of women, other marginalized people, and ideas, beliefs, and epistemic systems that do not fall within the

dominant patriarchal category encapsulated under the conceptual binary *masculine*. Additionally, this patriarchally established hierarchy oppresses any additional viewpoints other than the two encapsulated under the binary *masculine/feminine*. The extreme dualism that defines the binary masculine/feminine, mind/body, and knowledge/experience—a binary system that excludes all that is ‘other’—appears, also, to encapsulate education in the sciences and education in the humanities and, as such, to exclude education in design as some thing ‘other’ to this binary pairing. The established binary viewpoint precludes all other viewpoints as meaningful to education; it precludes additional viewpoints from having epistemic worth. It is perhaps Korsmeyer’s critique of the patriarchal assumptions deeply embedded within the two-culture binary of education that will provide room for a third culture—for education in design—and thus for an epistemology of design. Such an epistemology cannot be grounded within the dualism sciences/humanities, but must create its own ground for epistemic authority.

## 4.0 THIRD CULTURE EPISTEMOLOGY

### 4.1 Education’s third culture

Employing Korsmeyer’s conception of deep gender to critique the exclusive position of a two culture educational system allows the possibility for a third culture in education—education in design. As this third culture is ‘other’ than the established sciences/humanities binary, it, necessarily, must establish its epistemic authority; it must answer the question regarding what designers know. It must claim a knowing that is not based upon an epistemology of science or an epistemology of humanities. This third culture might be viewed as having a relation to Lorraine Code’s establishment of an epistemic middle ground that does not privilege mainstream models of epistemic knowing. Code’s work in feminist theories of knowledge construction, her call for a mitigated relativism, might perhaps provide the epistemic foundation for design knowing and design education.

### 4.2 Epistemological relativism

Code describes epistemological relativism as a system that holds that “knowledge, truth, or even ‘reality’ can be understood only in relation to particular sets of cultural or social circumstances, to a theoretical framework, a specifiable range of perspectives, a conceptual scheme, or a form of life. Conditions of justification, criteria of truth and falsity, and standards of rationality are likewise relative: there is no universal unchanging framework or scheme for rational adjudication among competing knowledge claims” (Code 1991, 02). In accepting this definition of epistemological relativism, it becomes obvious that the individual knower is of ultimate importance relative to what is known. To know, in this sense, is to have knowledge of; to experience in a particular way—particular to the individual knower. This particularity is essential to a third culture epistemology of design.

From this position, Code begins to dismantle the priority given a masculine identity posing as scientific and epistemic neutrality. In forming this argument, Code also critiques the essentialism of positions that affirm distinct and stereotypical masculinities and femininities. These mainstream, deep gender binaries have a significant impact upon the epistemological warrantability of education in the sciences and education in the humanities. In Code’s critique of mainstream epistemology—one where the masculine/dominant objective epistemology of science subordinates the subjective epistemology of the humanities and completely excludes any other epistemic systems as unwarrantable—there is no expectation of a reversal of that epistemology, but rather, an expansion that recognizes subjective and other forms of knowledge for the individual and her beliefs, lived experiences, educational encounters, and practical knowledge about the world. This middle ground, pragmatist epistemology is, perhaps, the foundation of a design epistemology supporting, and supported by, Vitruvius’ conditions of durability, utility, and beauty.

Code further clarifies her position when she differentiates between relativism and what might be perceived of as a radical subjectivism that could reasonably lead only to skepticism or solipsism. She accomplishes this task by showing that the relationship of the terms objective and subjective need not be polarized to the extent that they are irrevocably oppositional. To make this claim she employs both a critique of Aristotelian contradictories and culturally embedded dichotomies that “have structured mainstream Anglo-American epistemology” (Code 1991, 28). Contradictories—as exclusive and binary oppositions—exclude any room for a middle ground; there can be no knowledge that does not cohere to a stringent logic based upon principles of either/or. There are only two possibilities in an Aristotelian contradictory—possibility A or possibility not-A. These possibilities cohere to the two culture system extant in education in the sciences and education in the humanities. Such systems exclude all subtleties and insure that variety and reciprocity have no epistemic authority. This formal logic does have value in knowledge construction; however, it remains firmly grounded in intellectual isolationism and does not express the reality of lived experience. In the majority of relations that we have with the existential world there are subtleties of understanding, of

judgment, and of knowledge that are predicated on the varieties of experiences, experiencers, and things experienced. In practical usage, contradictories “become instruments of oppression and social control” (Code 1991, 29).

### 4.3 Individual epistemic authority

Like Korsmeyer, Code is unwilling to accept a polarized subjectivism/objectivism and; therefore, advocates a form of relativism to justify the epistemic authority of the individual knower; a form of relativism that interrogates the masculine dominant and its claim of objectivity. Similarly, she must dismantle a polarized relativism if knowledge is to have any practical value. Relativism is one half of the binary pair that includes universalism. In exploring the universalism/relativism binary, Code again finds a middle ground by advocating a tempered moral relativism based upon specific and particular relationships tempered by critical evaluation. She holds that any “values and regulative principles invoked are appropriately responsive to the context” (Code 1991, 108). Restated, any universal moral principle must be tempered by evaluation of the reality of the people, events, and circumstances being held in judgment. In this way, knowledge claims find space within the subtleties of experienced life—they are not relegated to the exclusion required of an oppressive binary system. In making these moves that exist between polarizing binaries, Code avoids claims of dehumanizing objectivism, disabling subjectivism and a slippage into unmitigated relativism.

Code’s proposal to resituate epistemological inquiry by recognizing the value of context in knowing provides a possible means to overcome the polarized binaries and the positivist biases of mainstream epistemology. Mainstream positivism is best characterized as an inquiry dependent on the rationalization, simplification, categorization, and the necessity of universalizing all knowledge claims. It is the basis of western conceptions of natural science and, for the most part, constitutes the contemporary western worldview. This worldview presupposes a disconnect of humankind from the natural world—we are observers, manipulators, controllers of a system that we can only understand in categorical simples and non-complex relations. This viewpoint allows no tangible relation to the natural world; we have no tangible expression of being in the world.

A Heideggerian approach to epistemic knowledge of the world may be one possible means of overturning the hegemony of reason for more sustainable relations with others, with nature, and with a future free of self-imposed disaster. Code notes that a feminist convergence with phenomenological thought might “offer an account of being in the world which resonates with the activities of moral and epistemic subjects who know and understand by positioning and repositioning themselves within a situation in order to understand its implications and see in those implications contextualized, situated reasons for action” (Code 1991, 148). This move from the purity and universality of rationalism to a contextualized reasonableness allows for us to know in specific and particular ways, to make informed decisions based on our knowing, and to take practical actions to insure the furtherance of our being in the world.

### 4.4 Epistemology of experience

Code suggests that institutionalized, ‘public’ knowledge is a product of the positivist unity-of-science project and that this knowledge legitimates “the networks of authority and expertise that sustain asymmetrical, oppressive social and institutional power structures” (Code 1991, 175). Postmodernist/post-structuralist/feminist thought has sought to combat the structures of ‘public’ knowledge by providing space for alternative authorities, alternative expertise. Seemingly, feminist thought has moved beyond awareness of the knowledge/power matrix of domination and toward dialogical systems that can allow for such alternatives. By employing Wittgenstein’s knowledge/acknowledge observation, Code hopes to create space where women can acknowledge their own expertise and, as such, alleviate dependence on experts who currently support the oppressive systems that leave women with no space of their own. This same methodology might empower an epistemology of design; dialogical systems that allow for alternative views, alternative solutions, and alternative ways of knowing. This epistemic system gains its authority from a practicality and groundedness in the messy complexity of lived experience. In this way, the knowledge/experience binary—a deeply gendered and oppressive/exclusionary construct—can be dismantled or, at least, re-boundaried in order to make room for a more flexible form of knowing; for a mitigated relativism that allows additional ways of knowing.

Code’s call for a mitigated relativism seems appropriate to rescue the epistemic authority of women, designers, and other groups marginalized by mainstream epistemic practices that favor rationality and ideal objectivism. With a commitment to realism represented by an engagement with the material, particular, spatial, and temporal qualities of lived experience, coupled with a practicality grounded in personal responsibility and accountability, these groups can re-value knowledge through practice and place it in a preferential position in regard to all epistemic claims. This positionality in the real, in the appropriate, and in

the material acts to refute the authority and credibility of universalism, of oppositional binary systems, of ideal objectivity, and of subject-neutrality.

Mainstream epistemological theory, with its universalizing character, must be re-conceptualized to a model that recognizes the necessity of addressing the knowledge claims of the practical, the particular, and the material as issues that make up our experiential lives. In opposition to the mainstream and a possible replacement feminist philosophy, Code advocates a middle ground that challenges any unified theory by being located within “experiences, histories, social structures, material circumstances” (Code 1991, 322). It is this locatedness that expresses the potential for re-conceptualization. In being located, in having positionality as a defining characteristic, this middle ground requires both mitigated relativism and accountability. Mitigated relativism allows a re-conceptualized epistemology to avoid the problems of a unified theory that precludes difference; accountability insures that the included difference of “Other-ness” becomes central to methodological control.

Code’s middle ground allows for a pluralist epistemology. She notes that the “diversity of situations and circumstances in which people need to be in a position to know makes it difficult to see how a theory of knowledge, *an* epistemology, could respond to their questions” (Code 1991, 315). In allowing a middle ground—a pluralism—to general knowledge construction, specialized epistemologies can likewise be understood through a pluralist theory. Particularly, design knowing benefits from an awareness that unified theories of knowing are absolutist, authoritarian, and do not account for difference—ambiguities that are personal, spatial, material, and environmental. Stenstad’s anarchy celebrates the power of pluralist methodologies in noting that such methods insist upon “questioning, working and playing with ambiguities, being alert for the presence of the strange within the familiar, and allowing for concealment or unclarity in the midst of disclosure” (Code 1991, 319).

## CONCLUSION

A mitigated relativism that seeks the middle ground of pluralism, allows for knowledge questions that are grounded in particularity, that take “place from *somewhere*” and are “committed to finding answers that make action possible” (Code 1991, 319) is analogous to a pragmatist philosophy, one where things that “work”—that have particular grounding—are true. This mitigated relativism/pragmatism—readily associated with the Vitruvian virtues of durability, utility, and beauty—appears to be a necessary condition for any design epistemology. It allows for a multiplicity of solutions to ‘softly’ defined problems; it does not require universal stances or responses, but rather, for critical, particular, and evolving responses to continually changing needs and circumstances.

Code’s mitigated relativism coupled with the Vitruvian virtues appear to be necessary conditions for design epistemology—a knowing that is informed by “experiences, histories, social structures, material circumstances” (Code 1991, 322). This re-visioned design epistemology mediates a positionality between lived experience and propositional knowledge. This positionality allows for design solutions that are particularly located—particular to clients, to site conditions, to economic constraints, and to material circumstances. It is this locatedness that limits universal theories and produces design solutions that respond to particular needs, places, and understandings. It, perhaps, allows for the idiosyncrasies of designers, of clients, and of circumstances. Additionally, the pluralism implied in questioning “a theory of knowledge, *an* epistemology” (Code 1991, 315) structures well within a framework of design knowing. Design processes cannot be defined by singular methodologies, by singular ways of knowing. A re-visioned middle ground may indeed provide a framework for articulating design knowing that avoids general evasiveness but still allows for an ambiguity necessary for approaching solution-based problems. Perhaps this middle ground thinking will, additionally, allow for the formation of a pedagogical model that celebrates the pragmatic, the subversive, the idiosyncratic, and the ambiguous without losing its way and slipping toward the extremes of either a dehumanizing scientific rationalism or what might be termed the pure relativism of form-making.

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