of, a significant intellectual point of view, issue, or directive. In some countries, like Italy, the “Thesis” is indeed a written document, but it does not involve a design-project, which is done separately. Hence, the problems we are concerned with here don’t even surface. In isolated cases in the US, the thesis was only a research project, but that sort of thesis does not concern us here, either.

In the present intellectual climate it is prudent to ask ourselves some simple questions concerning thesis: what constitutes legitimate intellectual content for an architectural thesis project? And conversely, what constitutes a legitimate architectural project for a thesis investigation? If we consider the opinion, “This project has no thesis; it should not pass,” we find ourselves in a quandary concerning both the nature of architectural thought and the professional competency requirements of an architectural curriculum (either BArch or MArch). As far as professionalism goes, and the institutions that judge it (NAAB, RIBA, Ordine degli Architetti, etc), the word “thesis” is moot. It doesn’t matter if a project “has a thesis” in order to pass as a proof of design competency. Moreover, it would be a questionable act bordering on abuse of faculty power for a student to fail and not get a professional degree because a professor thinks there is no “thesis” in the thesis, when many schools, along with the NAAB itself, don’t require a thesis at all.

Indeed, if an accredited program can eschew the thesis requirement altogether, or call a student’s last project a “Final Project,” “Terminal Project,” or “Directed Study,” or even give a final studio in place of a design thesis, then we have two alternatives: either the term “thesis” ought to be eliminated if the acceptable projects are not “sustained” by a verbal thesis statement and argument; or, we must allow that the term “thesis” suggests that the process of design itself is an intellectual activity worthy of the term.

But this issue is also outside the domain of this discussion and it can be solved by either not requiring so-called verbal/intellectual content for the design project, or by changing the name of the course. Such a move is bureaucratic. Our interest here is about intellectual substance and the nature of “design” vs. “content” for a thesis project.

This is no trivial matter; it penetrates to the core of academic traditions and assumptions. Architecture was not always a subject considered intellectual enough to be taught at a University. Universities existed in Europe and America for centuries before the first architecture programs were established. The Ecole des Beaux Arts in Paris is a separate school, unattached to the University
of Paris or the Sorbonne. The University of Cambridge delayed the founding its architecture school until just before WWII because so many of the university's members considered architecture a mere craft, and not worthy of serious cogitation. As recently as the past decade, a governor of the state of California suggested to the University System that the Architecture Schools be confined to the Polytechnic Universities, and be removed from the first-tier colleges like Berkeley and UCLA.

When I began teaching in the 1970s I had a running argument with one of my colleagues about the nature of the MArch I Thesis. He argued that any thesis should possess an identifiable, i.e., a written, component, a proposition to be proved, disproved, or at least investigated. Anything less, he said, could result in a thoughtful professional project, but should not be called a Thesis. I argued that if architecture's intellectual content required support through words, the design of buildings as an intellectual activity was degraded. Indeed, architecture's fundamental material is palpable form, while academia's material is words. A "supporting thesis" didn't necessarily result in a better building.

The word "thesis" has its origin in the Greek word to "lay down." Webster calls it is something that the author advances and maintains through argument. It would initially appear from this definition that professors like my former colleague are correct in arguing that some projects lack "thesis." Are they? There is nothing in the definition that requires a verbal origin for a thesis. Can a visual, constructive, or tectonic argument be a thesis? Is a formal dialectic insufficient to maintain a thesis? While we must discuss all this using words, the production of the thesis itself may not require words. Clearly, an architectural project is possible to craft without supporting words, but not possible only with words, despite living "proof" to the contrary in the form of numerous non-architectural thesis projects that pass muster at some universities. A thesis in mathematics can be expressed in equations. A thesis in Dance may be a performance. A thesis in art may be an installation, or even a painting [sic].

When I look back to the theses I saw in the 1970s, I remember projects that were more or less complete buildings, more like the almost wholly architectural theses at some schools today rather than the half-architectural theses at some other schools, or the non-architectural theses at a few schools. Back then students produced "whole" building projects, i.e., they accounted for all the programmatic functions, explained their structure, and presented drawings and models to establish this (although sometimes they lacked the de rigueur wall-sections of some thesis projects required at the more professionally oriented schools). James Stirling's thesis at the University of Liverpool in the 1940s was "just" a building. Charles Moore's thesis at Princeton in the 1950s was about "Water in Architecture," and it was also a building. What is interesting about Moore's thesis is that "water" is something that may be integral to architecture and building (we normally have to get rid of it, not contain it, but that's a minor detail), not some theme that derives from another source like literature, social criticism, or cinema (pun intended).

"Text-dependent buildings," (a term I attribute to Professor Judith Wolin) have been few and far-between in the history of architecture. Many aren't buildings at all, but gardens, like the Villa d'Este at Tivoli, or the one built for Wilhelmine of Bayreuth (19th century). Thematic content in landscape may be capable of controlling form and function with greater ease than it is with building, although I suspect many Landscape Architects might take issue with that. We are usually taught about the meaning and symbolism of gardens by historians, after all, not by landscape architects. Likewise, we are often taught about the meaning and symbolism of buildings by historians, not architects. Being both an architect and a historian, I often find myself in a schizophrenic condition. "Content" versus "Form" periodically haunts me.

Perhaps thematic content can more easily govern garden design because gardens have less complex pragmatic requirements than do buildings. Architecture has traditionally derived much of its primary meaning from the quality of its very construction. That's not to say that a good landscape gardener need not match the plants to the climate and soils context as well as the thematic content.

"Text-derived building" might be an extension of "Text-dependent building," where the thematic content appears to actually generate the form of the work. But like functional relationships, "content" cannot actually generate architectural form; it can only "test" its validity and rationality, if that. I should add here that most (if not all) the thesis projects I have seen recently that were supposed to be...
buildings, looked like buildings, in whatever degree of completion or incompletion their authors had presented them.

This said, we can proceed to an examination of content itself, and evaluate the intentions as well as the putative success of thesis projects. Invited to judge judge these at another university, I recently saw a number of thesis projects, most of which were reasonable, architectural exercises. One of these projects, however, explained flawlessly the problems we are facing. A student had designed renovations and additions to Mies’s Seagram Building in New York, converting the building into a “Center for Recent Immigrants to the US.” He redesigned the interiors of the tower so that our new arrivals could be observed at all times. He also proposed that various parts of the facade be fitted with clear glass, replacing the bronze glass of Mies, to show where temporary housing for these immigrants would be located. The project, in fact, was presented in a rather complete manner: plans and sections seemed to correspond, and the computer-generated drawings were finished enough so that there was very little ambiguity in interpretation of what was intended.

The student argued most emphatically that his thematic intent was a good one, primarily based on the idea of the word “transparency.” To him transparency in our society was something new immigrants lack. So, he was going to give them “profile” by making their partitions transparent. I suggested to the student that he go rent Jacques Tati’s film, “Mon Oncle” and see just what results from this kind of transparency. Not surprisingly, he had never heard of Jacques Tati. But, when I then suggested that his project reminded me of Jeremy Bentham’s Panopticon, he begged ignorance of that, too. This was, in my view, a project that reproduced the least attractive of the instrumentalist/positivist attitudes of the late 18c and early 19c (Ledoux, Bentham, Fourier, etc.) in a manner that reduced architecture to a singular and simplistic determinant. I suggested to the student that the metaphor of “being in a gold-fish bowl” was not a positive one, and that at the University of Maryland we teach such ideas at all levels of design. Same reaction.

Here was the very opposite of “raising the intellectual bar” that most faculties support. I thought the project was sophomoric, not sophisticated. Significant buildings, i.e., those that have ‘meaning’, are replete with many determinants and levels of readings. In my view the student was wrong to assume that his design might in any way lead to his desired outcome; he was narcissistic, and he was ignorant of the culture and history of architecture over the last two centuries.

In addition to the criticisms above, the project suffered from a malaise that is the opposite of the avowed intention of the author. His building possessed a thematic content that was trivial and simplistic. He was writing the equivalent of a commercial jingle when he could have been orchestrating a string quartet, at the very least. When such singular and extreme readings are so dominant, the result is a loss of richness. If all the symbolic content that scholars have gleaned from the works of Borromini, Wright, Corbu, and Kahn and others can co-exist in buildings with so many other readings and meanings, then thesis projects like this one seem incredibly banal.

The fact that this thesis won a prize is interesting. The project engendered much debate. The jury discussed it a great length, and while the comments were generally negative concerning the author’s thematic intentions (we never really discussed the building from any other point of view), the project’s premiation indicates that the faculty who voted for it clearly thought that the discussion a thesis stimulates is a major criterion of its quality. Such an attitude is not only rather selfish on the part of the faculty, but it legislates against any form of rational (let alone any

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objective) values of quality. While the prizes should not necessarily go to the buildings that are the most buildable and functioned the best, the very idea that promoting good conversation is a motivation for design/intellectual activity is somewhat troubling.

Likewise, if “meaning” does indeed get in the way of “function” no amount of rationalization will help. Conceptual “seams” are not a legitimate substitute for privacy, for example. As Le Corbusier said, “Starting from conditions more or less utilitarian ... suddenly walls rise up toward heaven in such a way that I perceive your intentions ... art enters in.”

If we examine other projects that are “text dependent” we may see the problem in a wider context. In 1938 Giuseppe Terragni designed (but never realized) a Library and Temple to Dante, which was to rise in Rome near
the Forum. The project was designed as the compositional and symbolic embodiment of Dante's Divine Comedy to be realized in stone. But Terragni could no more coax his Danteum project out of Dante's poem than can Joe or Jane Schmo educe an elementary school out of the program-brief, or a student design a thesis solely out of the theme of “transparency.”

‘Meaning’ or ‘content,’ for the present generation of architecture students – like ‘function’ for the generation of the ’50s and ’60s, or like “user needs” for the generation of the early ’70s – is not a generative action. Form may follow function chronologically (if indeed it does), but it cannot be derived from function alone. In the late 1960s, Alan Colquhoun argued conclusively in “Typology and the Design Method,” that functionalist design method was a myth (or so I’ve believed his arguments to be conclusive all these years). In fact, functionalism is an aesthetic doctrine, not a methodological one, Colquhoun concluded. While “handsome is as handsome does” may be a valid (albeit rather dry) means of evaluating form, it is unrelated to form’s generation.

So it is the same with “meaning,” “thematic content,” or any meta-architectural or associative intention. These ideas cannot generate a building, but only be part of the building’s generation, and a rather small part as well. This is not to say that the relationship of Terragni’s Danteum to Dante’s Divine Comedy is arbitrary. Not in the least. It is to confirm, however, Terragni’s own statement that Building and Poem must each possess its own essence, along with their points of contact. While the Medieval Church was a “substitute” for the text of the Bible in a society that was largely illiterate, it was not merely the Bible rendered in stone, with its formal determinants derived from the syntax of language and analogic thought. Tradutore=Traditore. (The translator is a traitor).

Many recent architectural theses suffer from other problems as well. For example, the putative intellectual content is often interchangeable and vacuous. Their interchangeability makes them vacuous. Themes like “transparency,” “seams,” “the relation of man and landscape,” “the magnification of the private act in the public realm,” are all too generic to be applied to any given project as its own thematic content.

So much of the intellectual pretension of thesis projects is already right there in most, if not all, buildings. After numerous Princeton theses in the late ’70s had relied heavily on Gaston Bachelard’s ideas of domesticity from The Poetics of Space, Alan Colquhoun remarked, “You can’t make a “Bachelard” building. All building’s contain Bachelard’s principles, that’s why and how he could enumerate them.” (He then added, parenthetically, that perhaps Le Corbusier’s Maison Dom-ino lacked “Bachelard” readings.) If I am correct in this, then thesis students need not even choose their “topic” or “content” before they complete their project. On the contrary, maybe it would be a good idea if the “thesis” emerged out of the design process itself, which is of course what happens in the design of [good] buildings for which no “thesis” is initially intended. (See the list of “interchangeable thesis topics” that I have appended to the end of this paper).

Likewise, the subtle emphasis on certain characteristics of architectural theory may make one thesis differ from another, but when those characteristics “take over,” the thesis goes beyond caricature to cartoon. But creating a caricature might indeed be a reasonable idea for a thesis, since the origins of the word (from the Italian “caricatura,” to put a weight on something) means to emphasize certain features in what would otherwise be a dispassionate portrait. Because so many theses today reach beyond caricature to cartoon they fail in attaining a worthy intellectual content, and what could be more inimical to the intention of such an investigation than that?

Thesis content selections:
Late Choices for Supercharging the intellectual content of your thesis

- How technology affects the perception of space in 21st century architecture, as it redefines wall, floor, and skylight/door knob.
- The design as initially conceived is destined to be transformed during the course of its execution. As with Wittgenstein, it is similar to a game where we play and make up the rules as we go along.
- The Frequency Modulations and the Angular Modifications employable by man (woman) may be applied by her/him to local sub-system interaction of energetic universe. The local transformations thus integrated ever reactively (indirectly-inadvertently) accelerate total transformation of universe.

5 Some of the below are adapted from the 1997 University of Pennsylvania MArch Thesis book.