Lessons From Bapu Kuti

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We had just spent the previous day at the Ellora cave temples. Our share-taxi (really a landcruiser-sized jeep) back from Aurangabad cost fifteen rupees, about thirty cents each. What a deal we thought, until, one by one, the shared seating was filled to the overflowing occupancy of twenty-four persons, with an average of nineteen for the thirty kilometer trip. Blaring Hindi music, and no modesty remaining. We bought tickets for the 6:00 a.m. luxury bus to Jalgaon, complete with free Hindi movie and one person per cushioned seat. In the evening we stayed at a clean hotel with white-tiled bath and hot water that arrived in buckets.

5:00 A.M.

We awoke for the 6:00 a.m. train to Wardha, arriving by 11:00 and catching an auto-rickshaw to Sevagram, Gandhi’s last ashram. Twelve to fifteen permanent residents still live there, with numerous visitors, long and short term. They practice a simple agricultural life and ascetic principles.

2:00 P.M.

The community spins-on tiny portable spinning wheels-thread from cotton they grow, at

(continued on page 2)
least twenty minutes per person, the time required to spin all of the thread needed for one person's cloth for one year.

5:00 P.M.
We were served a simple but delicious vegetarian (simply “veg” locally) meal. Sitting on the floor, mostly in silence. Fresh warm milk with jaggery, made from evaporated cane juice. Yellow rice, mild dal (lentil stew), all the chapatis you can eat—fifteen rupees.

6:00 P.M.
Prayer. Men and women are separated, as at dinner, seated on the gravel courtyard, chanting accompanied by a single one-string instrument.

The peace and simplicity of the place was profound. The fact that this grounded spirituality is chosen, not required or born into makes it even more powerful. Their work—digging in the fields, spinning, cooking dinner is their meditation. Kindness, truthfulness are their values. The buildings are simple mud huts with mud and dung or stone floors and handmade clay tiled roofs, all made with local materials by local village craftspeople. Made of wood and mud, by hands of humans, not the shaping of machines. I wondered about how such a simple hut and this way of building became an statement of non-violence. At its base it is a kind of radical democracy, where one's needs do not expand with one's means, where what is taken from the earth is close to what one truly needs, and where the fulfillment of one's needs do not consume the resources needed by another. It is also a place of humility, a physical statement of the spiritual equanimity between persons, non-hierarchical relationships in a culture of caste, class, and bureaucracy.

Gandhi’s house, Bapu Kuti as the residents call it, is a small house, with a small entry porch, a sitting room for a few people, with woven floor mats, a small work space for Gandhi, a guest room, and a place for the sick to be cared for, an open verandah, and a not-so-Indian-style bathroom (complete with custom-built sit-down toilet)—altogether, perhaps 450 square feet. Such a small place with such large lessons, even for me today. I left practice because I was weary of working on houses that I nor anyone in my family could ever afford to live in. I took up
research and teaching to influence more people and more buildings to evolve toward ecological integrity. This small home, the joy of these people, and the millions I have seen on the journey here—all ask me what I am doing, and if I have the questions even close to right.

It makes one keenly aware of how little one actually needs to live a dignified life. This in turn leads to another, more powerful question. Is it not perverse to see industrialized technology as progressive development of human habitat? Or any kind of human development? Is my soft path version of it much better? I suspect that I and the rest of the industrialized green movement are off by several orders of magnitude. Certainly mere resource efficiency and human comfort are not measures worthy of constructing a new model of building. In the spareness of this place is the emphasis of simple ritual, the circular events of community and companionship. These people live well. They have friends, books, an intellectual life, enough to eat, and the kind of human connections and care rarely seen. But no real wealth, certainly few material things.

The lesson of Gandhi’s house is also about the nonessentialness of convenience, about the nonseparateness of living and working, and ultimately of self and other. Despite my modernist upbringing in design school, I still imbied the axiom that quality in buildings was evidenced by embellishment. I still carry the embedded cultural stories that comfort equals luxury and that quality of life improves with the size of one’s house. Yet, here I see virtue and beauty in a humane minimalism, the kind of inconvenience that filters out the irrelevant and allows the perennial qualities in us to surface. It is evident here that there is a different time, though there are clocks and watches, there are also bells and chimes, sunrise to sunset, season to season, festival to festival, field work and returning from the field, cooking and being cooked for, caring and being cared for, exposure to the elements and protection from them.

The contrast of my home and work, with its isolation from the rhythms of place, as compared to the pervasive connections to sky, sun, shade, and breeze found here is immense. Here the machine does not conquer the midday heat, so there is rest and time for reflection, for quiet. Here there is not the uniform space of home where every square foot of every room has light, heat and cooling whenever we call on it. Instead of single uses in single places, our concrete placement in the rational matrix, there is a loose fit of occupancy and place. Though there is electricity, it does not make bright the night. In the darkness there is time for talking with other souls and for mysteries of deep skies. There is time for rest. Fine work moves toward light and most spaces can shift from sleep to work to social activity, while the activities themselves move to follow shade or breeze, from deep retreats to perimeter exposure and back.

And ultimately all this weaves together in an indescribable simple yet complex, organic, living network of person-community-place. When was the last time I heard spoken in my civilized progressive design school the words beauty, truth, joy, freedom, love, nonviolence, or social service? When have I ever heard students called to virtue without apology? When has simplicity and lessness been valued over complicatedness and expressionism? When have I asked of my students to create places as rich crucibles for human development?

Mark DeKay spent August to December, 2000 in India on a Fulbright Fellowship.

Editor’s Note

Thank you to all of the contributors who helped to make the ninth volume of Connector a success. We are delighted at the number of subscription requests we have received and ask our readers to pass this issue on to new faculty members and graduate students who teach technology. Please let them know that subscriptions are free.
Most architecture teachers, especially those who teach construction courses, know how difficult it is to integrate technological considerations with the design process. Students have to cope with more issues than they can actually handle in design studios, usually pushing aside materiality and technology in their design process. Moreover, they don’t easily figure out the design potential of building technology in construction courses. The traditional separation between design and construction, still often seen as “antagonists,” and the purpose of actually reconciling them together within the curriculum have been widely discussed in numerous conferences and publications. Although several innovative pedagogical efforts have been successfully carried out, they tend to be exceptions to the norm and involve only a small percentage of a school’s student body. It is still difficult to create recurrent learning opportunities that allow all students to achieve a real integration of design and technology.

At Laval University, all courses pertaining to construction and building materials have been recently reviewed in order to address this situation. As a result, a brand new course has been developed. Its main goal is to link design ideas to construction and materiality in architecture. At first, as some other schools of architecture already do, we planned a course that would introduce first-year students to an overview of significant projects and landmarks. Our aim was to illustrate how architects have persistently integrated construction concerns in the design of buildings. However, we realized that studying some architects’ views on construction would be more useful to students if they fully understood the actual technical implications of an architect’s ideas, and the role of technical concerns in inspiring new design ideas. Consequently, this new course, entitled *La Pensee Constructive en Architecture* (Constructive Thought in Architecture), is the last in a series of seven compulsory courses devoted to building materials, construction and technology in architecture which are all presented from an architect’s point of view. What distinguishes this new course from the other ones is the way it addresses and integrates all the material and technological aspects of design instead of focusing on single issues. Prior to taking this course, students develop a firm understanding of principles taught in the six previous courses, and acquire substantial design experience.

The title of the course, *La Pensee Constructive en Architecture* (Constructive Thought in Architecture), refers to Jean Prouvé’s “l’idée constructive.” Prouvé, who founded the *Union des Artistes Modernes* (UAM) with Mallet-Stevens in 1929, always tried to make the best use of the technology of his time. He believed that technology could generate its own esthetic, without referring to any style. Naturally, this viewpoint is not the only one taught in the course, but it represents our approach. Topics center mainly upon architects of all eras and from diverse cultural backgrounds and their different viewpoints on construction. Discussions highlight the perennial duality between convention and innovation. Different learning vehicles are involved:

1. Lectures on selected topics that address the attitudes of architects toward construction, tectonics, hapticity and abstraction of the architectural experience, detailing, etc. Each is followed by a discussion seminar.
2. A comprehensive summary of two seminal texts.
3. Students’ in-class presentations of a case...
study on a project designed by a well-known architect.

4. A revaluation of the "pensée constructive" from a project designed by the students in a previous design studio, integrating architectural, structural, mechanical, and envelope concepts.

5. The design and fabrication of a chair using a building material selected by the teacher.

The photographs show examples from the last assignment. Its most appealing aspect probably lies in its pedagogical efficiency: it involved a large number of students and very limited resources.

Through a learning-by-doing approach, the exercise aims at stimulating the students' "material imagination" in design instead of having them resort to a more easily accessible "formal imagination." (The terms are from Gaston Bachelard, in Water and Dream: an Essay on the Imagination of Matter, 1942.) Another objective was to challenge students to create an object, the design qualities and technical performance of which could be objectively assessed. Normally, this kind of exercise would involve significant financial and sophisticated organizational means, which our school, like most architectural schools, does not have. This assignment's only requirements were the purchase of a bunch of hardwood sticks (sold as firewood at the corner store for $2.99 a bag) and small workshop equipment. No supervision was required, nor did it incur responsibilities for the school. The success of the operation depended primarily on the imagination of students, not on exterior factors such as the management of human, material and financial resources.

Students were asked to base their chair design on the potential offered by ordinary materials rather than on seductive forms, as they usually tend to do. In order to address one of the main requirements—that the chair should support the weight of its user-students had to pay particular attention to structure. The limited length of wood sticks (11 inches, more or less) meant that particular care must be taken in the way elements were assembled. Moreover, a great deal of thought had to be given to the manner in which pieces were joined together. Optimizing the chair's structure while experimenting with the hapticity of the architectural experience actually helped formulate interesting "pensées constructives."

Structure, assemblage, and joints had to be expressed by the object itself and perceived by its users. In most of the twenty-five prototypes, results were astonishing: students could demonstrate a solid design background as well as a good understanding of technical issues. Certainly the most rewarding part of this experiment remains the public showing of the chairs. The photographs illustrate how a mere bunch of wood sticks can be transformed into attractive architectural objects, while solely requiring knowledge, talent and judgment.

Doing more with less is a timeless challenge for architects, and this may be even truer nowadays than it ever was before. We think that encouraging aspiring architects to push their imagination and their technical skills to their limits without turning to expensive building materials and complex structure is a good way to prepare them for their professional life. The abilities they acquire in school can thus be cleverly applied toward the creation of true architectural works of art. The excellent reception that this experience has received from academics and professionals tends to support its relevance.
Beginning in January of this year we conducted a survey pertaining to the treatment of special structures in architectural schools. For the purposes of this survey, special structures are described as: space frame or grid, cable-and-strut (including tensegrity), air-supported or -inflated, self-erecting, cable net, tensioned membrane, lightweight dome (including geodesic), folded plate, and thin shell. The purpose of the survey was to determine what was being taught, at what level, and to what degree.

The survey was sent by electronic mail to all faculty members teaching structures in the 114 accredited schools of architecture in Canada and the United States. When a faculty member could not be reached by email, an email was sent to the chair or Dean of the architectural program asking them to forward the survey to the appropriate faculty member. Follow-ups were sent by fax to the programs that did not respond to the e-mail surveys. A total of 49 schools replied for a response rate of 43 percent. These replies were received via email, fax, and through the postal system.

The responding schools were grouped into three categories: small (those that admit thirty-five or fewer students each year), medium (schools that admit between thirty-five and ninety-two students each year), and large (those that admit more than ninety-two students each year). Twenty percent of the schools were classified as small, 53 percent as medium, and 27 percent as large. About half of all the students attending the responding programs are enrolled in the schools classified as large. The smallest school responding was Andrews University in Michigan, admitting fifteen students each year, and the largest was the University of California at Berkeley with 360 students per year. Of the responding universities, 61 percent offer the B.Arch. degree, 69 percent offer the M.Arch. degree, and 37 percent offer both degrees. Thirty-nine percent offer a four-year pre-professional program. Twenty-seven percent offer a doctoral degree, each enrolling only a handful of students. The specialized MS degree is offered by 39 percent of the schools, but these programs enroll only about 5 percent of the total student population.

The survey showed that, in most of the schools, structures is taught in a separate sequence of courses. The average number of weeks devoted to structural education in a five- or six-year program is forty-six weeks; the shortest sequence is fifteen weeks and the longest, seventy-five weeks. This indicates that schools vary from only one required semester of structures up to five, with the typical program requiring two or three semesters. It was found that 65 percent of schools devote some portion of their required courses to special structures with the average being four weeks. The schools that we classified as medium were more likely to do this than the small or large schools. Of the schools that offer some special structures as part of their required sequence, Table 1 provides the percentages of those schools that teach each topic. Several schools added additional topics to the list. These topics included fiber-reinforced composites, cable-stayed, and Vierendeel frames (both two- and three-dimensional).

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<tr>
<th>TOPIC</th>
<th>PERCENTAGE</th>
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<tbody>
<tr>
<td>Space Frame Shell or Grid</td>
<td>88%</td>
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<tr>
<td>Cable-and-Strut</td>
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<tr>
<td>Folded Plate</td>
<td>59%</td>
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<tr>
<td>Lightweight Dome</td>
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<td>Tensioned Membrane</td>
<td>50%</td>
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<tr>
<td>Cable Net</td>
<td>47%</td>
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<tr>
<td>Air-Supported or Inflated</td>
<td>44%</td>
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<td>Self-Erecting</td>
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Table 1. Frequency of topics taught in required sequences

Sixty-eight percent of those responding offer elective courses devoted wholly or partially to structures and 63 percent of those courses involve some special structures. The titles of these included Long-Span Structures, Structural Design Theory, Advanced Structures, Theory and Design of Tall Buildings, Structural Creativity, Qualitative and Experimental Structures, Structure and Form, Structural Analysis, Fabric Structures, Historic Structural Systems, Structural Systems, Structural Design Studio, Assembly and Collage, and Innovations in Building Technology. These courses devoted an average of eight weeks to special structures topics. The enrollment in these courses varied from eight to fifty-two with an average of twenty-five (fifteen undergraduates and ten graduate students). These figures were relatively independent of the size of the school and the degree program. Table 2 shows the percentages for each topic treated. The lower numbers in Table 2 in comparison to Table 1 suggests that many of these elective courses probably treat other topics in addition to those of special structures.

The responders were asked to characterize the treatment of special structures pedagogically in their curricula. Sixty-nine percent characterized their schools treatment as “acquaintanceship and nomenclature,” 47 percent as “behavioral understanding,” 18 percent as “qualitative and moderately quantitative,” and eight percent as “thorough qualitative.” The data appeared to be unrelated to the size of the school and the particular degree program. It was asked why special structures did not receive more emphasis at the respective schools. Predictably, 66 percent reported that “crowded curriculum” was the main reason. Surprisingly, 32 percent listed “lack of qualified and/or interested faculty mem-
Table 2. Frequency of topics taught in elective courses

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<td>Self-Erecting</td>
<td>6</td>
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</table>

Table 2. Frequency of topics taught in elective courses

bers” as a major or secondary reason. For the large schools this figure rose to 45 percent. Fully 20 percent listed “not important to the overall mission of their school” as a major or secondary reason. For the small schools this figure rose to 43 percent.

Finally, it was asked what resources would be of help in teaching special structures. The overwhelming majority wanted slides of projects, both completed and under construction. They also indicated that a CD Rom could meet this need. About half of the small and large programs indicated a “book for the teacher” would be helpful, while less than a quarter of the medium sized schools wanted this. Approximately one-third suggested a “textbook for the students” would be desirable.

We conducted this survey as a part of the Education Committee on Special Structures of the American Society of Civil Engineering (ASCE). The impetus of this survey was endless discussions on what was being addressed in both architectural and engineering curricula and what a group could do to increase the knowledge of special structures by students. The authors have plans to survey schools of engineering beginning in November, 2001. The results should yield some interesting comparisons. Any persons interested in becoming a part of the committee or in using the survey data should contact Ronald Shaeffer or Patrick Tripeny.
Writing Studio Programs That Work

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A design studio that’s under your control is the best place to teach the design of the technical systems of buildings—structure, enclosure, acoustics, HVAC, solar design, passive cooling, detailing. A key to getting the most mileage out of such a studio is the formulation of just the right program for the project. Following are a few suggestions that I’ve distilled from my own successes and failures. They work well also for design projects that you assign as homework in a classroom course.

Focus the Problem

Decide what skills and perceptions you want to teach. Write a program that focuses attention on these skills. This is so obvious as to appear stupid, but it’s surprisingly easy to veer away from this focus while constructing the program.

Eliminate Distractions

Cut out those aspects of a problem that tend to absorb lots of students’ time and energy without contributing to the focus of your studio. For example, if you want to concentrate on the design of room acoustics, give a problem for a relatively simple concert hall or theater, but leave out the design of the backstage areas, lobby, corridors, egress, and other areas of the building. If you leave these areas in the program, many students will struggle endlessly with them and not get to the acoustical problem. It’s also a good idea to use an anonymous, neutral site. Bad examples for teaching room acoustics: A community multiservice center with theater; a high school with auditorium; a theater on a really tough site.

Make Sure the Project is Feasible

Before issuing a program to the students, sketch a couple of solutions to it yourself to be sure that it can be done and that it will develop the skills you desire to teach. (Funny thing—with all my knowledge and experience, I’ve never sketched a solution anywhere near as good as the best solutions from the students. Does that show that I’m a poor designer, or that I’m a genius at writing programs that bring out the best in my students?)

Excite Student Interest:

A motivational gimmick has worked many times with my students and has never failed. Instead of handing out the usual problem statement, send each student a letter from a fictitious client, on the client’s letterhead, addressed specifically to the student and acting as if he or she is the designer just hired for the project. Have the “client” spell out the requirements. The “client” can even specify a series of dates for the student designer to meet...
the “client’s” board of directors to present various stages of work on the design. This is your chance to demonstrate your ability to write believable fiction. One of my best and most effective uses of this ruse was an assignment in a classroom course to design a coffee table using aluminum extrusions: Each student received a letter from a fictitious furniture manufacturer in Milan, specifying dimensions in millimeters and complete with a pardonable number of typical foreigner’s errors in English usage.

Consider a Warmup Problem

If you’re introducing a particular design technique in the studio, it’s often a good idea to give a short problem first that requires the students to learn and utilize the technique right away. If the technique is sexy, this can be highly motivational as well as instructive. In a longspan structures studio, I introduced graphic statics with a one-week project to design a bridge. The students designed some truly terrific bridges. In addition to making them comfortable with graphical techniques for structural design, the early victory that this gave to each of them built their confidence and really fired their interest in the main project.

The Escape Hatch

A significant number of students get bogged down on a long project and can’t get unstuck. About halfway through the term, I like to give a short problem that is the same as or similar to the main problem, but with a different twist. This allows the bogged-down student to see the problem in a new light. In my longspan studio, the one-week problem at midterm was to design a solution for the same building that they had been working on, using trusses, whereas they had all been working with arches and/or cables to that point. After completing this short project, fully half the class, including many who had been stuck, elected to do the main project with trusses, whereas they had all been working with arches and/or cables to that point. After completing this short project, fully half the class, including many who had been stuck, elected to do the main project with trusses, thus taking advantage of the “escape hatch” that I had offered. For maximum effectiveness, schedule this little project impromptu at a time when many students are struggling rather than predetermining the date at the start of the term. I’ve found that it also helps to announce when making the assignment that if a student does a poor solution to this small project, it will count little or nothing in the final grade, but that if he or she does a good project, it will comprise a substantial portion of the grade. This relaxes students in knowing that they can’t do themselves any harm puts them in the best frame of mind to do something wonderful.
ACSA 2002 Technology Conference

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Mark your calendars. The Department of Architecture at the University of Oregon will be hosting the 2002 Association for Collegiate Schools of Architecture (ACSA) Technology Conference in Portland, Oregon, at their newly expanded Portland Center, October 10 through 13, 2002. The conference theme explores the craft and production of the house as a method of understanding the technologies that inform design, construction, and occupation. Influenced by climate, culture, and consumption a broad definition of house provides for a rich diversity of topics. Researchers, educators, and practitioners are invited to share their work on technology and housing. Ph.D. and post professional students are welcome to submit paper proposals. Product and material associations and companies who are active in the housing industries of the Pacific Northwest will offer workshops on new applications of materials and processes featuring presentations by professional design teams. There will also be tours to manufacturing plants and housing projects.

The construction of housing is a powerful force within the North American economy. In the United States, it represents approximately 4 percent of the total economic activity. It is also important as a product for export. A Canadian company that produces pre-engineered, steel-framed, panelized housing systems is working to develop markets in Poland while the Parade of Canadian Homes is occurring in Japan. The industrialization of housing is taking on new meaning. One of every six housing starts in the U.S. was a manufactured home in the year 2000. Far from the mobile homes of the past, manufactured housing was used for two-story, attached homes that were recently constructed in Seattle.

The concept, the design process, and the fabrication of the house is undergoing a paradigmatic shift through information technology and networks. The “smart house” is becoming an extension or node within fully connected networks in which living and working now coexist under the same roof. The house itself is becoming more than ever an operative infrastructure or interface for the “appliances” of everyday culture, linking our every act to the outside world. Using information technology and high end CAD-CAM software to design, prototype, and robotically fabricate the house—it is on the verge of becoming a high-quality “product” using innovation previously known only in industrial design and the automotive and aerospace industries. These trends are altering the definition of sustainable design practice and the means by which the housing industry produces resource-efficient building. Technology is changing our definition of domesticity forever.

Other research, practice, and education efforts in areas of architectural technology that may not address housing specifically but would contribute to discussions on pertinent issues are encouraged.

Discussion Topics
The following topic areas are meant to incite thought. Moderated sessions will be designed in response to the accepted papers.

Globalization of Housing: What are appropriate technologies for developing countries? What are appropriate technologies for export housing?

Manufactured, Modular, Panelized, and Precut: How is prefabrication changing housing? What potentials exist in these construction technologies?

Information Technology: What will be the next “smart house”? What role will robotics play in construction? How can “smart design for smart houses” (the integration of design and construction processes) be realized? What impact will it have on new housing?

Sustainability: What part does housing play? How does New Urbanism affect the environment? What is “green” housing?

Material Innovations and Adaptations: What are the potential impacts on housing practices?

Infrastructure: How do technologies associated with landscape architecture, planning and civil engineering affect housing development and design?

Past, Present, and Future of Housing: How does the history and theory of housing technologies inform the future of housing?

Affordability of Housing: How can technology affect the real cost when durability or the life of housing is considered?

Mobility of Housing: We are a mobile society but our manufactured housing with its permanent chassis and wheels is rarely moved. How at home are we on the highway?

Teaching: How can pedagogical perspectives address the relationship between housing and technology in architectural curricula? What lessons can be learned from educational models?

Practice: How can design methods solve housing technology problems and generate new proposals that meet housing technology needs? How does the context of the profession impact housing technology?

Case Studies: What lessons can be learned from housing projects and prototypes that examine technological propositions?

Information about paper submissions and the faculty fellowship program are available at the ACSA website, www.acsa-arch.org

The conference cochairs, Linda Brock and Christine Theodoropoulos, invite your comments and welcome your participation.
Demystifying the Publishing Process

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The following is an excerpt from a talk that was given at the 2001 Society of Building Science Educators Retreat at Redfish Lake, Idaho.

So You Want to Write a Book?

Write about something that you’re passionate about. That’s the best advice that I can give to anyone who is considering authoring a book. No matter how much work you think it’s going to take, it will probably take more. You’re going to need that passion to get you through the rough spots.

Once you’ve passed the passion test, the next step is to ask yourself some important questions: Who will buy this book? Is it “need-to-know” information or “nice-to-know” information? Could it be used as a textbook? If yes, have you discussed the idea with any of your colleagues to gauge their interest in adopting such a book? Are there other books on this subject? If yes, how will yours compare? You’ll need to elaborate on all of these questions once you hit the proposal phase. It’s best to think through these issues as early in the process as possible.

Finding the Right Publisher

Unlike many areas of publishing, the world of architecture does not generally demand that you work through an agent. Chances are good that you can connect directly with an editor.

To find the right publisher, you need to do some homework. Begin by determining which publishers produce the kind of book that you want to write. It sounds obvious, but I’m surprised by how many proposals I receive from people who clearly haven’t thought about this. The internet makes this research very easy. Some additional tips:

- Talk to other people who have published books. Find out who their editors were and what kinds of experience they had.
- Read the acknowledgments in similar books. Authors often thank their editor and, assuming that the book has been published in the recent past, you’ll have a personal contact at the publishing house.

Putting Together the Proposal

Once you’ve connected with an editor and the editor has expressed interest in your idea, the next step is to prepare a book proposal. The better prepared your proposal is, the greater the chance that you’ll get signed. A good proposal consists of the following:

Description: Simply describe your book in a concise manner. Think about the sales representative who has 30 seconds to pitch your book to a buyer. What would you like them to say?

Biographical Information: If you have a lengthy curriculum vitae, submit a brief biographical statement as well.

Market Description: This is essential. Although I’m an editor, the first question on my mind when approached with a new project is a marketing one: “who’s going to buy this book?” The more detail that you can provide here, the better.

Outline: A detailed outline is key to defining the scope of your work.

Sample Chapter: If there will be illustrations in the proposed book, include some of these with your sample chapter.

Competition: Potential authors often feel that there is no book that competes with their proposed book. This is rarely the case. With textbooks, any book that is currently used in the course you’re targeting is competition.

From Proposal to Contract

Once you’ve submitted your proposal, it undergoes different levels of review. First, the editor reviews it. If the editor is pleased with the proposal, it’s then sent out for peer reviews. Peer reviewers provide not only general comments regarding its viability, but also suggestions that can ultimately strengthen a book.

The review process can take anywhere from a few weeks to a few months. You may be asked to make some adjustments to your proposal in response. If the feedback is favorable, chances are good that the editor will decide that this is a book that he or she would like to publish. As internal champion of your project, the editor will present it to an internal editorial board that consists of editorial and marketing representatives. If the editor receives the green light in the editorial board meeting, a contract offer will be in your hands shortly thereafter.

The Real Fun Begins

The process described above is, of course, only the beginning. With a contract in hand, you’ll now be thinking about organizing your time and resources. A few things to keep in mind when you get started:

- Contractual manuscript delivery dates have a way of sneaking up on you. It’s important to establish intermediate dates for yourself.
- Collect marketing, sales, and publicity leads and turn these over to your editor with your manuscript. The most successful books are the result of a collaborative effort.
- Securing permissions for artwork and text can be a big headache. Don’t put this off to the end of the project.
- With today’s technology, guidelines for art preparation change on a regular basis. Be sure to read your author guidelines closely, discuss file formats with your editor, and submit samples early in the process.

And if you’re interested in the publishing process, but are not ready to take the big leap just yet, consider getting involved in the peer review process. This will give you some direct involvement with a publisher and will also expose you to the many shapes and sizes of book proposals.
Water Infrastructure and Urban Design

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Each year American students use Rome as an architecture and urban design laboratory but this experience is rarely used as an opportunity to investigate urban infrastructure technologies. Yet Rome, famed for her gravity flow aqueducts and fountains, provides a perfect opportunity to explore the complex relationships that exist between water technology and urban development. Last summer landscape architecture students from Iowa State University took part in a new seminar that used Rome's water infrastructure system as the basis for interpreting urban development and design.

Gravity flow systems operate within specific topographic settings, which in turn influences water distribution. Roman topography determined to a large degree how much water could be delivered, who paid for the water and whom it served (e.g., church, patron, populace, industry), how it was stored and distributed (e.g., tanks, cisterns, metal or terracotta pipes), the work that it did at each stage (e.g., ritual, drinking, laundry, industrial), how it was displayed when it arrived at its destination (e.g., jets, sprays, falls), and how it left the city. Hence water infrastructure analysis provides a means to physically and intellectually weave the entire city together. Seminar goals included not only learning directly about Rome's physical history, but also enriching the student's understanding of the role that water infrastructure, topography, and technology continue to play in urban development.