

# **Small Project Forum 1997 Convention Report**

**May 14–18  
New Orleans**



**THE AMERICAN INSTITUTE  
OF ARCHITECTS**

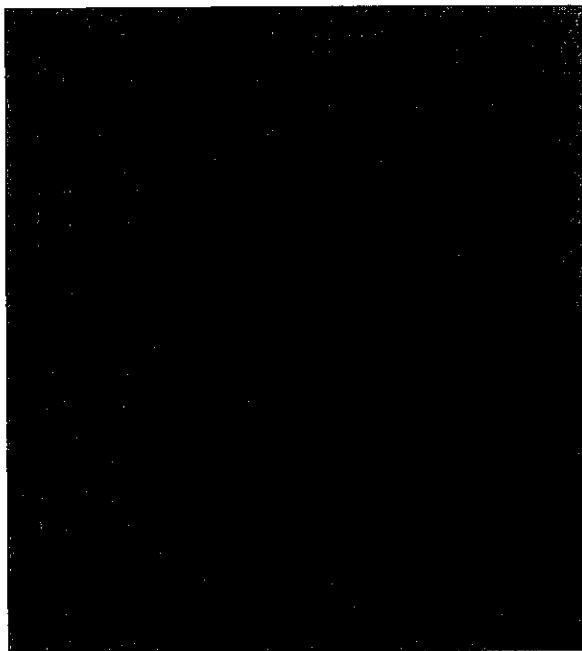


## 1997 AIA Convention at New Orleans

The AIA national convention was held May 14-18 in New Orleans. The Small Project Forum (SPF) sponsors a few small project/small firm content programs at conventions. Additionally we recognize that architects working in small firms (the vast majority of SPF members work in small firms) generally do not have the opportunity to travel to national or regional conferences. This special report is designed to convey more broadly to SPF members, the essential ideas and insights offered in a selected sample of convention seminars and workshops.

Most of these sessions were audio taped and cassettes are available for \$13. You can earn CES LUs by listening to the tapes. To order, call ACTS, 1-800-642-2287. Additionally, you can self-report CES LUs by reading this report. You can obtain information on the speakers by contacting the AIA Professional Development Department at (202) 626-7435.

*Thanks to the following Small Project Forum members for contributing to this report:*  
*Hy Applebaum, AIA Houston; Gabriel Durand-Hollis, AIA San Antonio; Charles Matta, AIA Northern Virginia; Rosemary McMonigal, AIA Minneapolis; Diana Melichar, AIA Chicago; Cynthia Pozolo, AIA Detroit; Mark Robin, AIA Middle Tennessee; and Donald Wardlaw, AIA Oakland. (See last page for more information.)*



## Well-Controlled Chaos: Time and Project Management for Small Projects and Small Firms

*James Franklin, FAIA, ASLA*

*Thomas Fowler, Associate AIA*

*Summary by Rosemary McMonigal, AIA*

When James Franklin surveyed the seminar attendees, about 90 percent billed for their time based on hours, but only about half used a time management system to track their time. Of those using a system, most are using Daytimers and similar systems, a few were using Wizard by Sharp, and one architect uses a self-designed spreadsheet computer program.

Why use a time management system?

- To maintain an ongoing record of time, schedule, and expenses.
- To improve your success rate of delivering what you say you will—on time.
- To become organized and build trust with clients, bosses, consultants, and staff.
- To create an information retrieval system where you write something once, and find it ever afterward.
- To document important events, agreements, facts, and directives for accountability.
- To have with you at all times important names, addresses, and numbers you need.
- To be a portable marketing system.
- To give you your own space to sketch, plan, and jot ideas and reminders.
- To track and celebrate all you accomplish.

Pick a time management system that works for you, then stick with it until it becomes habit. The system should be comprehensive but not a burden to you. For the system to work, you have to use it *all* the time.

Every time management system wants you to designate whether an item is important or urgent. Jim suggested coding tasks with symbols for:

- Both urgent *and* important
- Important, but not yet urgent
- Neither important nor urgent, but something to keep track of
- Urgent but not important—makes a difference, but not to me.

Time management is really information management. You may want to code the symbols above with a dot in the center, a slash, an x through it, or fill it in when different stages of completion are reached.

Many architects are using weekly to-do lists separate from their scheduling and time recording system, designating tasks and which day the task needs to be done. Coding the tasks with the symbols above allows you quickly to see what has to be done first. Doing the list on a word-processing or spreadsheet program allows you to edit the information easily from week to week. You may want separate lists for each project as well as marketing or long-term projects.

In terms of project management, the biggest problem areas for the attendees were in:

- scheduling
- owner changes/delays
- pace—quickness of project timeline
- owner/architect contracts
- regulatory controls
- timely transfer of information.

Since many of the project management issues involve the client, Jim recommended that architects better understand their clients. About 80 percent of architects are introverts while 80 percent of clients are extroverts. Most architects are right-brain focused—creative, intuitive, and find new ideas exciting. Most clients are sensate, left-brain focused—linear, listers, and sequential problem solvers. Architects should base each project management process on the specific needs of the client and project.

Managing many projects requires jointly developing a responsibility chart for a team to:

- analyze tasks required to meet goals
- self-delegate each member's role
- clearly establish who is responsible for what.

The key to successful small-project practice is carefully managing your time and projects.

## The Successful Practice of Residential Architecture

*Laurie Maurer, FAIA, Rosemary McMonigal, AIA  
Sarah Susanka, AIA*

*Moderator: Donald Jacobs, AIA,*

*Summary by Rosemary McMonigal, AIA*

Some say it's difficult to survive as a residential architect because there is little money to be made and client expectations are too high. So why are workloads increasing at many financially robust residential firms? The three presenters outlined their firms' approach to residential projects.

Laurie Maurer's firm size ranges between four and six people, allowing Laurie to stay personally involved in all phases of their projects. Their projects are mostly residential, very highly detailed and they have won a number of awards. Laurie's work is through referrals from past clients. They spend no time marketing (they don't use the word) and each year the firm turns down more work than they take. The inflow of work has been built on an excellent design reputation. They are known for solving everyday problems beautifully.

Laurie presented five criteria that their firm have found to be *equal in importance* in successful residential practice:

- Personal satisfaction
- Contribution to the art and craft of architecture
- Service to the client
- Financial solvency
- Recognition.

Laurie's firm uses computers for word processing and spreadsheets. They prefer to hand draw all their work.

Founded in 1983, Sarah Susanka's firm has grown to over 30 people with a recently added branch office. Their firm structure is unique in that each principal and associate runs a small practice within the office. They each do their own marketing, negotiating contracts, and producing work. This reduces the scale of the larger office, maintains personal contacts with clients, and allows the principals to continue to do architecture.

Sarah's office does almost all residential work. They have found a tremendous need in the residential market for architect-designed houses. Sarah has found that everyone is interested in houses. Marketing is their strength—they regularly publish projects, lecture, and present to the public about housing.

What is really unique about Sarah's practice, is their willingness to understand what a client needs and expects. They educate the client about the variety of services and carefully tailor the services they offer. Sarah's office regularly provides a range of service—from full service, to schematic design only, to plan review consulting. Their role as a trusted navigator is evident in all their service.

Sarah's office uses computers for all office functions. Each associate decides whether to use CAD or 3D programs on a project. Currently, they use CAD on about half of their projects.

Rosemary McMonigal's firm of five people does a mixture of housing, institutional projects, child care centers, and planning. Their approach is very collaborative on residential projects. In residential projects, they typically emphasize an initial feasibility stage and then the typical scope from schematic design through construction administration. McMonigal Architects uses AutoCad Light for all their drawings after the schematic design stage. They still model mostly in cardboard but have used 3D Home Architect and UpFront on some projects.

Rosemary's role in the presentation was to emphasize small residential projects practice. Here are some of the tips and techniques that firms use.

- Make quick decisions—there isn't time to evaluate a dozen solutions.
- Simultaneously evaluate design solutions with scope, budget, and schedule parameters.
- Reach an early decision point for client to approve budget and decide to proceed.
- Use concise communication with minimal jargon.
- Combine phases of design.
- Limit length of time and number of meetings.
- Assign tasks to the client, for example have the client go to showrooms to select plumbing fixtures and fittings.
- Retain a structural engineer experienced in small residential projects.
- Consider doing mechanical and electrical work on a design/build basis with the subcontractor.
- Use documents for small projects—AIA Small Project Agreement forms, Masterspec SmallProject Specification.
- Furnish drawings and specification in detail proportionate to the project.
- Involve a contractor early in the process—discuss with the client the advantages of negotiated versus competitive bidding on a small project.
- Have the owner interview contractors, check references, and choose the contractor.
- Work closely with the contractor—make decisions in the field rather than documenting every detail.

Finally, as Sarah Susanka stressed: change your thinking about the residential market, understand the process, achieve an agreement on services, and work with clients to fulfill their expectations.

## Financing Residential Projects

*Robert Clough, FAIA*

*Melissa Downey*

*Summary by Donald Wardlaw, AIA*

A broad overview of how residential financing works touched on a few key fundamentals.

### The secondary market

The individuals and groups that eventually end up holding a mortgage as an income-producing investment comprise what is known as the secondary market. They set guidelines on creditworthiness, loan-to-value ratios, debt-to-income ratios, etc. The two biggest investors in the secondary market are Fannie Mae and Freddie Mac.

### The mortgage underwriter

Commonly known as the "lender," this business entity works to ascertain whether a borrower's income, assets, liabilities, and payment patterns suggest the ability and willingness to repay the loan in accordance with its terms. The underwriter is working to create a security that conforms to the guidelines of the secondary market. The underwriter may sell the loan to raise funds to make new loans.

### Qualification ratios

The upper limit for housing costs (mortgage, taxes, insurance, special assessments, etc.) is normally about 28 percent. The upper limit for total debt to income is about 36 percent. Higher ratios are sometimes allowed in affordable housing programs. Mitigating considerations in circumstances of high ratios are: low loan to value; substantial reserves; and, established savings patterns.

### The appraisal

Appraisals review the condition of the lot and structure, services and utilities, and neighborhood factors (although socio-ethnic factors are not lawfully considered) to determine the market value of the property. Two common approaches are the cost approach and the market approach. In the cost approach, the appraiser values the lot as though vacant, estimates a cost to construct the house with current materials and methods, then depreciates to the to reflect present conditions. In the market approach the appraiser relies on prices paid for comparable properties in the general area. In some cases it may be advisable to be present when appraisers take measurements—their square foot calculations can significantly affect financing prospects. Below-grade spaces are often not considered in square footage, although they are considered in the value. There is no bonus for "architect designed."

## Construction financing

Of the architects present, 10-15 percent said they assist their clients in obtaining construction financing. The architect's documents are reviewed by the lender and used in appraising the anticipated value of completed work. Construction is normally funded by interim financing, which must be repaid at completion of construction. Interim financing may be provided by an institution that eventually provides the long-term mortgage (known as a double-close package) or it may be provided by a different lender. Banks do not typically require architects to validate installed value, but generally rely instead on their own inspection experts.

## FHA203k

Designed to foster rehabilitation and revitalization of single family properties and neighborhoods, the FHA 203k federal program allows people to borrow up to the full value of a property, including proposed improvements. It is essentially a zero-equity loan and it must fall within local FHA maximum caps. The first \$5,000 must be applied to health and safety improvements. Borrowers may be owner-occupants or investors. It is practically necessary to work with a lending institution that is familiar with the mechanisms of the program.

## Energy efficient mortgages

Fannie Mac and Freddie Mac allow a 2 percent increase in qualifying ratios for properties that meet certain energy efficient criteria. The properties must use cost-effective design, materials, equipment, and site orientation to conserve nonrenewable fuels and must have proper design, insulation materials, and equipment consistent with the climate of the area. These mortgages can be acquired for existing homes if the appraiser rates the energy conservation characteristics as high.

## FHA Energy Efficient Mortgages

Energy improvements over and above current FHA standards (CABO 1992 Model Energy Code) may be financed at 100 percent of cost, regardless of whether cost puts buyer above normal qualification ratios, providing the total cost is less than the present value of the energy cost savings anticipated over the expected life of the improvements. There are dollar limits on the amount financed for energy improvements (a maximum of \$8,000). Total loan costs are subject to FHA limits.

## Value Pricing Design Services

*Frank Stasiowski, FAIA*

*Summary by Charles Matta, AIA*

Architects in small firms often struggle with cash flow due to the low overall fee that each small project brings. The following points will help you price for value and profits.

**Point One:** You do not need to charge less for architectural services as you become more efficient in your design and drawing delivery. Small architecture firms have become more efficient (in most cases) in delivering architect services, in part due to the use of technology (e.g., computers for contract documents, the Internet for research). However, they are billing less for these services, if they continue to bill on an hourly basis, because they are using fewer hours for the same task. The following is an example from a profession that handles pricing of services differently; therefore does not share our money woes. If you seek the services of an attorney to draft a will, you will most likely be charged a lump sum for this service (say \$1,000 +). This attorney is billing you for the value of the service not the hours it took to prepare the will. It takes an attorney about an hour for this service (to plug-in your name and pertinent data on the word processor). Yet we never think of it as an hourly rate of \$1,000/hr. Why? Because the attorney did not bill us an hourly rate but a lump sum that equals the perceived value of the service. Architects can (try to) do the same.

**Point Two:** Do you feel you are not paid enough? If you answer yes to this question, then this is the time to boost your fees. The reason: the economy is on the upswing. If you truly believe that you are underpaid, are you going to wait until the recession hits before you critically address the value of the services you are offering?

**Point Three:** Price on value, manage on cost. Architects cannot make money by selling time (i.e., billing hourly). Therefore:

- Charge for the value of the service not the cost of it. Never quote an hourly rate (except when required for government contracts). Instead, evaluate the service you are offering and submit a value price—Lump sum.
- Prepare a price list for reimbursables and attach to your contract instead of applying a percentage mark-up for reimbursable.

- Stay competitive without cutting your fee. Get out of offering services everyone else is providing, especially when you are losing money on it. Instead invest in equipment and training for greater efficiency, and offer services you have a clear advantage in.
- Quote your price in pieces relative to the scope and present as a menu of items that can be added or subtracted from the services.

Good luck on your next contract negotiation.

## Design/Build: The Production Process

*Paul Doherty, AIA*

*Summary by Gabriel Durand-Hollis, AIA*

This presentation started with an overview of design/build and the performance advantages it yields. Doherty advised that design/build exceeds traditional project delivery methods by 12 percent on construction time, 30 percent on time for design + construction, and 13 percent on cost. The speaker also asserted that design/build yields improved aesthetic quality. However, I find myself unconvinced of this since all that Doherty offered in the way of evidence was a survey result.

The remainder of the seminar went into information and communications technology. The impact of the Internet and localized intranets as well as a host of new software capabilities were discussed. Doherty's basic premise was that the more standard, yet comprehensive, the data capabilities of clients, contractors, and architects, the better our chances of developing a seamless, real-time delivery of information. Some of the presentation material was beyond the scope and capabilities of the audience. The idea of a virtual job trailer with integrated project record and information management systems is valid. I suspect that with imagination, even the low-tech among us could implement some of the concepts to their practices.

## Flying Solo: Risk Management From a Small-Firm Perspective

*Paul Genecki, Hon. AIA*

*Summary by Mark Robin, AIA*

This 1997 AIA convention seminar was presented by a senior vice president of Victor O. Shinnerer & Company, Inc., who acts as an insurance consultant to the Institute. Being a sole practitioner with a definite small-firm perspective, I saw nothing in the presentation that was unique to small firms or small projects. When the presenter was asked what he would have said differently for midsize or small firms or projects, he said "nothing." Nevertheless there were still lessons that can be learned:

- Firms that recognize risk and manage risk are the ones that prosper.
- Manage risk by recognizing risk, avoiding risk, allocating risk, and having insurance.
- As problem solvers, architects have the tools to manage risk successfully.
- A change in either the owner or contractor communication style during a project is a red flag for a problem.
- An architect can assume duties not contractually his by his actions. Do what an architect is supposed to do and not what a contractor, owner, or someone else is supposed to do. Ordinary care by another architect in the community at that time is the standard of care.
- If you don't read your complete liability insurance policy (who does?), do read the exclusions.
- Keep good records. Be objective, state facts only, do not record opinions or conclusions as the cause of an incident or how it could have been avoided.
- Preserve the record with handwritten notes to the file. For admissibility and credibility, include the date and time of the noted conversation, meeting, etc.
- Make enough notes to be able to recall an incident some time in the future. A pattern of note taking on important issues is vital for credibility.
- Keep records at least the minimum time required by statutes of repose.

# The AIA CAD Layer Guidelines

*Richard Bunday, AIA*

*Summary by Hy Applebaum, AIA*

The AIA CAD Layer Guidelines published in 1990 have become the accepted standard in the industry.

In 1997 the AIA will produce a new version to simplify the methodology and make it user friendly. (I personally have had a difficult time using it for small projects.)

## Tips I gleaned from the Seminar:

1. Keep a CAD file folder for each job that contains:
  - a. General information about your CAD setup, such as your layer system, color and their corresponding weights, line types and their use, text styles, and blocks. Also keep a current list or index of the generated CDs and their file name.
2. Keep a log in the folder of each CD used dealing with scales, layers used to make up the drawing, x-reference drawings used, and any other pertinent information you might forget about later that generated this particular CD.
3. Show the file name of the CD on the sheet itself.
4. Have a schedule block on each sheet to record and keep current on the layers used to generate the CD.

# The Evolving World in which Architects will Practice

*Hugh Hochberg, Associate AIA*

*Summary by Hy Applebaum, AIA*

## I. Trends in the world around us:

1. Clients today are smarter and have clearer expectations of an architect's services.
2. The built environment activities have gotten more complex.
3. There is more competition for the work from within and outside the profession of architecture.
4. There are intermediaries with special expertise hired as consultants by clients who can influence the selection of an architecture firm or undermine the architect's ability to deliver a project with their own agendas, which may be at odds with those of the client.
5. Politics and the economy are shifting government burdens to privatization, which may slow the economy in about two years.

6. The strong markets domestically and globally will be in:
  - a. Health
  - b. Education
  - c. Retail
  - d. Entertainment/Leisure
  - e. Corrections
  - f. Technology.
7. Given a choice, development money will be spent by the people in their own communities.

## II. Trends Within Firms and in the Profession:

1. Stronger technology applications will affect your practice.

The positive side:

- a. Your work will be of better quality and more thorough.
- b. There will be better communication with clients via documentation.

The negative side:

- a. There will be a breakdown in intraoffice communication as people will not talk to each other.
- b. The office may have the technology available, to be state of the art, but the obsession to be ahead will keep them from ever using that technology as well as they could.

2. The pressure to staff will last about 1½ years and then taper off.
3. Firms will recruit from competitors to get the best talent.
4. Architects are being hired by nonarchitecture firms.
5. Firms must foster professional development or they won't be competitive.
6. Women will gain in prominence as clients and within architecture firms.
7. Women will be more influential.

## III. Marketing:

1. Value awareness and price sensitivity of clients will affect marketing.
2. Firms are doing more to identify and develop a *client relationship* as part of a strategy that may include *chasing projects*.
3. Architects need to identify what they do best and want to do best. Find the clients that are in synch with you.

#### IV. Accountability:

Practitioners are recognizing that providing real value to clients requires *accountability* to clients.

#### V. Alliances:

Alliances will wane in effectiveness and popularity as it becomes apparent when push comes to shove, the first priority will be the firm, not the alliance.

#### VI. Profitability:

1. Architects today are more value oriented and more efficient.
2. The market today is more profitable than a decade ago.
3. Firms are investing in marketing means to make less profitable firms not be competitive.
4. Understand that profitability is not a dirty word and seek compensation commensurate with the value you give.

#### VII. Characteristics of Dominant Firms:

1. Practitioner led
2. Specialty oriented
3. Immersed in client's world
4. Politically astute
5. Have excellent communication skills
6. Move quickly and made decisions rapidly; it's possible to make bad decisions yield good results because of timing.
7. Ride a technological wave; capitalize on a technological wave; capitalize on a certain level of technology and update incrementally and not continuously
8. Engage in professional development; hire good talent and provide a higher quality of service than the client expects
9. Be profitable and reward good performers
10. There is a realization that clients are value-oriented while architects tend to be quality oriented; at a financial level, quality is a cost issue and value is a price issue.

## Negotiation as a Core Skill: What Small-Firm Principals Need to Know

James Franklin, FAIA, ASLA

Summary by Rosemary McMonigal, AIA

At the core of your professional practice is excellent negotiation skills. Negotiating is the normal way we communicate back and forth to get the right things done in the best way possible without damaging the relationship. Is this you?

- Negotiating is unprofessional. I'll just quote my fee and that's that.
- If I were to negotiate hard, I'd damage the architect/client relationship that's so essential to the project.
- Getting the project is the main thing. There are so many architects around just waiting to undercut my fee, I'd better just take the project and do so well with it we'll amend that contract later and I'll get all their future work.

Jim Franklin quoted Fred Clarke III, Caesar Pelli & Associates: "*The bad news or the good news comes when you sit down to set the fee—and it stays good or bad from then on.*" If negotiation is the single most important thing you do on a project, you owe the negotiation the same design skill and creative thinking you bring to the project itself.

What's different about negotiating a project with a client?

- The stakes are often higher. (And that's good!)
- You don't have a strong relationship yet.
- The process is usually more structured.

So, what you need is a structured process for negotiating that can help build a relationship.

Many of the more successful architects report they write an outline of what they anticipate that they, the client, and the contractor will do in connection with the project. As the level of understanding with and by the client is further developed, the scope of services and project requirements are elaborated on. At this point, many projects move ahead with the architect working on an hourly basis to predesign the project with an agreement referencing both the scope memo and the standard contract form to be used. When it works well, the architect and client jointly play "what if" and problem solve what will happen if things go wrong. Final negotiation is based on a plain-English scope memo, which is attached to the standard form of agreement as the definition of the scope of services.

Jim presented how an “ideal” negotiation might work:

- You make a proposal.
- They make a counter offer, stating their position, which you listen to very carefully to learn the underlying interests behind their position.
- You sidestep their proposal by neither resisting it nor agreeing. At the same time, you acknowledge them, showing respect for them personally. You ask clarifying, problem-solving questions that are open-ended, that can’t be answered yes/no.
- You “play back the tape” to show that you’ve heard what’s in question, except you reframe the questions to include the interests as well as the positions of both of you. The message: personal respect and that “we” have a shared problem.
- You agree with as much of their position as possible (even the smallest part) and expand it into “their great idea”—a breakthrough strategy.
- The “we” then work together on the strategy to find a mutually beneficial agreement based on the merits, rather than on the relative power or strength of will, of either of you. *And remember the first rule of negotiating: never make an important decision at the negotiating table. Take a break and sleep on it.*

Ideally, setting the fee comes last, though money is an issue for discussion all the way through. Rather than trying to evade it (clients won’t let you), keep giving honest estimates, brackets of cost that they have to anticipate and that you can live with.

Above all, try disclosure. If this is going to be the close working relationship that can produce excellent projects, they eventually will have ample opportunity to find out all about you, your practice, and how you work and think and feel. Telling them a lot up front encourages them to share what they really want and need. It moves the discussion upstream of the bottom line positions. *It builds trust.*

## Power and Leverage: How To Get It, How to Keep It

Ava Abramowitz, Hon. AIA

Summary by Diana Melichar, AIA

Ava Abramowitz, formerly deputy general counsel for the AIA, conducted a lively seminar focusing on the negotiation process. In this seminar, we learned the definition of “principled negotiation” and its resulting benefits.

The goal of principled negotiation is not to win over the other side, rather it is to win the other side over. From the beginning, both sides in a negotiation have something in common otherwise they wouldn’t be talking. It is important to find that common ground, work out the differences, and close the negotiation with an agreement that will last.

In principled negotiation, neither party “wins” in the final agreement. “Winning” an agreement forces one party to be the loser. Ultimately, the winner also loses because the trust and good will of the losing party has been destroyed. Principled negotiation focuses on the problem, not some supposed enemy, leaving personalities and egos aside. In this way, the interests of both parties are accommodated in some form, creating a win-win situation.

Principled negotiators ask questions and provide feedback to gather information, build good will, and show respect for the other side’s interests. The trick is, the more you listen, the greater your leverage to win the other side over. His or her objections can be diffused and your interests increased as you provide alternates for the position taken by the other side. As you learn about the other side’s interests, you can clearly express *your* interests as well. Good negotiators only think about themselves. Great negotiators work collectively on the problem.

What if the other party doesn’t want to negotiate? Ms. Abramowitz suggests that you formulate as the Harvard Negotiation Project teaches, a “best alternative to a negotiated agreement” (BATNA) *before* negotiation begins. In this way, you have the power to decide for yourself in advance what is an acceptable term and what you should walk away from. Ideally, your BATNA will open another avenue for you and the other side to begin negotiations again.

By all means, be sure that you are clear and concise when communicating with the other side. You can’t get something that you don’t ask for, and likewise you cannot read the other person’s mind. There is always a reason for what the other person is saying. Don’t assume their motivations. Instead, ask them for more information.

Above all, Ms. Abramowitz recommended practicing your negotiations before entering the actual arena. Practice with firm members, advisors, friends, spouses—anyone whom you can trust to give you feedback and help you think through different scenarios. Your ultimate goal is a negotiated agreement that will remain intact without falling apart. To close well, you must make sure that both parties feel as though they have won.

## Successfully Adding Interior Architecture to Your Practice

*Richard N. Pollack, AIA, IIDA*

*Robert Steinmetz, AIA*

*Summary by Donald Wardlaw, AIA*

Both presenters began their careers in general architectural practice. Their thesis is that interiors architecture can be a profitable niche for firms already engaged in general architectural practice.

Steinmetz and Pollack counseled against sole practitioners or very small firms branching out into interiors work. It was claimed that the pace was too fast, that there were too many things to coordinate and manage in a short period of time. Did someone say small project? The warning was met with skepticism in at least one seat.

If one wishes to add interiors, a first step would be to inventory the firm's current expertise, its clientele and their need for interiors services, and whether the firm is already doing work that could be considered interiors work. It was recommended that interiors marketing have an interiors focus; that it not get lost in a broader firm portrait.

A full-time marketing coordinator and principal-level commitment were also advised. One wonders whether a marketing coordinator would be necessary in small firms that are already adept at small projects. They also recommended devising a marketing plan specifically for interiors work.

It appeared that the largest interiors market was commercial/institutional interiors. A few marketing techniques were mentioned including: informative brown bag lunches for commercial/corporate clients (e.g., what to consider in planning office interiors, or the latest trends in furnishings), developing relationships with facility managers and leasing agents (brokers often have advance knowledge on when and where interiors assistance may be needed), or special tenant services design to foster a relationship (ADA consulting for example).

Many interior decorators buy and resell the furnishings they specify. Fewer architects follow this practice. There is an opportunity to both provide furnishings to a client at a discounted price, and keep a lid on the base design fee with this practice. There were two recommendations for firms that choose to follow this course. First, be absolutely clear and upfront with the client as to the designer's interest in the sale of the furnishings. Second, set up a separate corporation for these transactions. The second corporation, it was argued, will offer the design firm some protection from product liability risks, and help the client see the division between the two services being provided.

Other interiors firms prefer an agency role with respect to furnishings. The service provided is in helping the client effect the purchasing of furnishings.

There are a few parallels between interiors projects and architectural projects that we refer to as small projects. (Maybe we should have been thinking of interiors projects as small projects all along). Six notable characteristics of interiors projects are:

- fast pace
- small scale
- high level of client involvement
- lower technical content
- value is added via selected rather than constructed items
- different risks for design team—no roofs or exterior walls.

Steinmetz and Pollack noted that architect interior designers command above-average salaries. It was suggested that the architectural education is a better preparation for the project management duties of senior positions. Many firms have reported difficulty in retaining people with interior design skills. Further investigation often reveals that interior designers are not visible at associate and principal positions and it is thought that the message to skilled interior designers is: no opportunity here.

Offices that intend to broaden into interiors market should begin thinking about where they want to put the library, since it typically consumes far more space than an architectural product library. What is worse, an interiors library will go out of date much faster. Trade shows like NEOCON are important elements in a program to maintain a current library. Midsize interiors firms often hire a librarian. Steinmetz was asked about the cost of acquiring a useful library of fabrics and the high cost of swatches. He noted that his firm has a policy of never paying for samples and it seems to work.

The financial and project management aspects of interiors work offers other parallels to what we see in small-project practice. Steinmetz claims to send out about 120 invoices per month. He has found it useful to work on weekly billing cycles, in part because bills seem to get paid faster if they are received quickly after the completion of a stage of work. Presumably he is billing by phase. Computerized tools to manage the billing are indispensable.

Project management is characterized by many simultaneous projects. Clients expect answers quickly, especially in meetings. And to make things interesting, interiors architects face heroic challenges in scheduling, since the contractors on the project are not the suppliers and the suppliers, if they are late, can cause havoc. Many furnishings are not warehoused but fabricated in quantity as needed.

Profitability occurs in an environment of a high volume of projects in a given period. An advantage of this situation is that one bad project probably will not take down the whole firm.

Those interested in pursuing this should consider the AIA Library and the Interiors PIA as resources.

## Environmental Resources and Design Tools . . . To Give Your Firm a Competitive Edge

Kristine Anstead, AIA

Gail A. Lindsey, AIA

Summary by Gabriel Durand-Hollis, AIA

This presentation provided attendees with a list of resources for researching environmental issues along with tips and techniques on how to apply environmental issues to your practice. Anstead and Lindsey generated a handout of a single page (environmental concern—conserving paper) which charted what they had defined as the categories of environmental concerns and the levels of definition. A slide show highlighted the various referenced handbooks, manuals, and guides, which were paired with a sentence or two on the most valuable information available from the specified publications.

### General Information

- *Greening of the White House*—Energy efficient materials and practices used at the White House
- *Environmental Building News*  
Newsletter providing information on the latest developments in techniques
- *Sustainable Building Technical Manual*  
Reports technical information
- *Our Ecological Footprint*  
Resource Management—demonstrates that if the worldwide consumption of environmental resources matched the rate of consumption within the United States, the population would require three planets worth of resources to sustain life

### Community Development

- *Sustainable Communities* (video)—Case studies  
*Environmental Design Charette Workbook*  
How to stage a charette in your neighborhood
- *Sustainable Development News*  
Newsletter Indoor Air Quality Materials
- *EPA Indoor Air Clearinghouse*  
Synopsis of federal information
- *Healthy Buildings and Materials* (video)  
Overview of issues
- *Environmental Resource Guide*  
Compilation of sources

### Energy

- *Designing Low Energy Buildings*  
Commercial applications
- *Efficient House Source Book*  
Residential applications
- *Energy Design Handbook*—A college-level course teaching principles of energy design

### Water/Waste Management

- *Recycled Content Building and Construction Materials*
- *Construction and Demolition Debris Recycling*

## The Impact of Indoor Air Quality (IAQ) During Renovation and New Construction Projects

Roger G. Morse, AIA

Summary by Cynthia Pozolo, AIA

Presenter Roger G. Morse, AIA, of Morse Associates in Poestenkill, N.Y., focused on simple, straightforward procedures to help eliminate problems of IAQ during renovation and new construction. His well-organized presentation identified potential IAQ problems and sources and then recommended solutions and information sources available to practitioners.

Since many members of the Small Project Form focus on renovation projects, his seminar, which is summarized below, is particularly relevant.

Morse noted that indoor air problems are usually complaint driven. As he says, “*usually such complaints are justified or at least have a basis in fact.*” Subsequent investigation and corrective measures overwhelmingly involve correction of a ventilation deficiency.

Other problems are often caused by construction dust or the outgassing of volatile organic compounds from new materials on the project (e.g., paint, carpet, wall coverings).

Since any renovation project in an occupied building has a high risk of generating IAQ complaints, some steps can be taken to avoid them. The architect and renovation team can:

- Set up controls to minimize the impact of the new construction on existing occupants
- Meet with affected occupants to discuss IAQ and help avoid complaints that arise out of fear and ignorance
- Respond to complaints in a timely and thorough manner.

To better assess IAQ issues, Morse suggested that architects develop a better understanding of the source of problems. Airborne contaminants commonly associated with construction are:

- *Dust*—Even though much of the dust produced during demolition can be categorized as “nuisance dust” without significant health effects at typical exposure levels, it can be damaging to computers and other office equipment.
- *Volatile organic compounds (VOCs)*—Organic vapors released by construction processes or materials such as paint, roofing, solvents, adhesives, and caulks. VOCs are one of the most frequent causes of IAQ complaints from occupants adjacent to construction work.

- *Emissions from equipment*—Combustion products, such as carbon monoxide and unburned hydrocarbons.
- *Mold and mildew*—Just as the causes and migration of molds differ in warm and cool climates, so do the industry's methods of dealing with mold in an occupied building. Approaches range from an asbestos-type program to a bottle of bleach. Morse offers additional information specifically dealing with mold and mildew.
- *Asbestos, lead, mercury, and PCBs*—Dealing with these materials is best left to those specialized in those areas. Morse suggested documents from the National Institute of Building Sciences as sources of additional information.
- *Closed or tight building problems*—Changes to a building HVAC system during construction can result in a disruption to proper ventilation and result in tight building syndrome complaints.

Other sources of IAQ problems are based on contaminant movement through the buildings. They can result from:

- *Direct contamination*—Often following prevailing air flow from areas of higher pressure to areas of lower pressure.
- *HVAC system*
- *Tracking*—Carried on tools and equipment.
- *Fresh air inlets* and windows often let in VOCs from roofing or combustion from operating machinery.

Morse also spoke extensively on control measures and indicated that some are borrowed from asbestos and lead remediation techniques, while other deal with material selection and construction phasing. In addition to several common sense tips, such as local exhaust ventilation, housekeeping, and scheduling, Morse outlined four key control measures:

*Physical isolation* of the work area, including walls, sheet plastic barriers (at least 6 mil thick), ventilation seals, and opening protectives. Also recommended were walk-off areas and HVAC shutdowns, whenever possible, to ensure further isolation.

- *Pressure differential* isolation of airborne contamination. Though Morse stated "There is no such thing in the real world as a physical barrier that will prevent the spread of airborne contamination adjacent to a work area," he indicated that "maintaining the work area at an air pressure lower than the surrounding spaces is the only effective method of insuring isolation". Based on recommendations outlined in the ASHRAE Handbook of Fundamentals, several options are

available, but must be designed based on building design, HVAC system design, and effects of natural processes, such as stack effect and infiltration.

- *Ventilation* of the work area to reduce contaminant levels, which can be accommodated either by the introduction of outside air to the work area (with proper pressurization in place) or by circulating and cleaning air within the work area. Morse outlined guidelines for the number of air changes per hour, from 4 to 20, depending on the activities taking place.

High Efficiency Particulate Air (HEPA) filtered fan units are often very effective in providing proper ventilation to address IAQ issues, but Morse pointed out that they only stop particles (such as asbestos), not VOCs (fumes and odors).

Morse concluded with some information source referrals, which are included below, and emphasized the need to bring trained professionals into projects with specialized IAQ issues, such as asbestos abatement and lead-based paint. He also recommended use of mechanical engineering professionals to design and monitor HVAC and pressurization and solutions to IAQ problems.

Morse stated that several links and guidelines will soon be available on his Web site, which will also contain guideline specifications for IAQ controls for a project.

For further information, contact:  
*National Institute of Building Sciences*  
 1201 L Street NW  
 Washington, DC 20005  
 (202) 289-7800

The National Institute of Building Sciences (NIBS) is an organization founded by Congress to address issues affecting the construction industry that are national in scope. NIBS has formed committees of experts and developed guidance documents for dealing with asbestos and lead in buildings. Their documents have become the de facto standard for this type of work. There are two manuals for dealing with asbestos and two for lead-based paint. One manual deals with the design and specifying of abatement projects. The other deals with the design and execution of operations and maintenance programs. The manual on asbestos abatement is the basis for most of the technology for isolating work areas. The manual of lead-based paint remediation offers many useful work practices. Those with historic preservation projects will probably find this manual essential. These are strongly recommended for anybody who encounters asbestos or lead during the course of a project.

- Asbestos Abatement: There are separate manuals for abatement and O & M
- Asbestos Abatement and Management in Buildings Model Guide Specifications
- Guidance Manual—Asbestos Operations and Maintenance Work Practices
- Lead-Based Paint: There are separate manuals for abatement and O & M
- Specifications for Reducing Lead-Based Paint Hazards
- Guidance Manual—Lead-Based Paint Operations and Maintenance Work Practices

*SMACNA—Sheet Metal and Air Conditioning Contractors' National Association, Inc.*  
 4201 Lafayette Center Drive  
 Chantilly, Virginia 22021  
 (703) 803-2989

SMACNA is known for providing straight-from-the-shoulder advice on issues involving HVAC systems in buildings. They have developed several manuals on indoor air quality. The one most applicable to the topic of this session is:

*IAQ Guidelines for Occupied Buildings Under Construction*  
 Morse Associates  
 504 Snake Hill Road  
 Poestenkill, New York 12140  
 (518) 283-7671  
[www.morse-associates.com](http://www.morse-associates.com)

## The “New Look” of ADAAG

*Lawrence G. Perry, AIA*  
*Lawrence W. Roffee*  
*Summary by Cynthia Pozolo, AIA*

This presentation focused on the process and format of changes for the Americans with Disabilities Act Accessibility Guidelines (ADAAG), as recommended in 1996 by a Federal Advisory Committee.

The Federal Advisory Committee, formed in 1994, was composed of “architects, building code officials, and people with disabilities.” Their goal was to review, evaluate, clarify, simplify, and “harmonize” ADAAG with other barrier-free design guides and codes. The committee’s recommendations have been presented to the U.S. Access Board and the next ADAAG is expected to have some significant changes.

Numbering and sequencing of sections has been revised and advisory language will be included to clarify specific guidelines, much like the NFPA Life Safety Code Handbook. The new chapter organization will be:

- Application and Administration
- Scoping Requirements
- Building Blocks (fundamental criteria)
- Accessible Routes and Accessible Means of Egress
- General Site and Building Elements
- Plumbing Elements and Facilities
- Communication Elements and Features
- Special Rooms and Spaces
- Built-In Furnishings and Equipment
- Transportation Facilities

Mr. Perry outlined some major recommended changes to ADAAG and noted that many are of particular interest to the commercial real estate industry. A few of those recommendations are listed:

- Employee work areas—Revised text to “require an accessible route to each ‘individual employee work station,’ but not require that the work station itself be accessible.” This would not apply to boiler, furnace, and similar other support rooms.
- Reach ranges—Maximum height reduced from 54" to 48" above finished floor.
- Parking—Specific changes to requirements for “outpatient facilities” and valet parking exception.
- Elevators—One major change is the addition of a provision to address two new types of elevator systems: destination-oriented elevator systems, and limited use, limited application elevators. Another major change is proposed to the requirements for altered elevators to better address accessible “path of travel.”
- Toilet rooms—Omitted the option to use a 48" or 36" wide alternate stall in lieu of a 60" stall.

Since the formal review process involves multiple steps and public comment periods, a new ADAAG will not be adopted before the end of 1998. In the meantime, work is under way on accessibility provisions used by most state and local governments, with the emphasis again on “harmonization” with ADAAG and a new 1997 ANSI A117.1 Standard.

Similarly, the committee expects to influence both the single model building code and the International Building Code under development.

To better understand the proposed changes, you can obtain a copy of the ADAAG Review Advisory Committee Final Report, contact the U.S. Access Board, 800-USA-ABLE or (202) 272-5434.

# Digital Marketing Communication: How to Create Engaging Interactive Brochures and Presentations

*Stephen P. Maher, AIA*

*Summary by Donald Wardlaw, AIA*

In the course of developing a digital brochure, Maher's firm, Maxwell Architects, found an interest and business opportunity in multimedia development. Their experience in digital marketing may offer useful knowledge to other firms that are beginning to consider the prospect of using digital media (e.g., removable disks like floppies, CD ROM disks, and Web sites) in their marketing efforts.

For many firms the timing is right. First of all, clients now often have the necessary skills and hardware. Internet access is quite common. CD ROM drives and modems are ubiquitous. This means that if a firm creates a digital brochure, nearly all clients will be able to view it.

Adding to the appeal is the fact that architects are increasingly working digitally. Many images that may be useful in a marketing context are natural byproducts of normal architectural services.

Anyone out there have a pile of slightly out-of-date brochures somewhere in the office? Did they come at a small cost? Digital marketing materials can be just as expensive as printed materials. They can also be much less.

A key cost is related to whether a firm has sufficient in-house skill to produce the marketing materials or whether it would be necessary to hire a consulting design and production firm. Most small firms cannot afford to hire a dedicated geek. Fortunately, as architects grow more comfortable working with computers, the software needed to create marketing materials is also becoming much easier to use and relatively inexpensive to purchase. Many firms are already adept at scanning and simple image editing. Software for creating web pages has reduced web page layout and setup to a level of difficulty scarcely higher than that of using a word processor. The most difficult area remains the authoring environment (programs like Director, SuperCard and mTropolis). The authoring tools allow the assembly of interactive, animated, and sound assisted presentations. These tools were originally developed on the Macintosh so "difficult" connotes depth and complexity more than obscure logic. For those who want to keep cost and complexity to a minimum, digital brochures can be constructed as Web sites. They can be distributed on CDs (i.e. the whole site experience can be provided on the CD) and have some interactivity.

Maher cautions that firms hiring outside consultants to develop multimedia materials would be wise to provide for ownership of the product, rather than a license to use it. Maher's firm, Digital Media Design, is comfortable with this arrangement but other design firms may not be. Why is it important? A firm can hire anyone to update the materials, including someone in-house if the firm's skills allow it.

A key advantage of digital marketing materials, from an economic standpoint, is that they may be customized, revised, and produced in small quantity at a small cost relative to printed materials. (Although the growing popularity of high quality output office printers, both color and gray scale, is allowing some firms to have the best of both worlds—digital source, produced as needed, easy to view). They are ideal for focused marketing.

If a firm chooses a CD format, here are a few cost issues to consider. There are replication companies that specialize in the production of CDs in quantity. CDs are reproduced from a golden master which usually costs about \$500. In quantities of 500 or more, the per-CD cost is about \$1.10 (excluding the master cost). This information is based on Maher's area, Nashville. Replication companies normally include a full-color printed paper sleeve with each CD.

It is still possible with a CD created in this manner to have a pile, albeit a smaller pile, of obsolete materials in some corner of the office. Maher noted how their firm CD included a group photo of the employees of their firm along with resume information and a video presentation by each. Two of the people left the firm after the CD was produced.

Suppose a firm wants to produce fewer digital brochures, but on an as-needed basis, with information tailored to interests of a particular client or prospect? A nominal hardware investment makes production of individual CDs in-house possible. CD ROM "burners," as they are called, are now available in the \$600-\$1,000 price range. Blank CDs in 100 lot quantity run about \$5 each, down from \$10 a year ago.

If a prime benefit of digital marketing materials lies in the ease with which they can be produced in small numbers and customized, a no-less-valuable benefit lies in the kind and amount of information that they can include. Here are some of the things a firm might include in a digital marketing product.

- Video material (projects, project consultants, client testimonials, firm staff)
- Drawings and illustrations
- QuicktimeVR panoramas (sites, projects, interiors, computer models)
- Interactive 3D models
- Written materials
- Sample project document set
- Sounds and narration.

What really sets the digital materials apart, however, is the interactive way in which the information can be interrelated. A screen featuring a particular project might have links to photographs taken before the project was constructed, QuicktimeVR tours, design drawings/images, or perhaps video clips by the client or consultant wherein they might be saying something terribly flattering about the experience of working with the firm.

There are a few things a firm should take special care with in producing a digital product.

- The visual design and organization of the information will reflect on the visual and organizational skills of the firm. It is crucial that the navigational scheme be clear and easy to use. The layout should be done by someone with good graphic design skills (something many small firms can manage well enough).
- Be careful with videos of people. They can be very powerful. But many people lose their natural character and attractive qualities when they step in front of a camera. Sometimes a still image with a narration will be more effective.
- Create products that will run where you want them to. This means taking steps such as making materials cross platform and suitable for use on computers with average performance. CDs should be written for the older 2x or 4x CD ROM drives, not the latest 16x drive. Real Web sites of course require special attention to color (use a Web-safe color pallet that looks the same on all computers) And watch file size (while modems are ubiquitous it is best to assume that many people will be using relatively slow ones).
- If it is desired to include special file formats, like QuicktimeVR or VRML, provide an easy way for people to add this functionality to their systems. This means providing the software components (these are typically free and cross platform) either on the CD, on the Web site, or via a linked Web site.

If a firm produces a digital product, what is the best way to use it? Here are some ideas.

- A prospect calls and inquires about services provided by the firm. After some discussion an offer to send a CD of the firms work is made, as a prelude to further discussions. Based on what was learned about the prospect in the phone call, a customized CD is produced and mailed.

- A prospect calls and after some discussion invites the firm principal to visit the prospect's office for more detailed discussion of the proposed project. The firm sends the team over to discuss the project and leaves a CD or floppy as a calling card.
- A firm has targeted a certain client or client group for marketing purposes. After making contact a CD is offered.
- As part of a marketing effort to maintain contact with past clients, CDs are periodically sent out. Alternatively, a postcard of a recent project is sent along with an invitation to see this project in more detail, and other recent work, on the firms Web site.

For further reading Maher recommends the following: *Being Digital*, Nicholas Negroponte, Vintage Books, 1995. *Cyberspace: First Steps/Liquid Architectures in Cyberspace*, edited by Michael Benedikt, MIT Press, 1992.

## Sharpen Your Consulting Skills With Problem-Based Learning

David Premi, Assoc. AIA,  
Sharon Vanderkaay, Associate, AIA  
Summary by Diana Melichar, AIA

Problem-based learning was developed several years ago in Canada to enable doctors to understand their patients' needs more effectively through better communication. These techniques can be applied to the architect's work to improve communications skills with our clients and control risks.

All of us may have had recurring problems with clients or employees. How we deal with these problems can either reinforce our relationships or cast doubts in other people's minds. A recent study showed that 20 percent of architects' risk problems are technical and 80 percent are communications problems.

How do we constructively solve problems and improve communications? Problem-based learning suggests that we meet in groups of 5 to 10 people and discuss problems on a regular basis, preferably weekly, for a specified amount of time. *How* we discuss these problems in our weekly sessions is just as important as *what* we discuss.

Following is the methodology of problem-based learning:

In the groups:

- 1) Initiate a problem for discussion by one team member.
- 2) There should be one moderator and one observer in the group. The moderator will make sure that the session does not digress into war stories or a complaint session. The observer may take notes.
- 3) All other participants should actively listen to the person with the problem and:
  - Play devil's advocate
  - Ask naive questions
  - Challenge the person's assumptions.

At the convention, we were divided into groups to test the problem-based learning methodology. Members found this very simple approach remarkably empowering. Because a problem became detached from the person who was delivering it, the problem became an objective exercise for all participants involved. Everyone felt as though they had permission from other team members to probe a problem from many angles without offending anyone. In the end, a broader range of solutions was achieved.

The objective of the AIA convention session was to form new habits for problem-based learning. In the future, when faced with problem clients or situations:

Ask: What are we trying to achieve?

Ask: What can I learn from this?

Look for: Profit in problems—do not shy away from problems.

Look for: False assumptions.

By using these techniques, your relationships should improve considerably. Team members, clients, etc. can communicate more openly and less defensively.

## **Tapping for Dollars: Small Computers for Marketing, Promotion, and Client Management in Small-Project and Small-Firm Practice**

*Terry Beaubois, AIA, Joseph Hagan, AIA*

*Bradley Skaggs*

*Summary by Donald Wardlaw, AIA*

Beaubois, with only one life to live, runs his own architectural practice and a multimedia development firm and works for Apple Computer. Somehow finding there's too little time for creation of marketing materials, he stressed the importance of integrating work product into the marketing materials.

Beaubois also demonstrated an Apple technology, QuicktimeVR (QTVR) that is proving to be a useful tool for architects. QTVR is a kind of scene that can be viewed on computer (Macintosh or Windows) and allows the user to pan around and fly around a scene or object. The two types are panorama type and object type. These scenes or objects can be created with a computer, or they can be scenes or objects from real life.

A couple of computer modeling programs now create QTVR scenes, Archicad, and FormZ. Archicad is an integrated CAD environment and FormZ is a modeling environment. Both are cross-platform. Expect other CAD and modeling programs to support this technology internally.

To create scenes from real life, or from programs that do not internally make QTVR files, it is necessary to use Apple's multimedia authoring tools (best left to programming types) or a new software release, Nodester, by Panamation (very user friendly, fast, easy, and unfortunately Macintosh only). Creating object type QTVR files from real life requires careful repositioning of a camera and most architects will not find it sufficiently easy to do. Creating panoramic QTVR files is, however, relatively quick and easy. A camera must be placed on a tripod (with a special attachment that moves the camera position such that the center of the film plane is exactly over the pivot point of the tripod head) and then images must be taken at equal rotations. A tripod attachment costs about \$80 and provides indents at various points of a 360° revolution.

Photographic images must be converted to digital format, unless as in Beaubois' case the images were made with a digital camera. Once the images are in digital form software is used to stitch the images together into a panoramic strip. It is normally necessary to enter the degrees of revolution for each image, and the focal length/angle of view of the lens used. Once the file is in panoramic form, the software then connects the ends to make a cylinder.

QTVR scenes are viewed as if from within the cylinder. The user controls the direction of view with a mouse, and some zoom in and zoom out function is also provided. An amazing feature of this software is that it corrects for the image distortion, or parallax that is caused by the lens. Every view looks in correct perspective. The file sizes for QTVR scenes are very small (due to efficient compression technology), making them ideal for Internet use. The image quality can be very high.

Another feature of QTVR is that movies and links to other scenes can be imbedded within an image. Clicking on a spot, say the television in the scene, might then cause a video clip, with sound, to play on the tv screen. Clicking on another spot, say a doorway, can move one into another scene, room or "cylinder."

How might one use this? Beaubois gave a couple of examples. The site for a house is a 50-minute drive from his office. The client calls and a discussion ensues over a design detail. The client asks, "Is the birch tree on the left or the right of the driveway?" Viewing one of the site panoramas answers the question. This same could be done by taping together photographs, but the information in digital form is a bit richer (no distortion), easily distributed, and easily reused in marketing materials. By integrating floor plan diagrams with linked QTVR scenes, it is also possible to create digital tours of either built or proposed work.

Hagan takes a more conservative, keep-it-simple, but nonetheless effective, approach to using computers in marketing. He stressed the utility of economical common software to manage clients and market the firm. While many people associate desktop publishing with \$500-plus software like Pagemaker or Quark Express—software many major magazines rely on—Hagan finds Microsoft Publisher (\$79.99) works just fine, thanks. Publisher is used in-house to develop the layout for a double-sided quarterly newsletter page. The data files are then sent to a freelance desktop publishing consultant who then does a layout for printing (possibly in one of the more complicated programs). This process gives Hagan the graphic control desired by the firm and minimizes the outside design expense.

When the printed newsletter is returned, inexpensive mail label software, My Advanced MailList (\$56.95), is used to generate mailing labels, pre-sorted for 3rd class mailing requirements. It is then sent to a list of over 1,000 builders, clients, and prospects. Cost: under \$500 for lots of 1,200.

Hagan is also a believer in press releases as a way to get the firm's name before the public. They have developed templates with a word processor and can produce press releases quickly. Prior to attending the convention they issued a press release, "Memphis Architect to Speak at Architect's Convention." It was published in several newspapers.

Skaggs works for a midsize architecture firm, Studios, and is a proponent of using an integrated CAD environment in which the design drawings are integral with the technical descriptions, Archicad in his case. Thus as the design develops, new client friendly views are readily available.

Skaggs also finds the company Web site a useful tool in managing client contacts. Areas for specific projects can easily be set up and clients can access those areas (with a password) and see the latest designs, review details, leave comments, etc. QTVR scenes generated within Archicad are used extensively for this purpose. This can be a boon with clients who are very busy, or when committees are involved that are difficult to schedule into the same place at the same time.

While Web sites have marginal marketing value if they just sit there (uninvited visitors tend to be other architects or architecture students looking for work) they can be effective ways to keep your clients aware of the firm's latest work. Studios is active in inviting past clients in for a new visit.

Although digital images for the Web are best presented at low resolution, images used in paper brochures must be of a much higher quality. If these images are going to be kept in digital format (as opposed to slides) as Skaggs advocates, some means of storing and organizing these large files is needed. Creating a catalogue with a computer can simplify the process of retrieving specific images. The Cantos Cumulus Browser is one such database that works well for cataloging image files and, as Skaggs demonstrated, CAD library elements.

## Information Sites on the World Wide Web: Resources for the Practitioner

*Pradeep Dalal, Paul Doherty, AIA,  
Ronald Filson FAIA, Carole Twombly,  
Nicholas S. Musso, AIA  
Summary by Donald Wardlaw, AIA*

Given all the hype and publicity over the World Wide Web, a healthy skepticism regarding this technology might seem appropriate. Does the Internet/World Wide Web have something to offer architects?

According to the latest AIA firm survey, architects are adopting this technology in large numbers. Over 50 percent of AIA sole practitioners have Internet access and 90 percent of firms with 10 or more on staff have access. The Internet is making a mark on architectural practice in at least five major ways:

- **Firm Web sites.** First seen perhaps as a way to market by showing examples of a firm's work, Web sites are increasingly seen as company platforms for other functions. About 10 percent of all AIA firms have Web sites. This is expected to more than double in the next year. Web sites are more prevalent in larger firms.
- **Business research.** This covers everything from employment leads to code and product research—25 percent of sole practitioners are using their Internet access for this purpose. Web sites for manufacturers are increasing since it is proving in many cases to be an effective way to list and distribute current product data, CAD details etc.
- **Intranets.** This is really not a use of the Internet, but a replication of Internet functions and technology on an internal firm network. It encompasses internal email, project files, firm files and other firm resources. This is mainly used in larger firms, some of which do small projects.
- **Email.** 25 percent of all sole practitioners and nearly 50 percent of firms with staff size of two to four use email (with file attachments) to send drawings back and forth to clients and consultants. Many firms are using it for client communications.
- **Project-specific Web sites.** Along with Intranets, the hottest new development since email. It has applicability for firms of all sizes. Indeed, small firms do not need to look small when seen in this context. Over 50 percent of large firms are using these. It drops to 20 percent for firms 20 and larger. Expect the pace of adoption of this technology to accelerate.

This seminar focused on the information, presumably useful, that is available to architects with Internet access. According to Doherty, information resource sites are currently one of the biggest draws to the Internet. This report lists numerous websites at which architects may find useful information. For simplicity the first portion of the address (or URL), <http://www.>, has been omitted since it is common to all sites listed here.

The Council of American Building Officials, Occupational Safety and Health Administration, American Society for Testing Material, and National Institute of Building Sciences all have information architects may find useful. These sites are:

- [cabo.org](http://cabo.org)
- Recent newsletters available for downloading
- [ohsa.gov](http://ohsa.gov)
- [astm.org](http://astm.org) • Site allows keyword searches for ASTM standards, lists summary for found standards and allows, with credit card information, mail or fax back of complete standard text
- [nibs.org](http://nibs.org).
- Current newsletter available for downloading. Links to Spectext.

A good rule of thumb is that if you must buy it now, it won't be free on the Web. The standards organizations will, however, make it easy to purchase what they offer.

"Resource" sites are sites that offer links to other information. As an example Doherty noted that the Building Site offers access to the major building codes. Precisely, it has links to the Web sites for the major code organizations, all in one location. Do not expect to visit the ICBO site and do a word search of the Uniform Building Code. It is not a perfect world yet.

- [buildingsite.com](http://buildingsite.com)

Other resource sites with "yellow pages" type listings of other sites are:

- [building.org](http://building.org) • an extensive directory of building related sites
- [buildingonline.com](http://buildingonline.com) • Containing about 30,000 links to building and construction-related sites including architects, product manufacturers, industry associations, software vendors, and more. Loaded with advertisements but the information is accessible and free.

Product research is coming of age on the Web. There are two prominent product information sites on the Web: Architect's First Source and Sweet's. Both have pretty good product listings, contact informa-

tion, and, in some cases, links to company sites, trade associations, and downloadable CAD files.

- [afsonl.com](http://afsonl.com)
- [sweets.com](http://sweets.com)

Musso notes other uses, beyond directories and product information, that the Web may offer architects. The first is continuing education. Web sites offer opportunities to expand one's knowledge and expertise. One example is a student masters thesis on daylighting, the findings of which are available on the web.

- [tulane.edu/~tsalongo/](http://tulane.edu/~tsalongo/)

Another use lies in expanding the working relationships between schools and the profession. Musso notes the Vital Signs site, University of California at Berkeley, which involves students in developing methodologies for assessing the performance of existing buildings.

- [ced.berkeley.edu/cedr/vs/](http://ced.berkeley.edu/cedr/vs/)

Filson, neither an academic nor a technologist, offered some insights gained as a practitioner who has begun to explore and use the Web. He notes that surfing is an inefficient way to use the Web or one's time. It is better to develop a short list of sites that can offer ongoing useful information. Among those on that list should be one or two of the search engine sites—sites that help find other sites. Examples are:

- [altavista.com](http://altavista.com)
- [yahoo.com](http://yahoo.com)

The AIA Web site offers members free access to the CBD and CMD Early Planning Reports.

- [aiaonline.com](http://aiaonline.com)

Also available on the AIA site is the catalogue for the AIA library. Both members and nonmembers may

search the catalogue. Members may check out books online, which will then be shipped via UPS.

Filson also notes a few sites devoted to business news. Normally information is organized by industry, market or client type.

- [excite.com](http://excite.com)
- [dejanews.com](http://dejanews.com)
- [infoseek.com](http://infoseek.com)

For research topics and building type documentation, Filson recommends what he calls "Architectural Catalogue Site," most of which are university based.

- [inforamp.net/arch/archome.html](http://inforamp.net/arch/archome.html)
- [arch.buffalo.edu/pairc/index.html](http://arch.buffalo.edu/pairc/index.html)
- [aecnet.com](http://aecnet.com)
- [mip.berkeley.edu/  
query\\_formsbrowse\\_spiro\\_form.html](http://mip.berkeley.edu/query_formsbrowse_spiro_form.html)
- [toronto.edu](http://toronto.edu)

To keep all this information manageable, Filson suggests that some organization is needed. His approach is to develop a set of categories for what he calls the "A List," which is sites worth visiting on a regular basis. He also notes that it would be helpful for architects to share information on sites they have visited and found useful.

One site not on Filson's lists was for the Small Project Forum. It might contain categories of links to sites of interest to small project and small firm architects. It might contain an organized listing of sites with manufacturer's downloadable CAD details. It might contain comments on sites by SPF members who have visited them. It might contain a list of SPF members organized by locale, firm size, or project type. It might contain a directory of SPF member's web sites so that other members could see the ways in which sites of small-project and small-firm

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