ARCHITECTURE

Milwaukee’s Grand!

ARCHITECTURE AWARENESS WEEK
OCTOBER 1-10 1982

EVENTS

OCT. 1
- Sandcastle Competition
- Bradford Beach - Noon to 4:30
- Presented by UWM School of Arch.
- Open to students, architects, public (teams encouraged)

OCT. 4
- SE Chapter Architecture Awards
- Grand Ave. Mall - 4:30 to 6:30
- Public Invited

OCT. 6
- Milwaukee - A Look Into The Future
UWM - 7:30 P.M.
Engelmann Hall
Rm. 245
Roundtable Discussion by Architects, Regulators, Citizens and Developers
Public Invited

OCT. 7
- Louis Mumford
- Alumni Film Series
UWM - 7:30 P.M.
Engelmann Hall
Public Invited

OCT. 8
- Architecture Awards Display
Bayshore Shopping Center
Public Invited

OCT. 9
- Grand Avenue Tour
Grand Ave. Mall - 1:00 P.M.
Tour of Historical Locations Within the Grand Ave. Mall
Public Invited

seasoon chapter  •  wisconsin society of architects  •  american institute of architects
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**COVER CREDIT**

Wisconsin Telephone ESS Center; Eric Oxendorf, Photographer; Pfaller-Herbst Associates, Inc., Architects
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A/E Firm Tells How It Is Using A Microcomputer And Lessons Learned From Owning It

by Rick Parfrey, AIA
Ed Ornes, PE
STRANG PARTNERS, INC.

With the tremendous proliferation of information coming at all of us regarding the applicability of computers to A/E firms and how we should go about shopping for systems it may be reassuring to know that this will not be another one of those "how-to" articles. Instead, we want to share with you what our firm is doing with microcomputers, what we've learned from our experiences and what plans we're developing for expanding their use in our office.

OUR HARDWARE SYSTEM

We purchased our microcomputers in the Spring of 1981 after spending about one year of research into available systems and analyzing the applicability of them to our total operations. As we began shopping for computer hardware we soon discovered that it was extremely important to first define precisely what we wanted the computer to do, then determine the availability of software programs that met this performance criteria and finally, match up hardware with these programs (since most software only operates with specific hardware). As it turned out this strategy saved our staff countless hours from having to either modify existing programs or develop large numbers of new programs to meet our specific needs.

The system that we purchased includes two Radio Shack TRS-80 III, 48K microprocessors, one daisy wheel printer, one dot matrix printer and such peripherals as a remote disc drive unit and a modum (which is used for telecommunications interface with other remote off-site terminal units).

Both of our terminals have dual drives for over 350K (floppy disk) memory storage (which has been quite adequate for most all of the programs we employ). The daisy wheel printer gives us electronic typewriter-quality printing capability with a variety of type faces available. This printer is used for word processing functions. The less expensive dot matrix printer is used for our engineering work and other in-house documents, and we have found the readability of this printer to be quite acceptable.

USAGE EXPANDS RAPIDLY

Initially we used the system for three basic tasks which included payroll, general accounting and engineering calculations, but in the ensuing 1½ years we have expanded our applications at a rapid rate. We are now online with 21 major programs that support all areas of our operation including:

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IMPROVED SPECIFICATIONS PRODUCTION

The most significant contribution that computerization has made to our word processing procedures thus far is with specifications. We have seen significant improvement in both the efficiency and accuracy of them since entering our master specification into the computer using a modified version of the MasterSpec II program (PSAE). Procedurally, when we want to use the program we call the preformatted spec up on the terminal, screen edit the copy, and produce an error-free hardprint copy that is duplicated and collated by a commercial copy center.

Because development of our specifications has become so efficient we are now producing complete technical specifications.
tions at the schematic and design development phases in lieu of the much less complete outline specs that we once used. The big benefit of this is that the accuracy of our early cost estimates has improved because our estimators now have a much clearer picture of the quality level we are striving for with systems and materials.

**BETTER MANAGEMENT OF PROJECT PROFIT/LOSS AND SCHEDULING**

By entering our weekly time card information into computers we have the base information necessary for ongoing project management of all our active projects. Through this program we monitor on a weekly basis the current status of our manhour budgets, profit/loss trends and project schedules (see Figure 1).

This program (one of a number which we have written) has proven to be an extremely useful management tool in flagging down potential problems with our budgets and schedules and its information gives us the lead-time necessary to make the appropriate management decisions required to avoid most of them.

**TECHNICAL APPLICATIONS**

Computers have greatly enhanced our ability to analyze alternative energy systems and evaluate their applicability and feasibility throughout the design process.

Using the Carrier E20-II programs during preliminary design we develop energy profiles on alternative design concepts which have as input variables building location, configuration and orientation, internal loads, construction types and energy systems. From this input data we profile information on projected heating and cooling (block or zone loads), ventilation requirements, operating costs and a life-cycle cost analysis on alternative energy systems (Figure 2).

Most significantly, we have found this program to be a valuable tool in providing us (and our clients) with much more detailed base information during the early design stages from which we are making critical planning decisions.

**LESSONS LEARNED**

Needless to say, this has been an eye-opening experience for most of our staff and we’ve learned a lot from it. For example, we now know that we should not have attempted to get on-line with so many programs as fast as we did. We now see that in doing so we were asking the equipment to do things for us before we fully understood what its capabilities and limitations were.

We failed to keep up with producing back-up discs to store programmed information. In several instances, through mechanical or operating breakdown, we lost several stored programs which required substantial time to recreate.

For those programs written in-house we experienced some staff frustration during the debugging phase. In retrospect, it would have been much better for us to have gone through a thorough de-bugging before attempting ANY application of those programs.

(Continued on Page 11)
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We have found that two terminals are not adequate for us. With one terminal used 100% of the time for accounting and word processing and the other unit for management and technical programs it has been difficult to schedule computer time for everyone. Also, when one computer is "down" the situation compounds itself. It's becoming clear that we need to purchase at least two more terminals.

Static electricity build-up had been somewhat of a problem for us but by installing an antistatic floor mat at the work station the problem has been eliminated.

Equipment down-time has become more frustrating to us as we become increasingly reliant on our system. Additional terminals will mitigate this to some degree by giving us back-up equipment that we now do not have but it nevertheless underscores the need for us to retain the skills necessary to do these operations manually.

FUTURE PLANS

There are a number of additional programs that we want to add to our current library which expand into other areas such as space planning, cost estimating, fee analysis and additional engineering calculations. We also want to broaden the usage of some of our current program capabilities into other "form applications" such as contractor change orders, certificates of payment, etc.

In terms of equipment changes we plan to add more terminals to the system with the objective of providing all project managers with their own units and assigning one unit solely to word processing. As the equipment develops, we may also be interested in upgrading the RAM capacity of our existing terminals from 48K to either 64K or 128K.

Although it may be somewhat in the future for us we are now beginning to prepare ourselves for the eventuality of computer-aided drafting (CAD). We are now fully employed into systems drafting and are beginning to organize our standard detail file (two prerequisites of a CAD operation). Although microcomputers have some plotting/printing capabilities, when the time comes to purchase our equipment we will probably be looking into larger mini-processor units.

In summary, our experiences with microcomputers have been quite positive. They have significantly enhanced capabilities that we had before going on-line with them; they've enabled us to readily expand our services into new areas and, perhaps most importantly, have allowed us to become more effective managers of our practice.

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wisconsin architect/september, 1982

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The following is a recent article prepared for the Component President's Newsletter outlining the AIA's recent efforts to get programs off the ground in computer applications.

Future Views . . .

A profile of five 1981 design firms interviewed in 1984, came across the following facts.

Firm A was just starting in 1981. The principals were 33 years old and were your former project managers. They evaluated their needs and purchased word-processing software for their microcomputer with master specification capabilities also.

Firm B was comprised of three partners and five staffers. Their manual financial files are now on a microcomputer. They do developer feasibility studies, energy analysis and marketing.

Firm C was a small professional corporation of 25 people. They handle their billings, all finances, estimating, all construction records and engineering calculations as well as the services offered by Firm A and Firm B.

Firm D was a large professional corporation. They handle all the above functions along with computer graphics. They offer topographic mapping services to other firms via a service bureau arrangement and have created numerous joint ventures via their computer service networks.

Firm E was a moderate-size firm. They were nine people in a moderately well managed firm. Their firm died in 1982. They were not able to compete effectively.

At Present . . .

On November 16 and 17, 1981, approximately 25 people will be trying to prevent the demise of Firm E by setting the Institute's programs and direction in computers for the next 1 to 5 years.

The concept of buying a computer often seems to fall into one of two areas: either a status symbol or a panacea for all that ails a firm. It is neither, but it is a basic tool, something akin to a telephone, that allows for monitoring of the firm's vital functions on a basic scale as well as allowing for a potentially higher level of productivity.

However, while the Institute has made substantial progress with master specifications on computer software and computer-based financial management services (as well as too early efforts in computer aided drafting and design), the Institute now needs to catch up with the marketplace and the new needs of the membership.

In the last eighteen months, the computer market has changed greatly. Entrepreneurs are providing valuable lists of software vendors as well as exchange systems. The costs of computer graphics systems have been, in some areas, halved. While construction management and design-build may have been the new "cutting edges" of practice five years ago, the new firm of the 1980s may offer software design services for other architects rather than construction administration.

But as in any Institute effort, we must not only recognize the advanced firm but take their experiences and make that knowledge available to the small firm. So on November 16 and 17, the Institute will be brainstorming with representatives of a diverse group of small, medium and large firms who provide such disparate services as:

- computer generated space allocation
- energy analysis software
- word processing
- cost accounting
- financial management
- developer projections of financial feasibility
- codes and standards review

The group of attendees was chosen so that all would be resources people as well as contributors to the discussion.

We hope to find new areas where the Institute can both help the profession and use the 36,000-plus membership in an effort to develop new programs. The programs will pass over areas where a need is filled by others already in the market and will not duplicate efforts of others. The Institute chooses to emphasize the unique needs of architects and to develop ideas, some of which may be finished in a year, some of which may take five years; some that may deal with software development, some that may move towards making the Institute directly accessible to the membership via microcomputers and some that may involve the development of large data banks.

The critical question to be answered is "What to do first?" Once the order and direction of development is defined, the Institute will then continue to provide the programs and practice
aids for the 1980s, much as it has with publications and conferences on management subjects in the 1970s.

What will those programs be? That won't be clear until after the roundtable meeting. But conceivably the future practitioner could use an in-house microcomputer to generate geographic leads for marketing. When a client is found, the architect could use a national time data bank to assist in the development of cost based compensation by comparing estimated costs against national trends. When the fees are agreed upon, the architect could access the AIA documents base, select specific pertinent documents, modify them appropriately and have them printed out directly in his or her own office. After developing a prototypical design on computer, the design will automatically calculate from symbols and lines, quantities of materials and develop a cost for construction from a national data base maintained by a national estimating firm. Energy analysis will be calculated simultaneously to keep within prescribed guidelines. All specifications will be generated from microcomputerized Masterspec. Project monitoring for both CPM and in-house design completion is maintained in-house as are cash flow considerations. And the most amazing thing . . .

This is all technically available right now.

Many considerations must be made before an architect makes a decision to use computer graphics (CADD) to aid him in supplying his services. Among these considerations should be included:

- For what is computer graphics going to be used?
- What system(s) should be used?
- Economics including capital requirements.
- The rapidly changing technology of today's systems.
- Workload growth and contraction flexibility.
- The level of technical competence and expertise required to effectively utilize computer graphics.
- Your competition.

Applications

Computer graphics is currently being used at many firms to perform nearly every architectural design and drafting task required. Applications such as space planning, floor plan layout, facilities management, bills-of-material, job scheduling, working drawings, section details, elevations, mechanical, electrical, engineering and others are all natural applications for computer graphics. In fact, many of these applications are so related to each other that often, performing one discipline with computer graphics provides the architect with other disciplines nearly automatically.

System Purchase Psychology

Computer graphics is vogue with many firms automatically thinking that “buying” a system is “the thing to do”. This psychology should be immediately dispelled for reasons that will be discussed later. Whether your requirements allow you to use an inexpensive system (starting at $30,000) or require you to...
need a system with the numerous benefits and capabilities of a more advanced system (ranging up in price from $150,000) will determine the extent of your investigation into various systems. If your firm performs activities in multiple disciplines with numerous users, your needs will be more extensive than if you are highly specialized. Dozens of systems and hundreds of anxious, aggressive, optimistic sales people await your hint that you are ready to evaluate systems.

Economics

Unfortunately, a computer graphic system's purchase price is only a down payment on its operations and making a decision to use one can only be made after an extensive economic evaluation. You must consider the following economic parameters in your analysis or you will only be fooling yourself with respect to the real benefits of computer graphics:

- purchase price
- maintenance cost per month
- system upgrades (including normal support as well as for future technological improvements)
- system expertise (don't believe that you will run the system in your spare time)
- utilities (these may be more expensive than you think)
- environment (you must provide adequate, environmentally sound space)
- what type of work and how much do you have (Most well run, economically sound systems are operated 16-24 hours per day)
- learning curve and procedural changes. You are an architect and will make your livelihood best by providing architectural services. You will not help yourself or your firm if you are spending much of your time administering to a computer graphics system.
- the cost of money.

Rapidly Changing Technology

Fortunately — or unfortunately — computer graphics technology is changing so rapidly that most systems purchased or agreed to today will be obsolete by the time they are fully implemented. Although this problem can be rationalized by the fact that even though obsolete the old system will still be capable of doing what it was intended to do, if your competition purchases the more technologically advanced system for less cost, you will be hard pressed to effectively compete. On the other hand, if you delay entry into the computer graphics technology, you will be out of the competition today. We are experiencing a true "catch 22" with today's technological advances.

Workload

The architectural field is notably a "feast or famine" industry. Although a computer graphics system will allow you to address the feast times much more adequately, such systems tend to have an insatiable appetite and propensity to produce negative cash flow during the famines. A partial solution to this problem may revolve around some type of sharing environment between firms. Certainly the flexibility to expand and contract rapidly is more important in the architectural arena than in most others.

Bits, Bytes and Zaps

Contrary to many optimistic reports about "user friendliness", computer graphics systems are highly complex amalgamations of hardware and software, are not intelligent and do not run by themselves. Although you may learn how to "push the buttons" and create rudimentary designs in only a few days, effectively implementing a capable computer graphics system will take a considerable length of time. Not only does the system manager require an in-depth knowledge of architecture and how it must be applied for the architect's clients, he must be a computer person, production manager and general problem solver in order to effectively operate a system — particularly in a multi-discipline, multi-user environment.

Competition

Not much can be said about remaining competitive except that in the past six months more predictions than ever before have been made that firms not utilizing computer graphics soon will cease to exist within the next five years. Computer graphics is a technology that is available TODAY! It is working for architects TODAY! It is not a technology which can be ignored or one that won't be available for several years. It is alive and well and working for many architectural firms TODAY!

Wayne L. Staats is president and founder of Advanced Computer Graphics, Inc., of Milwaukee, the nation's first and largest service company providing exclusive computer graphics services. ACGI provides data conversion and several forms of time sharing to aid firms in launching into and continuing operations in the computer graphics discipline.
Cameras are tools for architects just as much as are parallel bars and triangles. But the selection of these drawings aids is relatively easy — once you've looked at Post, K&E, and Dietzgen, there isn't much left. The world of cameras is quite another matter. A plethora of makes and models faces the architect buying a 35mm SLR (single-lens reflex) camera, which is likely to be the mainstay of his or her photographic work. Glossy advertising and high-pressure camera sales personnel, as well as a whole lot of brand mythology, confuse the matter more. If you strip away the hype and hoopla, however, you can find out quickly just what cameras and lenses make real sense for the professional architect to use in his or her practice.

The first thing to understand is that taking pictures of buildings is not the same exercise as taking snapshots of the spouse and kids on a Sunday outing. While the same equipment you use for serious architectural photography could do well in capturing family adventures, the reverse is not true. Why so? It's because buildings — most of the time — are regular, geometric forms with lots of parallel lines and right angles. Keeping those parallel lines parallel (especially the vertical ones) is the job of specialized architectural photographic equipment — equipment that is available in greater quantity and variety today than ever before.

The ill-equipped architect photographing a recent masterpiece will invariably produce some photographs marred by "Keystoning", or convergence of vertical lines to make the building appear to be collapsing backward. In real life, the mind corrects for this effect when the eye sees it. In the two-dimensional medium of photographic slides and prints, the effect is apparent and discomfiting. (Moreover, prints that have been corrected to have both horizontal and vertical lines parallel have tangible and practical benefits beyond the aesthetic — through scalable, rectified photography to produce measured drawings.)
The convergence of horizontal and vertical lines can be prevented in only one way: the film must be held parallel to the plane of the facade when an exposure is made. If only vertical lines are to be kept parallel on the film when it is exposed, then the film must be vertical — the camera tipping neither forward nor backward. This procedure is called perspective control, or "PC" in the jargon of the trade.

The professional architectural photographer, such as Jack Hedrich, who addressed the Southwest Chapter of the Wisconsin Society of Architects last February, avoids the undesirable effects of convergence by using a view camera. This instrument has a rising and falling front lens holder, or standard, that permits the photographer to elevate the lens while keeping the film in a fixed position. The principle behind this is simple. If the film must be kept vertical to avoid distortion, then, in the usual situation, the camera cannot be tipped upward to bring in the top of a building. If the camera cannot be tipped, but the lens could slide upward instead, then the top of the building could be included in a view without distortion. Thus, the rising front standard of a view camera is critical to the architectural photographer, and allows him or her to execute this neat trick to conform to the rules of geometry.

The average architect, however, does not use a view camera, which generally exposes large, sheet film of 4-by-5 inches or greater dimensions. Ever since the 1950s, when the photography world underwent a revolution in 35mm photographic equipment, the architect has generally used a 35mm SLR for record photography. And this makes perfect sense. The 35mm SLR shows the viewer just what the lens sees. If the lens is changed, the view changes with it. Architectural photography tends to make extensive use of wide-angle lenses, because buildings are rather large objects. When the architect-photographer puts a wide-angle lens on an SLR, then, he or she sees precisely the image that will wind up on the film. Indeed, when I am asked by a photographer of buildings what sort of beginning outfit to buy, I will advise starting with an SLR body and a 35mm wide-angle lens, and to forget about purchasing so-called "normal" 50mm lenses until later, if at all.

But the 35mm SLR camera does not have the rising front standard of a view camera to allow the photographer to correct distortion. Because of this, and the small size of its film image, for many years professional photographers shunned the 35mm format as being inappropriate for the proper photography of buildings. Indeed, in the literature before 1960, the "miniature" camera, as a 35mm model was then called, was heaped with derision as being little more than an amateur's toy. This is no longer true, as those who attended Jack Hedrich's lecture heard from an experienced pro.

Two reasons account for this. First, the quality of lenses and films in the 35mm format has grown impressively since 1950. Today, major magazines that formerly insisted on 4x5 images routinely accept 35mm slides. Second, in 1961 a Japanese camera and lens manufacturer introduced a new lens that could rise on the camera body, just like the rising front standard of a view camera. It was Nikon's 35mm f/3.5 PC-Nikkor (replaced in 1968 by an updated, f/2.8 model). While Nikon got the jump on its competition with this lens — it was six years before another PC lens hit the market — today there are a variety of PC, or shift, lenses available for architects to acquire and use.
An architect who has already invested heavily in a 35mm SLR system, but who does not have a PC lens, can consult the list below to see if his or her system is on it. If it isn’t, it may be time to consider trading in for a new system that is here.

### Manufacturers
- Canon
- Minolta
- Nikon
- Olympus
- Asahi Pentax
- Schneider
- Carl Zeiss

### Lenses
- 35mm f/2.8 Tilt-and-Shift
- 35mm f/2.8 Shift-Rokkor-X
- 35mm f/2.8 PC-Nikkor
- 28mm f/3.5 PC-Nikkor
- 35mm f/2.8 Zuiko-Shift
- 28mm f/3.5 Pentax-Shift
- 35mm f/4.0 PA-Curtagon
- 35mm f/2.8 PC-Distagon

### Cameras It Fits
- Canon SLRs
- Minolta X and SRT SLRs
- Nikon, Nikkormat SLRs
- Olympus OM-1, OM-2
- Pentax K-mount SLRs
- Most SLRs (universal mount)
- Yashica FR, FX; Contax RTS, 137, 139

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As one can see from this list, there is only one manufacturer, Nikon, that makes PC lenses in both 28mm and 35mm versions. Thus, many serious photographers who are architects use the Nikon system. However, one can also purchase a special adapter to mount the 28mm PC-lens on a Canon SLR body, giving the Canon owner the ability to use both 35mm and 28mm PC lenses. The least-expensive system to the new buyer to consider is that of Olympus, opting for the OM-1 body and Zuiko-Shift lens. The Pentax 28mm shift lens is unique in having three built-in filters. The Schneider PA-Curtagon fits most SLRs through its own universal mounting system, and also fits some motion-picture cameras. All these lenses are either manual or preset in operation except Minolta’s, which is a semiautomatic lens.

As lenses for 35mm SLRs go, PC lenses are relatively expensive. To buy the least-expensive of them new, one can anticipate spending about $300. On the other hand, such lenses are crucial for the professional architect and are usable in his or her work. Therefore, they can be depreciated as business equipment.

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In addition to acquiring and using such a lens, the professional architect should use a 35mm SLR that has interchangeable viewfinder screens, and for which is available a tic-tac-toe-like grid screen. This limits substantially the range of desirable cameras in which an architect should invest. The purpose of such screens is to aid the photographer in lining up the vertical and horizontal lines of buildings. Without a grid screen, a photographer trying to use a PC lens is seriously handicapped, for he or she is always guessing. Therefore, when talking with camera sales personnel about a particular camera, ask if the particular model accepts user-interchangeable viewfinder screens, and if a grid screen is available for it. If the answer is no, ask to see another model of camera that meets this requirement.

Here is a list of cameras presently available that accept user-interchangeable screens, and (in parentheses) the designation of the grid screen for the cameras: Canon F-1 and AE-1 Program (type D), Minolta XK (type L), Nikon F, F2, F3, and FE (type E), Olympus OM-1 and OM-2 (type 1-10), Pentax LX and MX (type SG), Contax RTS (Sectioned Matte), and Leica R4 Mot.

An architect reluctant to spend the sum necessary to acquire the proper camera, screen, and shift lens(es) first should investigate discount camera stores, both locally and elsewhere, for the best prices. Toll-free phone numbers and credit cards make ordering from big stores in New York, Chicago, and other major cities easy and fast, so there is no need to pay more than the prices these places advertise in the back of monthly photo magazines like Modern Photography and Popular Photography. In Wisconsin cities, camera stores have reduced their prices in recent years to compete more effectively with out-of-state markets, so local stores should be checked.

If new equipment is just too expensive, one can investigate the used cameras market. Local newspapers sometimes have classified ads, but usually the prices being asked here are too high. The best national source of used equipment I know of is Shutterbug Ads (Box F, Titusville, Florida 32780). This is a monthly listing, of over 100 pages, that is available for subscription at $10.00 per year. There are listings of many cameras suitable for architects in every issue of SA, and there are always listings of various PC, or shift, lenses as well. Prices vary a great deal from ad to ad, however, so one should read each issue carefully. Consider only equipment rated at least “excellent” or “mint”.

Architects who prefer to work in the medium format, with 2½-inch or size 120 film, have good news. In 1980, Pentax introduced a PC lens for its Pentax 6X7 (or 2½-inch-by-2½-inch) camera, bringing to this format for the first time a capability identical to that introduced into the 35mm format by Nikon in 1961. The 75mm f/4.5 Pentax-Shift lens, fitted to a 6x7 equipped with a factory-installed grid screen, can produce photographic results of truly impressive quality.

While the results possible with a PC-lens-equipped 35mm SLR are not of the quality of those made with a 4x5 view camera, equipment and film manufacturers have made tremendous strides during the past decade to close the quality gap. Even the pros have started using the 35mm SLR seriously in their work for client-architects, and publications have started accepting 35mm color slides. Seven different manufacturers in Germany and Japan now make equipment specifically designed for architectural photography in the 35mm format. Architects can capitalize on this new equipment to improve the quality of their brochures, presentations to potential clients, and public-service programs. And they can have some fun while they’re doing it.

O. Helen C. White Hall, on the UW-Madison campus, was photographed here with a 28mm PC-Nikkor lens. Without a perspective-controlling lens, this photograph would not have been possible.

Author and photographer Jeff Dean is director of the Historic Preservation Division, State Historical Society of Wisconsin. He wrote and illustrated the new book Architectural Photography: Techniques for Architects, Preservationists, Historians, Photographers, and Urban Planners, published by the American Association for State and Local History, Nashville, Tennessee. Copies of this book can be ordered through the WSA Office.
ON THE BOARDS

ARCHITECTS:
Torke/Wirth/Pujara Ltd.
Architects/Engineers

PROJECT:
Executive Center VI
Office Building
Brookfield, Wisconsin

Inland Development
Corporation

Executive Center VI is a four story, 100,000 sq. ft. office building to be constructed on West Bluemound Road in Brookfield on the site now occupied by the Bluemound Drive-In Theater. The structural system consists of precast concrete columns and beams supporting double tee floor and roof plank members. The building exterior is composed of reflective glass and exposed aggregate spandrels. A feature of the interior is a four story atrium with tenant lounge/snack bar and conference facilities.

ARCHITECTS:
Sample and Potter, Architects

PROJECT:
State Historical Society
Museum on the Square
Madison, WI

An exciting new renovation on Madison's Capital Square will provide a new facility for State Historical Society Museum exhibits, workshops, and education program activities.

The purchase of the former Wolff, Kubly, and Hirsig building on the Capital Square in 1980 was the first step in the Historical Society's ten year plan.

The exterior image of the building will change to one appropriate to a historical museum. A new ceramic tile facing is planned to provide a durable and attractive exterior.

The lower level of the building will be used for shops, offices and storage. Temporary or changing exhibits will be located on the main floor, with more permanent collection displays located on the upper floors.

ARCHITECTS:
BHS Architects, Inc.

PROJECT:
Campus Consolidation
for University School Milwaukee
River Hills, Wisconsin

As the result of a design competition, BHS Architects, Inc., has been selected to be the architects for the relocation of the Upper School to the University School's 108 acre suburban site. The project includes converting an existing, unused dormitory building into administrative offices, library, and music and art rooms. New wings will be constructed for athletics, theater, and classrooms. Extensive sitework to accommodate additional fields, tennis courts, and parking is also included.

The new facades, while being compatible with the existing buildings on the Campus, will utilize more contemporary materials and will incorporate passive solar, as well as other energy efficient features.

ARCHITECTS:
Flad & Associates of Madison, Inc.

PROJECT:
Composite Medical Facility
Minot Air Force Base
Minot, North Dakota

Minot Air Force Base is located approximately 13 miles north of Minot, North Dakota. The project is intended to provide complete health care services for the Minot Air Force Base community. The composite medical facility combines the entire health treatment capabilities for the given military community. It includes all inpatient, outpatient, diagnostic, and dental services and support functions.

Currently in the construction document phase, the facility will cover 166,296 square feet. It will be a three-story, plus a mechanical penthouse, concrete frame structure. Major areas of the first floor are approximately two-thirds earth bermed for energy conservation. The building is oriented so that the adverse effects of the winter climate are minimized. The short elevation faces the northwest where the strong winds come from. The temperature varies from 102°F in the summer to -30°F in the winter. Heating degree days are 9,800. Window areas are minimized and interior visual relief is focused on an open three-story, skylighted central court. The project will be heated and air conditioned through its own central plant services. Construction is being handled by the United States Army Corps of Engineers - Omaha District.
PROMOTING THE PROFESSION?

This picture of Dick Knothe, AIA, appeared in a well-respected Wisconsin magazine. Why is he standing in water? Only he and the photographer know. Weird.

If you have a candid photograph of yourself, a partner, friend or enemy, submit it for publication to the WISCONSIN ARCHITECT.

DEFINITION OF AN ARCHITECT

"A fascinatingly frustrated creative long hair, passing as an artistic and an aesthetic virtuoso, yet possessing an exhaustingly inaccurate amount of technical know-how, while posing as a practical building expert on the basis of being able to develop, in an impossibly short interval of time, and after innumerable changes, an infinite series of incomprehensible answers calculated with the usual mathematical and computer inaccuracy, from extremely vague assumptions, based on debatably documented data, taken from ill-informed apprehensions and painstakingly produced with instruments of problematical precision by a pleasant peasant of dubious reliability, of indeterminate integrity, but of course with monumental mentality, for the avowed purpose of beautifying, amazing and confounding a defenseless and unsuspecting citizenry who were unfortunate enough to have asked for the obvious conclusions in the wrong fashion in the first place."

SIMONITSCH APPOINTED

John H. Simonitsch, AIA, of Flad & Associates, Inc., Milwaukee, has been appointed by University of Wisconsin-Milwaukee Chancellor Frank E. Horton to participate in the committee that will undertake the task of finding a successor to UW-M School of Architecture and Urban Planning, Tony Catanese. The WSA is honored to have John appointed to this committee. The WISCONSIN ARCHITECT had previously reported that Richard Blake, FAIA, had been appointed to this committee. The WISCONSIN ARCHITECT regrets this error.

STEAK DINNER

Glenn Johnson, AIA, of Milwaukee has won the grand prize in the WISCONSIN ARCHITECT'S first annual competition to obtain leads for new advertisers. Johnson submitted copies of 100 cards from construction industry supplier representatives who had visited his office during the past several months. The second annual competition is already underway . . . keep those cards and letters rolling in. P.S. Glenn, what construction industry supplier does Suzie's Sauna represent?

PROFESSIONAL EXAM JOINT VENTURE

Studying for the architects Professional Exam to be given in December? Would you like to joint venture in the cost of course materials to assist you in the studying?

The WSA is willing to assist members in purchasing and coordinating the use of materials which have been prepared to assist candidates in studying for the Professional Exam.
Now there's a CADD system to keep up with you.

A CEADS-CADD Professional Turnkey System will make you more productive than you've ever been before. Developed by Holguin & Associates and offered by H-P Plus, CEADS-CADD leads the computer aided Design and Drafting industry in five major categories: 1. Cost/Performance; 2. Return on Investment; 3. Installation/Training Cycle; 4. Production Path; 5. Network of Service and Support.

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Depending on the number of WSA members interested, the WSA might purchase these course materials and make them available to members as part of the WSA library.

If you are interested in pursuing this concept, contact Eric or Karen at the WSA office.

FILM SERIES — MILWAUKEE

The University of Wisconsin-Milwaukee School of Architecture and Urban Planning Alumni Association is presenting a film series. The films are shown at Englemann Hall Auditorium on the UW-M Campus in Milwaukee... 2033 East Hartford Avenue. All films start at 7:30 p.m. and a donation of $1.50 per person is requested.

On October 7, 1982 the film will be "LEWIS MUMFORD ON 'THE CITY'"

Two films will be shown. The first will be "The City" (45 min.) which is a famous film made to be exhibited at the 1939 World's Fair. A classic which was a hit of the Fair and stands as one of the major landmarks of the American documentary film. Music by Aaron Copeland and text by Lewis Mumford. The second film is "City Life" (30 min.) a 1972 release with Lewis Mumford updating his 1939 thoughts on the city.

For further information contact Patrick J. Meehan, AIA at (414) 547-6721 ext. 248 or (414) 327-2842.

MEMBERSHIP ACTIONS

ESKENAZI, PAUL B., was approved for Associate Membership in the Northwest Wisconsin Chapter.

ZINGSHEIM, PATRICIA, was approved for Associate Membership in the Southwest Wisconsin Chapter.

ROTHE, BRUCE A., was approved for AIA Membership in the Southwest Wisconsin Chapter.

CLAUSSEN, CHERIE K., was approved for AIA Membership in the Southeast Wisconsin Chapter.

PAULUS, LEE L., was approved for Prof. Affiliate Membership in the Southeast Wisconsin Chapter.

ALEXANDER, STEPHEN, was approved for AIA Membership in the Southeast Wisconsin Chapter.

WRIGHT, RODNEY, was approved for Unassigned Membership in the Northwest Wisconsin Chapter.

JEFFERS, ROBERT, was approved for Student Membership in the Southeast Wisconsin Chapter.

SCHOOFs, STEVEN T., was approved for AIA Membership in the Northeast Wisconsin Chapter.

RENNER, PETER, was approved for AIA Membership in the Southeast Wisconsin Chapter.

MARQUARDT, GEORGE M., was approved for Prof. Affiliate Membership in the Southeast Wisconsin Chapter.
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Spancrete, Inc.
641 N. Hickory Farm Lane
Appleton, Wisconsin 54911
Phone 414/734-5641

Spancrete of Illinois, Inc.
4012 Route 14
Crystal Lake, Illinois 60014
Phone 815/459-5580
DILHR is currently considering possible changes to its Building Code format. If you've got any ideas on format, contact Eric at the WSA office. This is not your chance to gripe about content ... but it is your chance to provide input as to the way in which the code is laid out.

The Safety and Buildings Division of the State Department of Industry, Labor and Human Relations (DILHR) reviews building plans for commercial buildings constructed in the state. By state statute, construction on the building cannot begin until state approval is granted.

The quantity of plans submitted to the state varies, seasonally, with the construction seasons, resulting in comparably large numbers of plans in early spring and fall, and reduced numbers in mid-summer and winter. As the state’s plan examiners must have extensive training and/or experience to review plans, DILHR cannot feasibly adjust staffing, seasonally, to handle the workload. Therefore, in the past, submitters of plans had to wait as much as 4 weeks, during the construction season, to have plans reviewed.

DILHR recognized that this delay sometimes causes a significant hardship on designers, contractors and owners who are working under time constraints generated by weather, financing, completion date penalties, etc., and as a result of this concern, developed an administrative procedure whereby the backlog of the Department can be bypassed. This procedure is called Priority Plan Review.

Priority Plan Reviews are conducted by DILHR by appointment and payment of additional fees equal to the plan examination fees (double the plan examination fees). Recognizing that the Priority Review Procedure could increase the backlog time for non-priority plans, the Department has limited the number of examiners conducting Priority Reviews to approximately 25% of the authorized plan examination staff, leaving the remaining 75% to work on non-priority projects. In addition, the fee charged for priority reviews is intended to provide funding for over-time hours by the staff to keep the plan backlog within acceptable limits.

The Priority Review process begins with the plan submitter calling Jim Smith, 608-255-0251, for an appointment. Mr. Smith will schedule an appointment with a plan examiner at the earliest date available which is agreeable to the submitter. The plans are brought in, at the appointed date and time, and the review of the plans is started. In most cases, the approved plans will be available later the same day for pick-up. Complex plans, which cannot be completed in one day, will be available for pick-up when completed, or will be mailed at the submitter’s option.

Mailed plans may be given Priority Review, all submitted plans, documents and forms must be complete and in accordance with Ind 50.12 or Ind 50.13. All required seals and signatures must be provided. It is suggested that submitters keeping Priority Review appointments bring a blank check, as the plan examiner will check the fees and determine the correct amount.

DILHR, of course, does not guarantee that Priority Reviews will result in approved plans, only that the review will be conducted and the appropriate action determined on priority basis. If the plans show major code discrepancies, the action could be non-approval or withholding of approval.

Editors Note: The WSA has a courier service to assist members in the delivery and pick-up of plans submitted for priority plan review. Call the WSA office for more information.
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OCT 26 WISCONSIN ARCHITECT/SEPTEMBER, 1982
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October 23 — 9:00 a.m. - 5:00 p.m.

Information: WSA (1-800-362-3912)
(257-8477 - Madison)
NEW PROGRAM IN TECHNICIAN TRAINING AT MATC

By Stanelty Badzinski, Associate Dean

The faculty and staff at the Milwaukee Area Technical College has been working closely with the AIA Architectural Technology Advisory Committee in the last year on the revision of their Architectural Technology curriculum. That curriculum was accredited by the AIA in 1978 at which time a number of changes were recommended. These changes were very carefully reviewed in the last four years and incorporated into the new curriculum which will be offered for the first time during the fall of 1982.

One of the major changes in the revised curriculum is the increase in drafting courses from 15 credits to 20 credits and the subsequent increase in drafting time from 5 hours per week to 12 to 15 hours per week. This change coupled with a new series of related courses is expected to provide graduates of the program with the skills needed to take the architects design sketches and turn them into complete working drawings.

The curriculum contains 69 credits and requires two years to complete. It will cost the student approximately $400 per semester for tuition, fees, and books. To be eligible for the program, high school graduates must have successfully completed one year of high school algebra and one year of high school geometry.

AIA Members and others who served on the committee are:
- Chairman Murray Kinnich - Architecture 360
- Keith Anderson - Wm. Wenzler and Assoc., Inc.
- Richard Eschner - Kahler, Slater, & Fitzhugh Scott
- David Lehman - Wisconsin State Department of H.U.D.
- Gary Stonebraker - Assoc. Dean, UWM School of Architecture
- Leonard Widen - Johnson & Widen, Inc.
- Walter E. Zoller - W.E. Zoller & Assoc., Ltd.
- Stanley Badzinski - Assoc. Dean, MATC
- J.M. McCarthy - Instructor, MATC
- Albert Melbard - Instructor, MATC
- George Robak - Instructor, MATC
- Hall Smith - Instructor, MATC

This committee reviewed and revised all the course outlines. The success of the program will be judged partly by the expertise that went into developing the program, but the greatest testimony for the program will come from the industry by its acceptance or rejection of the graduates.

Those who are contemplating the need for additional help are urged to consider hiring a graduate of MATC's Architectural Technology Program. These graduates having drawing ability, understand design, know building materials, understand specifications, have knowledge of building systems, and in general, know architectural practices and procedures.

While considering whether to hire graduates, industry representatives might also consider recommending qualified candidates for admission into the program. For the program to be successful, it must have something to offer the student, it must attract students, and graduates must be attractive to the industry.

Refer your requests for graduates to the MATC Placement Department at 278-6244. Refer applicants to the Admissions Department at 278-6467, and for further information on the program or to obtain the approved curriculum, contact the committee members or Stanley Badzinski at (414) 278-6565.

Wisconsin Architect/September, 1982
Three good reasons for selecting Weil-McLain

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EasyDraf² can: Draw construction, center, real or hidden lines at any spacing, at any angle, through any point, and at any specified distance from the X or Y axis... Draw arcs or circles of any radius, wherever wanted... Draw holes of any size...

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So, if your people are still drafting the "old fashioned" way, get all the details on EasyDraf², without obligation.

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Bruning is a registered trademark and EasyDraf² is a trademark.
AIA DOCUMENTS SYNOPSIS

A synopsis of all AIA documents has been created to provide document users with a quick reference for determining the specific applications of each AIA document. This synopsis is also available for use by those unfamiliar with AIA documents in providing them with an overview of the types of agreements covered by AIA documents. To obtain a copy of this Documents Synopses contact Karen or Sandra at the WSA office.

RESEARCH GUIDE ON FAMOUS AMERICAN ARCHITECT FRANK LLOYD WRIGHT TO BE AVAILABLE

A new research guide of major importance on the famous American architect Frank Lloyd Wright entitled Frank Lloyd Wright: A Research Guide to Archival Sources authored by Patrick J. Meehan, AIA, of Milwaukee, has been scheduled to be published by Garland Publishing, Inc. of New York and London in early 1983. The over 500 page illustrated research guide will provide, for the first time, an organized descriptive guide to collections of Frank Lloyd Wright archival materials such as manuscripts, letters, drawings, and various other related materials housed in over fifty institutions. The guide is important since it provides heretofore unknown information on the location and content of each archival collection, accessibility to the various collections, and detailed descriptions of each item contained in the various collections. The book is divided into two distinct parts, the first of which describes the archival collections in general and the second which describes fully each item contained in each collection arranged in chronological order. Copies of the book can be ordered through the WSA office.

You're supposed to look at this sampling of our work.

Badiners, Minneapolis
Dayton's, Minneapolis
Gucci, Las Vegas
The University of Wisconsin-Milwaukee School of Architecture and Urban Planning will be offering a one day course providing an introduction to the legal and administrative aspects of architectural practice. This course has been prepared especially for newly registered architects, graduate students of architecture, and individuals preparing for architectural registration. The course will focus on the more important aspects of architectural practice, highlighting the areas of danger and concern facing the professional at present in matters pertaining to potential liability. Speakers will attempt to provide advice concerning means of achieving a successful, litigation-free practice.

The course has been scheduled for October 28, 1982. For more information, call Professor Robert Greenstreet at UW-M at 414-963-7023.
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