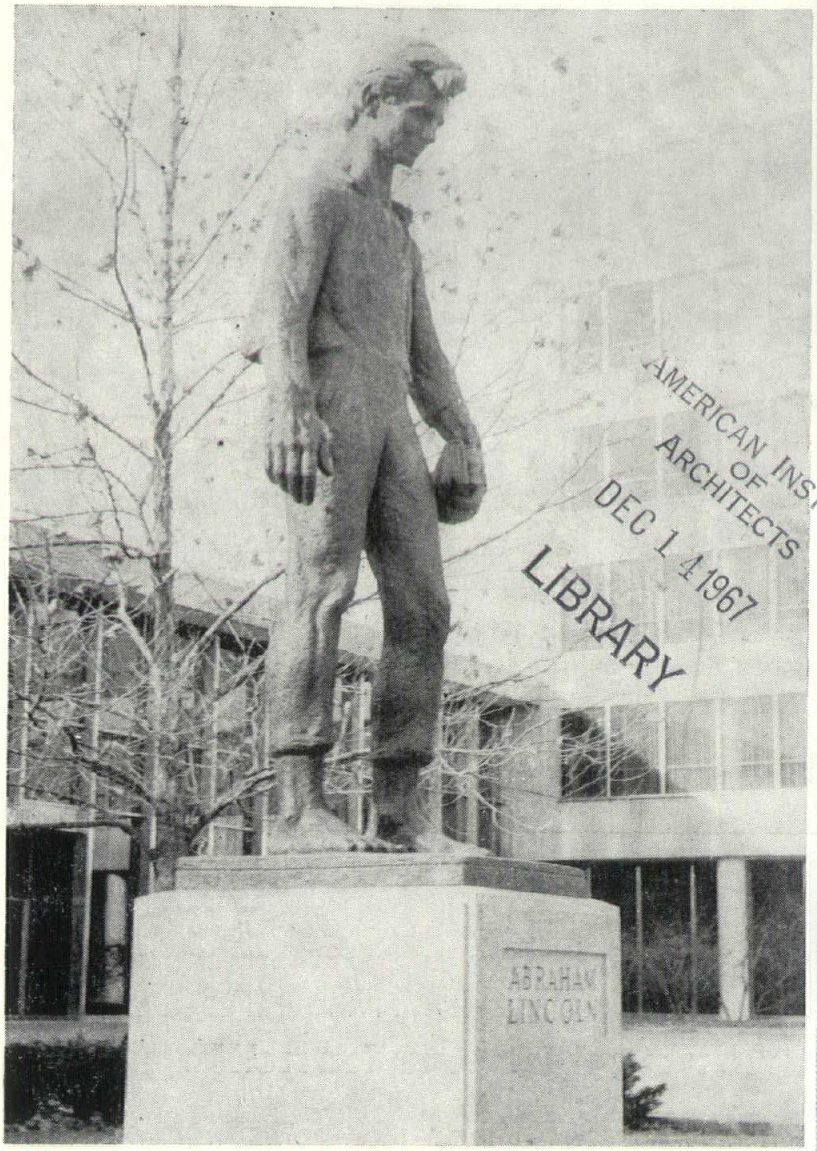
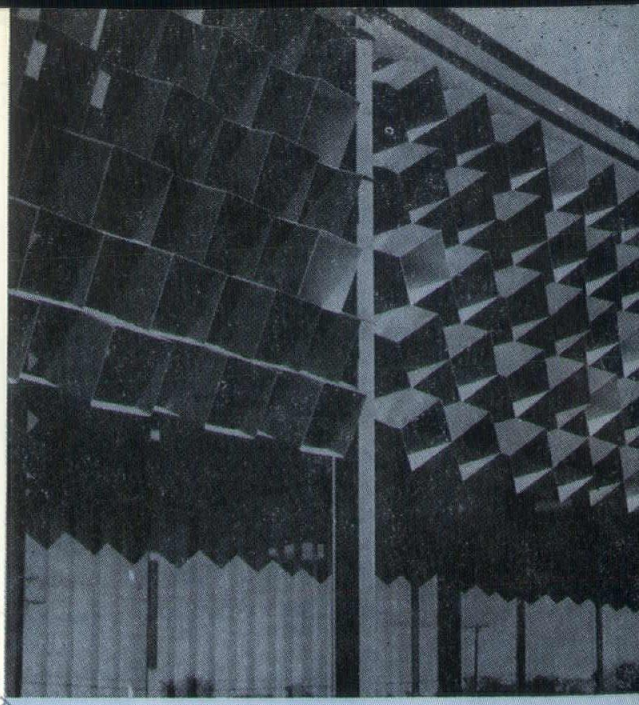
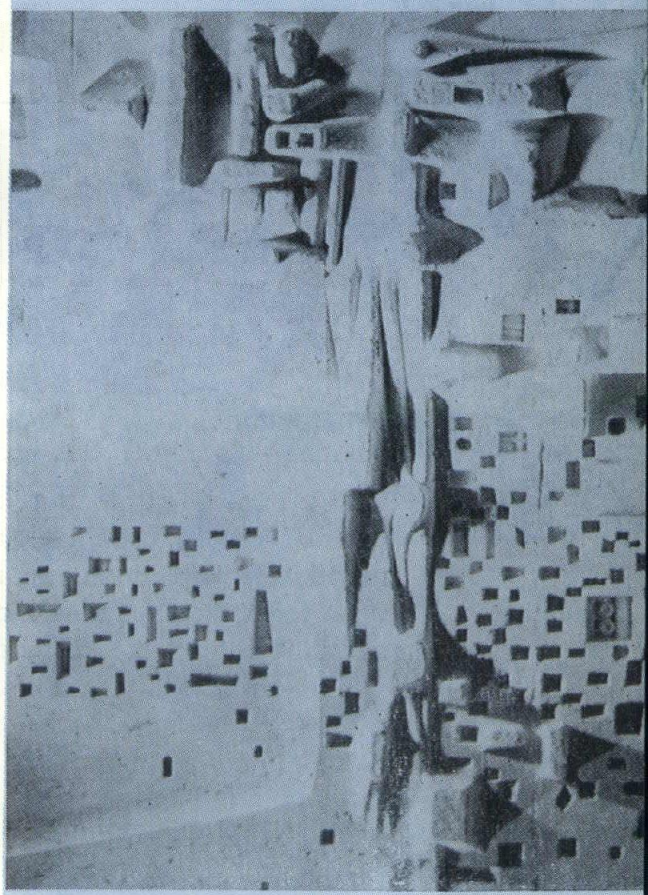
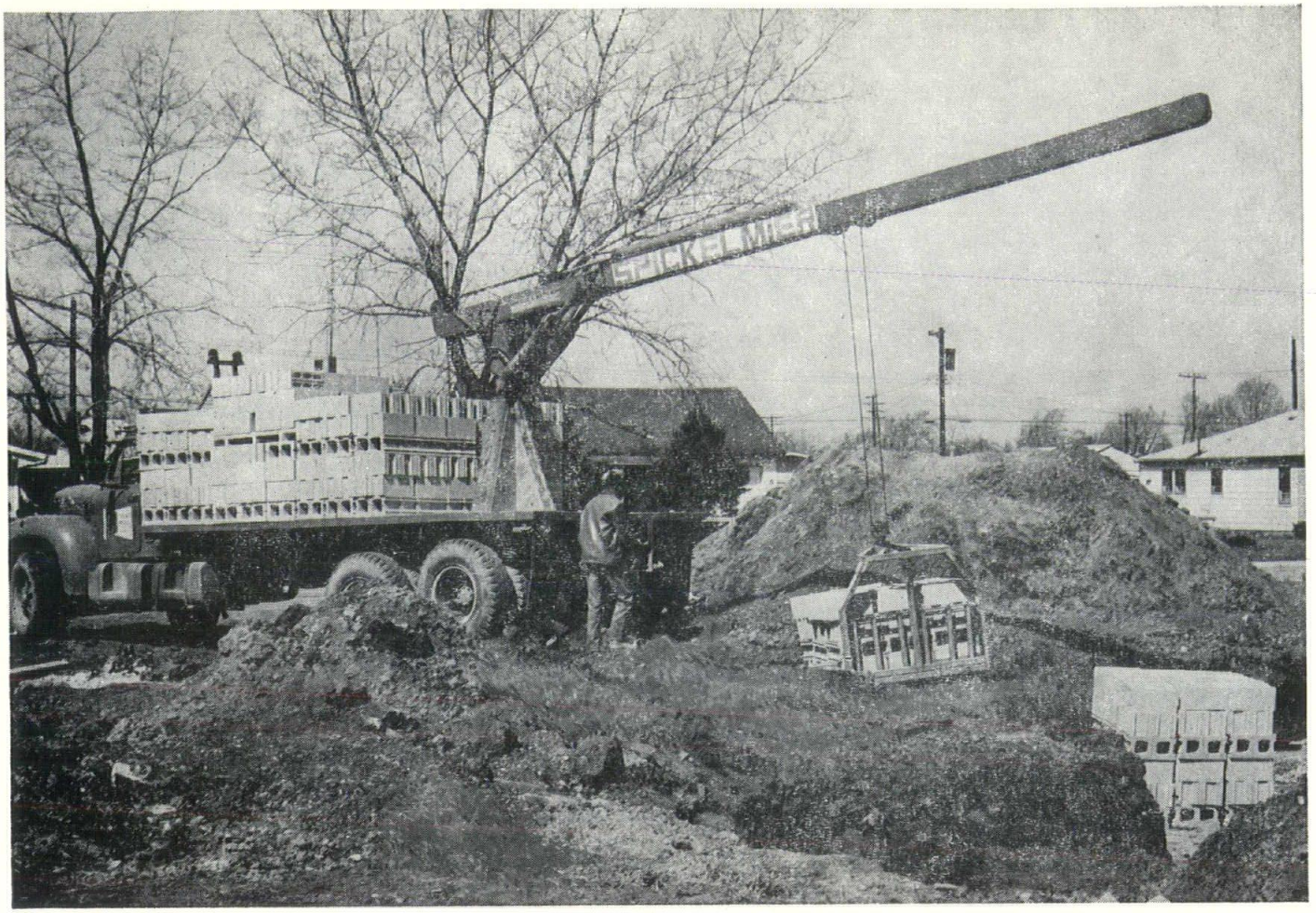
indiana architect

NOVEMBER 1967









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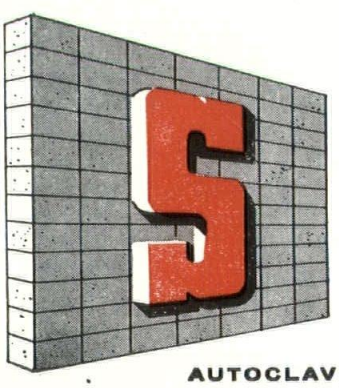

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16. Have you really analyzed in depth *all* the costs of *owning* and *operating* an isolated generation system?

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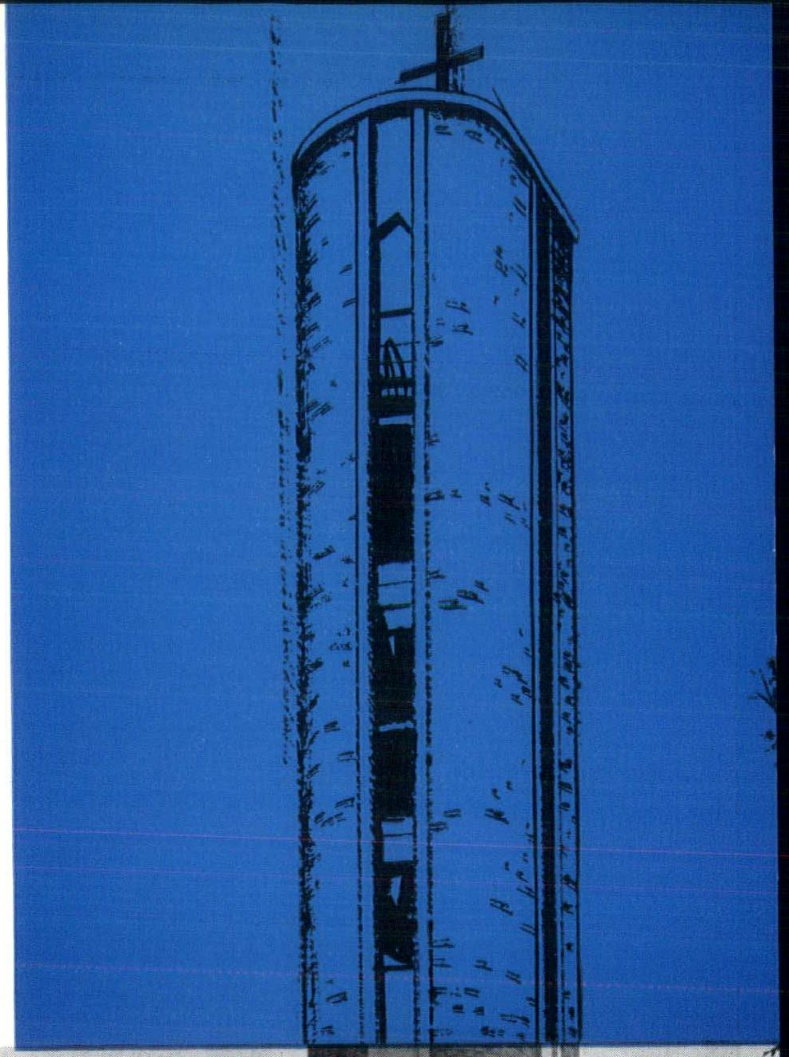

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The INDIANA ARCHITECT is the sole property of the Indiana Society of Architects, a state association of The American Institute of Architects, and is edited and published every other month in Indianapolis, Indiana (editorial-advertising office address 300 East Fall Creek Parkway, N. Drive, Indianapolis, Indiana 46205; phone 925-4484). Current average circulation per issue, 3,200, including all resident registered Indiana architects, school officials, churches and hospitals, libraries, public officials, and members of the construction industry. Detailed information available on request.

Cover Design: Four selections of sculpture announce one of the two special themes for this month's issue. The works and creators are (clockwise from upper right):

Sculptured sun screen, Hunter Savings & Loan, Centerville, Ohio. Sculptor: Arthur Weber, Indianapolis; architect: Woodie Garber & Associates.

Irving Materials building sculptural detail, Greenfield. Sculptor: Robert Youngman, Anderson; architect: Johnson, Ritchhart & Associates.

"Musician," by Robert Youngman.

"Lincoln," State Office Building Plaza, Sculptor: David K. Rubins, Indianapolis.

Ball State Competition

FIRST STAGE of the architectural competition to design the new architecture building at Ball State University has ended; the five winners who will compete in the final stage are:

Fleck, Burkart and Shropshire, Indianapolis; project captain, Robert A. Fisher.

Kellam and Foley, Indianapolis; project architect, George E. Jamison AIA.

Schenkel, Shultz and Huddle, Fort Wayne; project architect, Philip L. Hodge AIA.

Keene/MacRae Associates & Richard Paul Miller, Elkhart; design consultant, Donald E. Sporleder AIA, University of Notre Dame.

Melvin D. Birkey, architect, South Bend.

The finalists were announced by Ball State on November 3rd. Each will receive $2,500.00, and will have until January 12th to complete their perspective drawings and a 1/8 inch scale model. The winner of this second stage (to be announced January 19th) will receive the commission to design the new facility.

Forty submissions were received in the competition, which was limited to resident Indiana architects, representing participation by appproximately 10% of the architects in the state. Jury members were George W. Qualls, Philadelphia, chairman; Joseph Amisano, Atlanta; and Donald Hanson, Chicago. Charles Graves, dean of the University of Kentucky School of Architecture at Lexington, was professional advisor.

The 42,500 square foot building will cost approximately $1,300,000.00 and will house the curriculums of architecture, landscape architecture and urban planning. Completion date is scheduled for the fall of 1970, at which time the full five-year architectural program will be in effect for the first time.

At the completion of the second stage all entries will be published, but the jury declined to release any specific information on the winning entries at this time. Chairman Qualls did comment, however: "The jury was generally impressed with the over-all quality of the entries. The five finalists, with proper development, each can create a good, function and handsome building for Ball State. Each finalist has indicated a different kind of ability."

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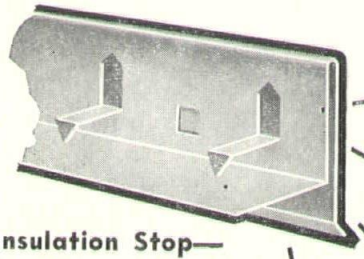

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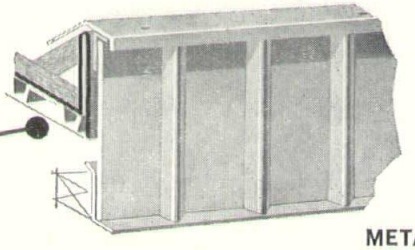
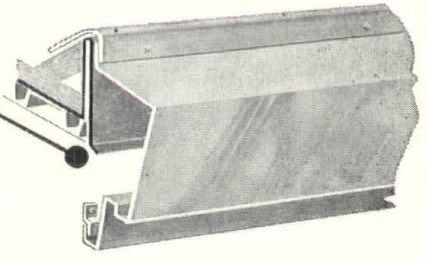
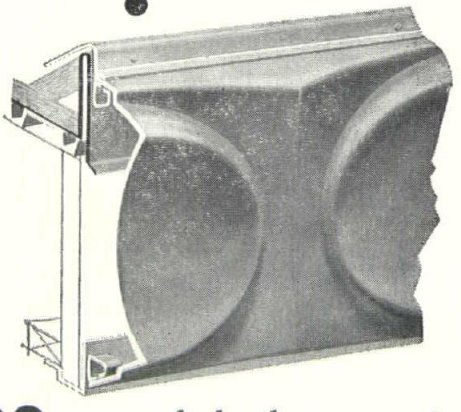


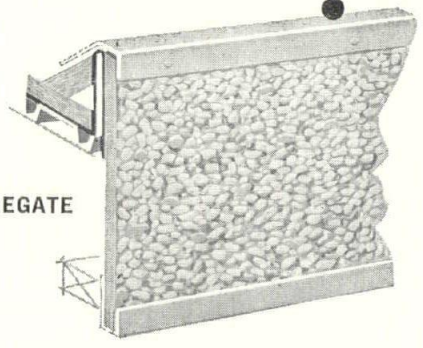
METAL—formed—any shape



ACRYLIC—any shape



AGGREGATE



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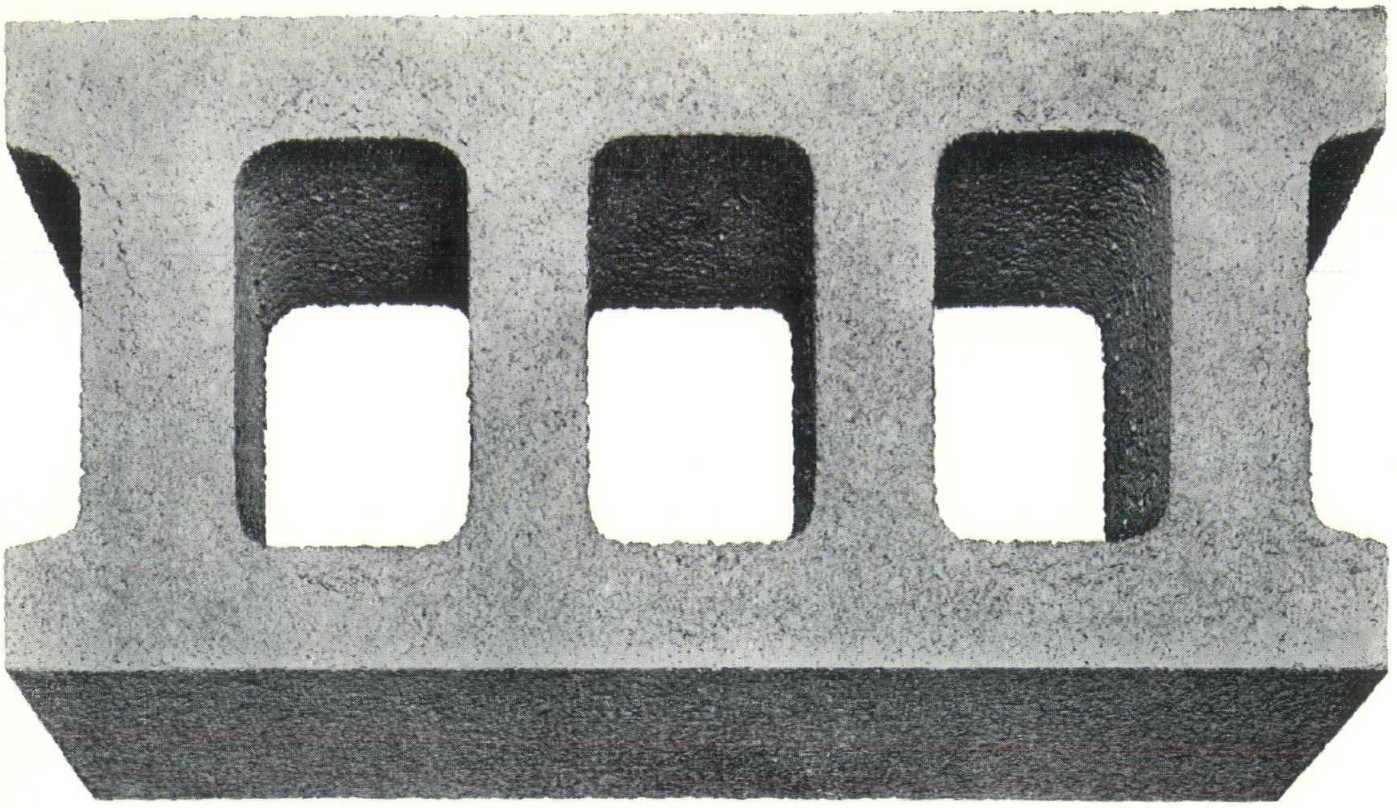

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Were You There?

TOP-FLIGHT SEMINARS, delightful entertainment and a busy three-days pretty well tell the story of the 1967 ISA Annual Convention held in early October at the Dorchester Inn near Hammond. Excerpts from the two professional seminars on EMERGING TECHNIQUES form one-half of the feature material in this issue.

In the Society's annual business session, current Vice-President Robert Schultz AIA of South Bend was elected president for the coming year, to be supported by John Fleck AIA, Indianapolis, as vice-president, George W. Cox AIA, Muncie, secretary, and E. H. Brenner AIA, Lafayette, treasurer.

The convention also voted a $1.00 per employee per month increase in ISA Sustaining Dues, with the additional funds primarily ear-marked for further professional activity in legal matters and relations with the various governmental agencies, and approved several technical bylaw amendments including one to make the vice-president the president-elect and automatic successor to the presidency.

Credit for this year's successful convention should go to Don Sporleder AIA, University of Notre Dame, the convention program co-ordinator, Past President Jim Turner AIA, Hammond, for organizing the social calendar, and to Jim and Mrs. Turner for a great send-off for the convention the evening before, and to the area host architects and the Board of the Northern Indiana Chapter.

Convention highlights aside from the seminars would be hard to catalogue, but certainly Senator Birch Bayh's annual banquet address, AIA Vice-President Robert Hasting's business session remarks, the dinner outing to Washington Park Racetrack, the Turner's open house, the Notre Dame-Southern Cal football excursion and the wind-up casino party should all be noted and extolled.

Special credit should also go to Ron Resch from the University of Illinois (who holds a most interesting split appointment as assistant professor in architecture, art and the coordinated science laboratories) for his very vivid presentation on designing dynamic structures by computer and graphic presentation; to mathematician Tom Sodano of Bradley and Bradley, Fort Wayne, for sharing the computer program he created; and to Ken Featherstone for his job as moderator on Friday.

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EXCERPTS From EMERGING TECHNIQUES

I am going to play my usual game and lead straight into this issue as an international irritant because I want to suggest three things as a means of getting the discussion to the boiling point.

First of all, "Where are we going and what are the purposes we have to fulfill during this generation?". Now I will threaten you immediately by saying that if you don't succeed in the variety of things which I hope we will discuss this afternoon, there are plenty of other people who will succeed and pick up where you are now.

Secondly, "By what means are we making progress?". These are the techniques we have gathered here to discuss.

And thirdly, "Technology in itself, technology in vacuum, is not really going to advance any peoples very far." That technology, whatever it may be, requires that it be supported by, stimulated by and inspired by, certain ethical concepts, certain ultimate aims and intentions. These make the whole objective of moving and advancing effective, so that we appear not merely trying to cope with an ever-mounting range of difficulties but have some sense of target, some sense of inspiration, at which we can aim and which will tend to keep the appalling social and economic difficulties which surround us in some sort of balance and perspective.

It is natural to expect we shall re-examine the surfaces of the earth to greater effect so that we stop using the bull-dozer simply as a means of shoveling stuff which has become an embarrassment about and start understanding the basic materials with which, as architects, we are concerned.

These things are not likely to advance very far effectively in the present state of the classrooms, it seems to me. I expect I share with many others in this room a general discontentment with the way we are attempting to cultivate and broaden the intelligence of the next generation. I would like to suggest to you some very particular things that concern me with respect to classrooms and classroom techniques.

One is optics; I thing we are utterly failing to cultivate the sense of sight upon which perception depends. If you will look at most architectural magazines, you will see exactly how the buildings have been designed: By the computor which has no concept of sight, or of perception, at all. Once we recognizze that we, as human beings, have been operating in the manner that the computers are about now to take over, I hope you will see the threat. It will be so simple for them to take over, because what have they left to improve? We read in the flat, reproduction is in the flat, the cinema screen is flat, the television screen is flat. We get a sense of depth in the latter two simply by the fact that there is a kinetic value which gives a sense of movement, and we interpret that movement as depth. Nevertheless, the whole presentation is flat.

Small wonder, then, that the facades come out of the mass-produced window factories as flat as they can be, and how embarrassing it is to see a modern building angle on; it's simply that someone has taken the paper or card like this and bent it. It is simply because we have so flattened our sense of vision that we will probably find the computers so welcome, merely to take the druggery out of design.

I am concerned also with the computer itself, because the computer offers us one particular advantage which we have not had before because of the expense and costliness of time: The value of decisions by comparison, so you can decide a variety of circumstances, make a selection of that which is best, and then submit that to committees, because so much of the decisions in the democratic circumstances which we have inherited depends upon committee decisions. And most committee decisions with which I have had the misfortune to be concerned have been decisions in vacuum, decisions in ignorance, and certainly, decisions in design blindness.

With respect to the design not only of buildings and structures of every kind, but of environment in its undivided totality, I would plead that we study very closely the circumstances of ecology as a standard of intelligent advance both with respect to our behavior and our control of the environment and the detailed design of parts of the environment which we are intending to change.

Secondly, I believe that structural materials of the future will be fundamentally chemical, and therefore, another shift in the classroom emphasis: I would like to

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see circumstances of basic chemistry introduced into the architectural classroom.

And the final thing is this infinitely fascinating aspect of kinetics—designing with things in motion, designing in a way to appreciate the interplay of things in motion as they are moving themselves or as static things seen by the moving eye.

If we continue to degrade our environment to the extent that is now the case, we have no alternative but to explore and be driven to the other surfaces of the earth.

PROFESSOR PATRICK HORSBRUGH

I would like to comment about some mundane things that the architect usually doesn't have to concern himself with. We're working now on a total system, and this involves providing the computer first as a tool to the feasibility study planner, giving him cost data and other information for his first preliminary feasibility study, to compare the project in concrete with the project in steel, and then going on and giving the designer, not tools to design with, but aids to design in a problem-oriented language that is not oriented towards the computer but rather is oriented towards the user so that all you do is describe a structure and then you say, "Solve."

The next thing that comes up then is estimating. You go into a cost library built up on previous jobs and you find out that concrete and steel placed in certain ways cost so much. You have the volumes of the particular structure you are working with, and you can come up with the cost of the entire project. You can also plan the building of the structure, you can schedule each part of the building of it, and as you are planning, you can study the effect of resources.

You use the computer to give you numerical information which can help you make decisions which are more quantitative than qualitative—at least they're not blind committee decisions.

The next thing then is the actual updating of the project itself as it goes on; each night the superintendent can tell the computer how much of the project has been completed and the president of the firm has a day-to-day cost control system as well as having all of the payrolls taken care of and so on.

Hopefully, this total system will help reduce the number of failures of firms in the construction industry.

I would also like to mention that we are developing a remote terminal design aid computer system. We will have teletype consoles in fifteen or twenty architects' offices connected to a large $600.00 per hour rental computor. Each of these offices will share in the cost of this computor and thereby reduce the cost to each of them to about $1,000.00 per month, or about the cost of the 1130 system. This is an experiment at this point, and should be on-line after the first of the year.

PROFESSOR JOHN W. MELIN

There are three developments in the computor area which I think are going to make the computer very useful to the architect. The first is the concept of problem-oriented language: I think that the practicing architects and the AIA should create a problem-oriented language reserved to architects just as the engineers now are doing—that is, writing a language for the machine so that the architect can converse with it in his own language rather than have to talk to the machine in its language. The amount of training involved to enable a man to talk to the machine is then minimal, whereas it used to take years to teach a man the machine's language.

The second point is the graphic input-output. This is the manufacturer's job, whereby you can talk to the machine in graphic language rather than algebraic language. This is progressing quite rapidly.

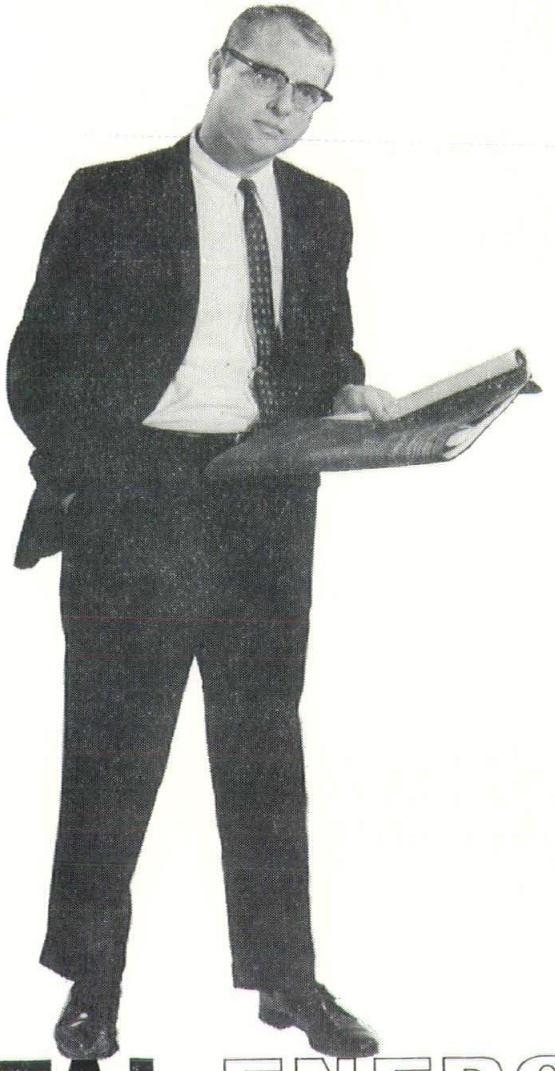
The third point is the remote console operation where you have the teletype in your office. When you are faced with a problem, you can go directly to the machine, send your instructions, and it directly gives you back its answer. The preliminary designer can't batch all his cards, send them off to the Service Bureau and wait a day or two to get back his answers. He has to be able to sit there, get his answers, make his decisions, then go back to the machine and have it run out his solution. With this direct contact between user and computor, preliminary design can be very rapidly handled, particularly if it can be done in graphics.

The machine also has a use in the final design, again in the graphic techniques. The machine has essentially instant recall; you tell it you want certain information, it comes right back with it. Here you can get by with batch processing because the turn-around time is not that critical.

You could do an awful lot of drafting with the machine, the type of thing that is now done by hand labor.

With the computer, you will be able to put architecture back into architecture, not fiddle with laborious details all the time.

PROFESSOR WILLAIM SCHNOBRICH



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The demonstration we have is a two-dimensional graphic display; it is also a three-point perspective and a job-oriented imput program.

I would direct your attention to the pictures here of a modular structure. This one is the initial drawing given to us, except that it was given as elevations. It was coded in the job-oriented language written by Tom Sodano, the mathematician at Bradley and Bradley. The rest of the pictures take the same imput data you see here and rotate that inside the computer to the various directions you see.

A couple of the pictures are from one degree elevation, about eye level, from three hundred feet away. Another picture is the same elevation, but from one hundred fifty feet away. Another is seen from thirty degrees in the air, looking down on it. We can generate an infinite number of these perspectives on the plotter and you simply look at them and see esthetically which you prefer.

The computer hasn't done a thing; all it has done is to plot the pictures.

The series of pictures here concern another structure. What we did with the computer in this case was to rotate the three-point perspective of the building in various fashions. You will note in the first picture that if an observer were to stand in this corner and look in this direction, this is what he would see. And if you were to stand in this corner and look in this direction, this is what you would see, in a magnified drawing. Again, it is one program.

After this was drawn, it was decided that the building would look a little better if they changed the design, so they added the columns, as you see in the other picture here. The view at the top is looking from inside the building through the windows, and the others are rotating the perspective in various degrees.

Our aim is to get to a total integrated system. The approach to the problem is basically to take this as the first step, create that drawing. Once you have the drawing, the information is stored inside the machine. Now, let's optimize the lighting. You know how many lumens are required, you know that the wires have to run in certain fashion, they can't hang from beams, they can't run in front of windows. Let's run them into a junction box and minimize the wiring.

Let's do the same thing with the plumbing, and figure out where the plumbing has to go. The heating and air-conditioning requirements we already have, but we haven't integrated them into this pattern as yet. But why not put one set of drawings and keep laying them out there with the heating and air-conditioning, plumbing, wiring, anything you want to put on there. From this, of course, you could get a bill of materials to build, it and naturally, you can get a cost estimate.

How about an automated design engineering approach? Let's suppose we know the wind loads, point loads, snow loads and so forth. Based upon the tables of wide flange and I beams we have stored in the machine, we ask the computor which are required to build that structure most economically. We go in and trigger the stresses on it, and come out with a total bill of material.

The three-point perspective program has already been written and we will demonstrate it with a very, very simplified structure. For the purposes of our demonstration, we will load the imput information into the programmer to draw our house. The way the program functions, it does the lettering at the bottom of the pictur, tells what the azimuth is, how far away we are standing, and then it takes the picture of the house and rotates it in about six different configurations.

You can watch the plotter as it actually draws the house; with it, you can go up in the air, underneath, stand six hundred feet away, stand one hundred feet away.

This is a random access computor; the program is stored inside the programmer up here on a disc. We have now loaded the information into the car reader, which will tell the computor what functions will be required. The computor is seeking out the information —that's the little "zapping" noise you hear—and getting ready to use it.

We get a typed line out on the plotter which says, "Perspective, hide lines," which means that after you rotate this picture, if you didn't hide the lines, you would have all the lines on the back side, which would be very confusing. You can show all the lines, you can show the back lines as dotted lines, you can wipe them out and show it as it would appear.

And we are now in the process of plotting.

RICHARD EVANS

All architects I talk to realize that updating is a must, and most architects are doing it; some are doing it really fast. I hope that you will take advantage of some of these developments to give you more time for your design.

Five years ago you couldn't do a good practice; I don't think that the fee system which we have had permitted you to design a good custom building, to plan it, organize it, think it out. Now you can. Now a three man, five man or thirteen man office can do a good job if they are intelligent in carrying out and adapting the techniques which the aerospace, automotive and government resources have given us on a silver platter. All we have to do is use them; we won't even have to create them, just make them a part of our practice system.

In the next five years we will experience an age of technique involvement, whether we like it or not. The machines are here, and the firms which are sweating through the techniques of their adaption are really going to stand out in the future.

The main advantage of these new techniques is that they force you to think; you can't use any one of these

techniques without thinking out your problem. They will give you time to think, they will provide the opportunity for you to standardize and to think out the next part of your problem. They will give you the ability to create value judgments, to gather and evaluate more data and to come up with better answers. And they will certainly give you more reliability in your design. These are the real assets.

There are six technologies which I believe are really going to change your practice in the foreseeable future. The first of these is microfilm technology, developed in many offices not only for storage of material but also use of material during the production of documents.

Architectural firms are beginning to acquire printing firms, just to have the capability to do a quicker and better job of documentation. Multicolor printing is another technique that is beginning to catch on, again permitting better documentation and also permitting checking one set of prints with another to eliminate conflicts in the field. Halfsize prints are another means to reduce the bulk of drawings and still produce excellent results. Printing with half-tones, so that data can be superimposed upon drawings of buildings is still another new technique.

Retreival or image drafting is another field we will hear a lot about; it permits us to lift information directly from one source and apply it to another through adhesive transfers, saving the laborious copying of the past.

In data processing, there is a whole string of desk top computors to permit more calculations in the architect's office. Another office aid will be the computer teletype console hooked to a remote large computer installation. Small offices don't have to buy computers, they can rent time from banks, universities, etc.

Magnetic tape technology is one of the possibilities for small offices, handling specifications and other typing chores.

Information systems permit the handling of a great deal of material in a very small space. Automated graphics, while not too close to serving architects for a while, are coming, providing automatic drafting. And there are machines which will do renderings from the elevation information you feed into them.

There are many non-computer techniques any office can utilize to turn out work more quickly and far better. These primarily involve the organization and management of the office, working out methods and procedures, thinking of ways to improve service and to modernize methods of producing working drawings and specifications. You are going to have to get involved in these.

Small offices do very creative work, and the small office doing highly creative work has a far greater change for survival in the future than the large office. With time-sharing on computers, with intelligent microfilming, with the availability of good printing technologies, with a data bank of good information, and a selected group of five or six good people, you can do the work of thirty or forty men in the future. The equipment, the techniques and the technology we are developing can take the place of many of the people we need. If you can't get good personnel, think of the other techniques and of buying equipment. Capitalize your practice, get involved in techniques. It will be very rewarding. But don't use techniques as gimmicks.

If you could discipline yourselves to take twenty per cent of your time, one day a week, for the next year, just to investigate and to adopt new techniques, that time would be the salvation of your profession. I have seen the big firms do this, firms that have four or five researchers who do nothing but think about the use of computors, network planning, etc.

I would also like to see firms join forces at the local level to take advantage of some of these techniques. I have been working with two parts of the country on this idea of developing centers, and I have suggested several functions for these centers: Depository for disseminating absolutely the latest product information; samples area; business accounting systems; expert services; model-making; printing; perspective machines. Think about this approach.

Some architects dictate what they want to do on a job; they set goals for a job—better design, lower cost, better architectural programming. Many firms have very clearly stated their goals for developing their practice. Write your goals and surround yourself with the right people; this is one of the really effective techniques of the future.

PROFESSOR C. HERBERT WHEELER

Recently I have become most interested in how to use this new tool of the computer to produce better design, not only architectural but also structural and mechanical design—the whole integrated system of design that goes into good buildings.

Many of the new techniques can be used by the small office as well as the large office. There are several ways you can gain access to a computer. The small office need not use a small computer; rather, the converse is likely to be true; It will use a large computer through a time-share operation or Service Bureau. Or several small offices can unite to purchase or lease a small computer just for themselves.

In trying to help the designer solve design problems, for example, we utilize the computer to produce door schedules, analyze building codes in the various cities in which we work, survey existing facilities, evaluate illumination requirements, determine auditorium and seating arrangements, solve elevator problems and evaluate overall plan development concepts.

We are now in the process of trying to teach the computer to understand English; presently we can communicate with these machines at about four different levels. Originally all communication was by machine language—all zeros and ones, a very cumbersome procedure. Next level up is the symbolic level, then comes Compira, presently used by about ninety-five per cent of all computers. What we are working on is the problem-oriented language with which we communicate with the machine in English much as we communicate with our

associates. A structural engineering language is now available, and we are working on a construction progress language for CPM, and for the first time, we are attempting to enable our architectural designers to communicate with the computer in English regarding the various architectural design choices.

DR. NEIL HARPER

I can't let go without making one particular remark about the computer at this time because it disturbs me a great deal, and we use the "monster" in our own shop. Coming from the city of Detroit, I have been made very, very conscious in the last few weeks of the human element of our society. I have also been very conscious of the fact that, as architects and as engineers, we tend to approach the use of this new device for those problems which are easily definable and which can be reduced some way to mathmatics. I am terribly disturbed that, as professions, we are not insisting on more research and development into the less definative areas of sociology and phychology as it affects our design.

PPG Industries made a Foundation grant this past year to MIT to do an analysis of the systems approach to design that the aircraft people have been using, primarily to discover, once and for all, hopefully, whether or not this mysterious approach really is applicable to urban planning. The disturbing thing of all this is that this distinguished group at MIT must limit themselves to the physical imputs, the physical parts of our environment, the physical parts of our cities, and concede that we are not at a point in our development and our knowledge where we can begin to put enough social and humanistic imputs in to really test the design.

ROBERT HASTINGS

QUESTION: Every time the topic of the computer comes up, the fellow who operates an office of one to five men asks, "What can the computer do for me?". Who can comment in a specific and meaningful way on this point?

ANSWER: The small firm can start out with the minimum computer, or the remote console which can be rented for $400.00 a month. The teletype terminal costs about $85.00 to $130.00 a month. You then have to add a plotter if you want to have plotter output which I think you would want to have, and you will have to have one man working on this, so your total will be around $1,000.00 a month. Or three or so small firms could share one computer like the 1130 and get along extremely well.

QUESTION: What is the basis of the data stored in the computer?

ANSWER: We look at a number of past building experiences, see what kind of mechanical area core has been required in the past, what kind of electricians' closets, etc. The structural engineering data is something which has been developed in the past few years.

QUESTION: Do you have any cost information as to how the use of the computer relates to your fee?

ANSWER: The structural engineering program we use is essentially the stress program that came out of MIT. We just used it and charged the computer time to the client since that was replacing man hours. Other programs such as we have developed ourselves, our illumination program, auditorium design program, truck turning program and others, if they are developed for a specific client to solve specific jobs, we will usually charge the job. If, however, it is being developed for a number of jobs, or in general to improve our design capabilities, then we charge it to overhead.

QUESTION: What does the equipment here today, the computer, plotter and so on, cost?

ANSWER: The equipment you see here rents for about $1,600.00 a month, exclusive of the plotter. This computer rents for about $700.00 a month, the bottom of the line.

QUESTION: Does a computer think, does it make judgments?

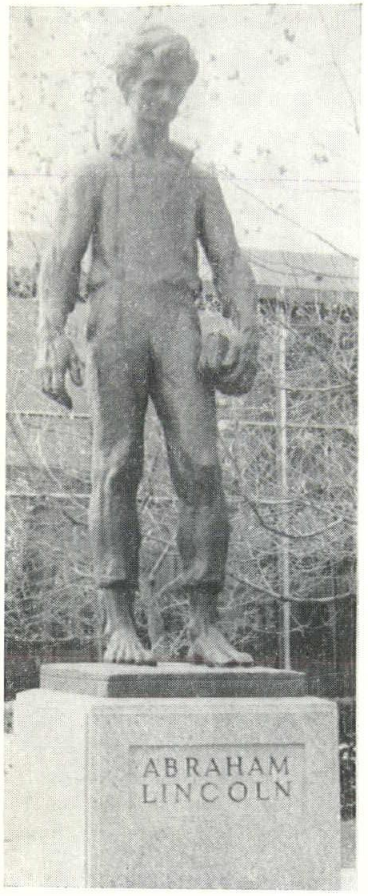
ANSWER: No. A computer possesses the capability to do exactly five things: Add, subtract, multiply, divide and compare two numbers. Putting these together, you come up with everything the computer does. The creativity of the person who puts the information in is the all-important thing. The computer is a very stupid machine. It does exactly what you tell it to do, but very rapidly.

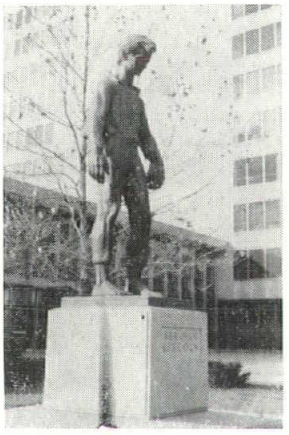
QUESTION: When is the time to become involved in automated techniques? Is the field still changing too rapidly to make a sensible capital investment?

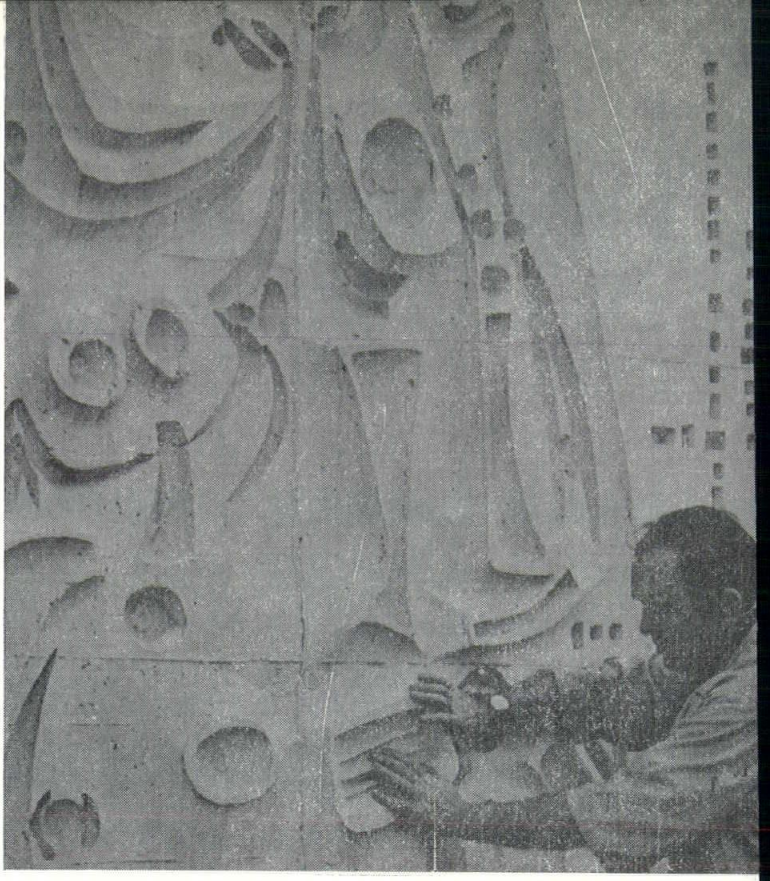
ANSWER: I find the smartest people are still leasing their equipment. There is no general agreement on what is the best arrangement, and I see no real trend developing.

QUESTION: Should these new information systems be developed by the profession or by private enterprise, such at the F. W. Dodge Corporation?

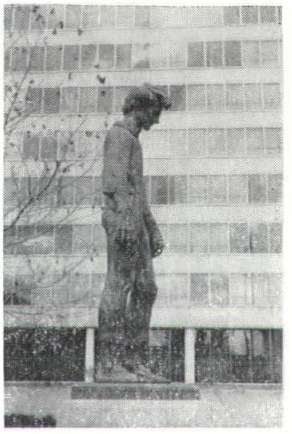
ANSWER: I think the profession must do the creative thinking and determine what they need, and then let private enterprize compete to give them what is demanded. The practicing professional must be the originator of the idea.



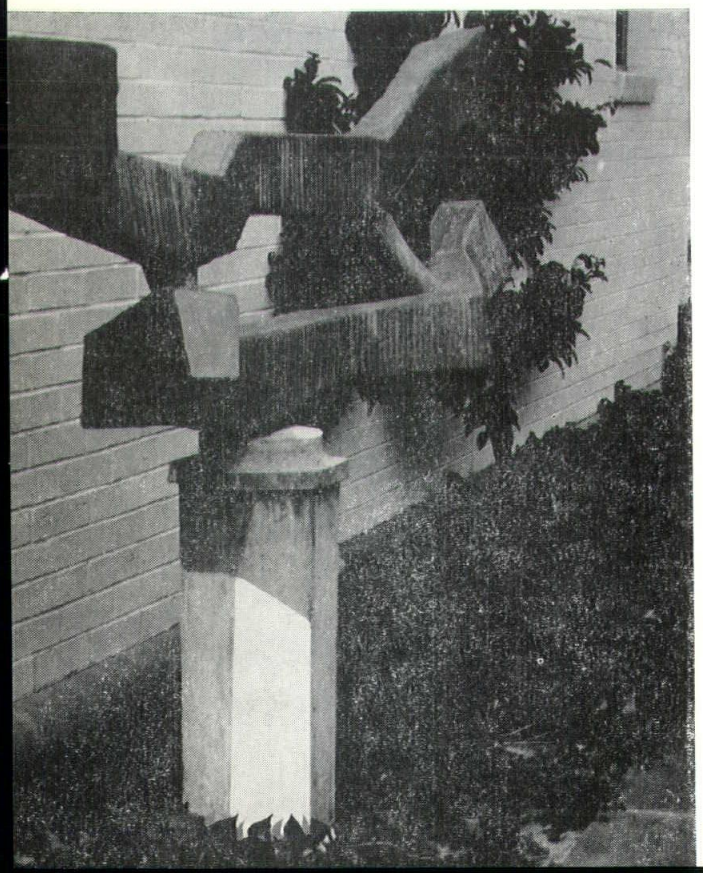




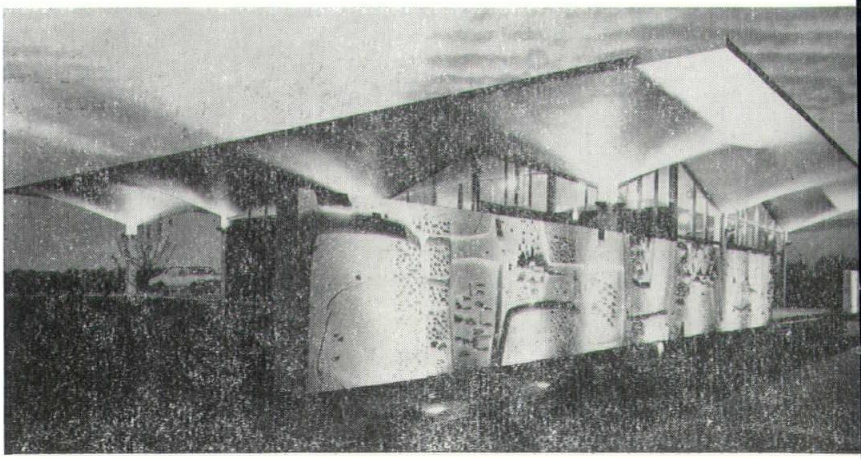
ROBERT YOUNGMAN AT WORK



THE YOUNG LINCOLN,
STATE OFFICE BUILDING PLAZA,
SCULPTOR: DAVID RUBINS

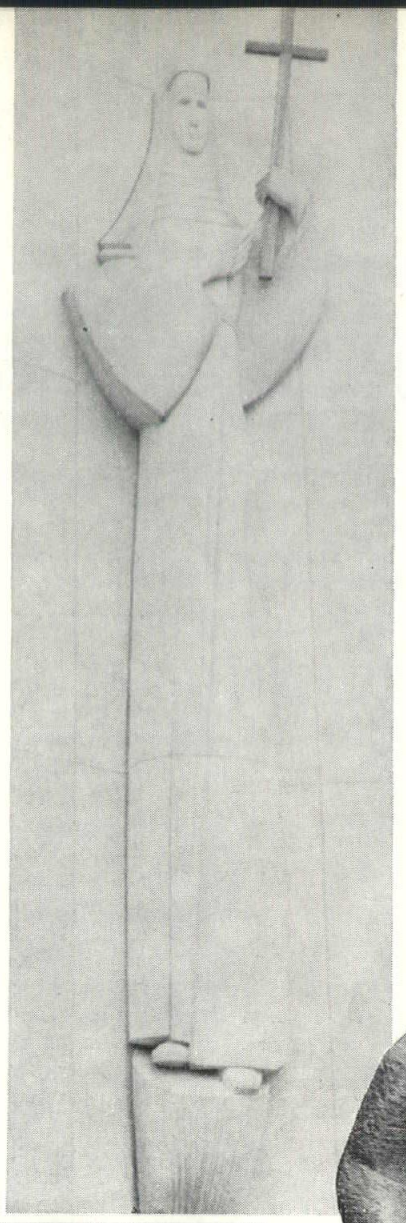


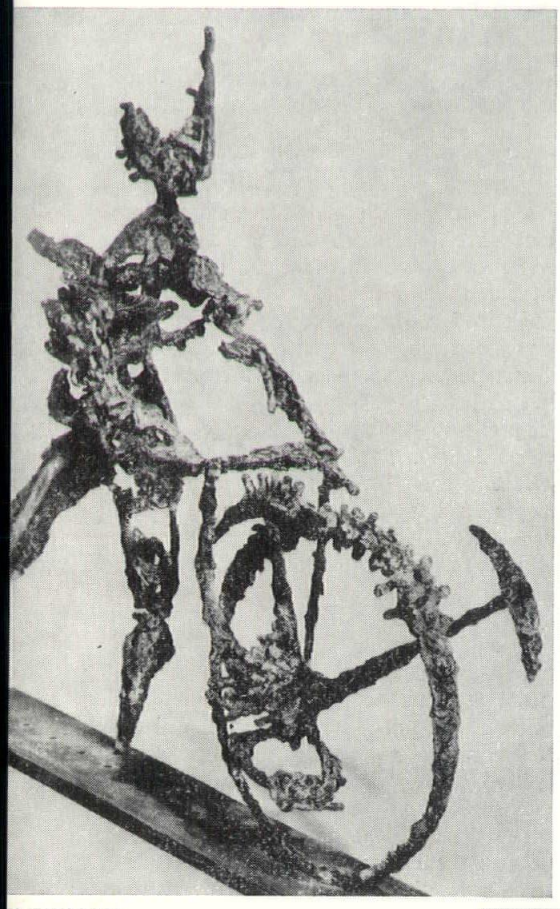
COURTYARD SCULPTURE
SCULPTOR: ARTHUR WEBBER, INDIANAPOLIS



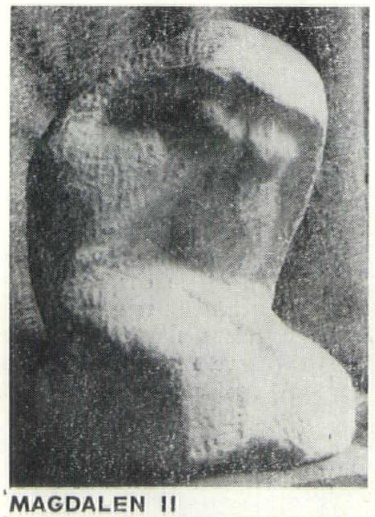
IRVING MATERIALS OFFICE BUILDING, GREENFIELD, INDIANA
ARCHITECT: JOHNSON RITCHART AND ASSOCS., ANDERSON
SCULPTOR: ROBERT YOUNGMAN, ANDERSON

DETAIL, ST. RITA'S CATHOLIC CHURCH,
INDIANAPOLIS
ARCHITECT: CHARLES M. BROWN
SCULPTOR: REV. ANTHONY J. LAUCK, CSC,
UNIVERSITY OF NOTRE DAME



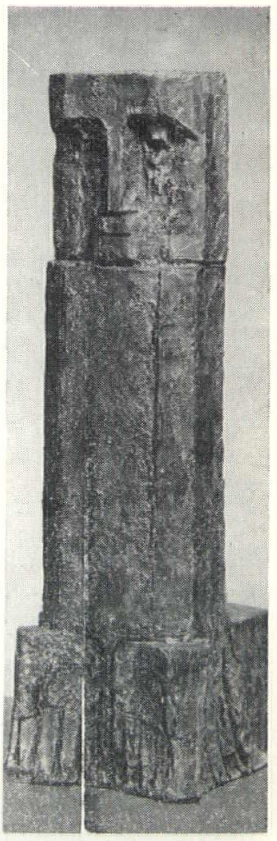


PLOWMAN
SCULPTOR: ROBERT YOUNGMAN
ANDERSON, INDIANA



MAGDALEN II
SCULPTOR: REV. LAUCK

MONK IN MEDITATION
SCULPTOR: REV. LAUCK



MONOLITH MONK
REV. LAUCK

SCULPTURE

Sculpture is in! A trip to New York or a glance at TIME will quickly confirm it. Re-unification of architecture and visual arts was inevitable. Their separation was temporary, a result of our adjustment to a new, very different age. But now we accept our new age with all its difficulties; we strive for a more complete environment with an intuitive content where man feels more than a part of a great mechanism.

Sculpture, being three-dimensional structure, can participate to a greater extent in environmental space than the other visual arts; therefore, it predominates in the reuniting of architecture and art.

Many architects in our area have been unusually vocal recently in expressing their belief in this re-unification. But in spite of all of this expressed approval, we lag in the actual re-unification. I am not greatly disturbed by this delay; I see it as a refusal to blindly follow a current trend, only to find later that our buildings have been plastered with once popular novelty we can no longer bear. Too many examples from the past remain to remind us of the danger of selecting art on the basis of momentary appeal.

In areas where the current trend is most pronounced, art is still very much gallery oriented, and the shape that a trend might assume might be more merchandising than an expression of our times. When we apply current gallery standards to architectural sculpture, we must also accept the gallery practice of "moving" the work of current "stars" with an easily identified but usually very confining style. Such popular trend art is subject to quick obsolescense, and is very costly. We in this area can watch the popular trends from afar, then proceed with the application of the visual arts to architecture according to our own standards. No sculpture is immune to changing style, but a solution based on sound problem-solving logic and cooperation between sculptor and architect stands an excellent chance of remaining tolerable and correct for the situation.

Why have we accomplished so little? Cost is a factor, but not the only factor. Sizable sums of money spent on various surface treatments and decorative effects to provide some distinction stand as proof of this. Many architects just continue to think of art as separate from architecture—as an add-on cost. They fail to recognize its ability to solve problems in the architectural environment now being solved by other, equally expensive, treatments. I say this because of a particular personal experience.

The Cor-Ten steel sunscreen designed for Woodie Garber and Associates of Cincinnati for the Hunter Savings and Loan Building, with its dark, spooky rust color and painted accents, forms a metal mosaic around three sides of the building. The very character of the building is so dependent on the screen that it had to be a first consideration rather than the last. The screen turns a very fine building into a notable building.

The cost of the twenty-two panel screen was less than that of an elaborate neon sign. On such a comparative basis, a major sculpture installation, capable of establishing the vital and distinctive character of a building, must be considered a bargain. In addition, the screen drastically reduced the air conditioning system by eliminating direct sun penetration between 9:00 AM and 5:00 PM.

Cost is an ever-present problem of the architect, and should not be treated lightly. The conscientious sculptor will make every effort to assist in keeping down cost. He will develop concepts in keeping with the budget and select working procedures with cost in mind. Modern technological methods make sculpture possible where traditional methods would not. Bronze casting and stone carving became prohibitive for all but the most liberal budgets; welded steel, fiberglass, the various plastic resins and modern versions of concrete are fully satisfactory and can be used at costs within reason. These new mediums are not mere substitutes for the old—they have excellent characteristics and virtues of their own, and often are better suited to our current direct expressive needs than the older mediums.

Who should sell this art for the architectural environment? The architect is the overall visual organizer, the only person who can bring the total physical functioning component and the total intuitive component (including visual art) into a complete and harmonious relationship. If sculpture is part of his concept, the architect will sell the client on its usage just as on any other aspect of his concept. When the architect is bypassed in the purchasing of art, he has lost a degree of vital control. The artist might assist in convincing the client, but the substance of selling will be the architect's, an instrument of control he will want to retain.

Within less than a decade, we have witnessed a dramatic change in the public acceptance of art. With art being sought and collected by individuals and corporations, much of the automatic sales resistance we would have encountered is gone. We expect the client to turn a deaf ear to the suggestion that art be a part of his new building, and he may surprise us by recognizing our suggestion as reasonable and even vital.

We have the creative facility as artists and architects to bring about the re-unification of architecture and the visual arts in our part of the country, and the time couldn't be better.

ARTHUR WEBER

Architectural sculpture, whether free-standing or integrally designed, is part of a total design scheme and to be successful, the joint judgments of architect and sculptor are required. This field of sculpture has all but disappeared today.

One reason is that architects have seen too much banality for too long, too many figures of blind-folded justice on court houses, too many figures and groups that are only decorative. Though they may have served a purpose to impart scale and ornamentation, such sculpture rarely had human significance for their ages.

Perhaps another reason is that architects have found in new materials and new engineering techniques the exciting prospect of exploring their own field specifically. The forms which new materials suggest are understandably close to architects' hearts, and they may feel these are valid and handsome and need not embellishment by another art to expand their own.

But these huge, barren, unadorned expanses of flat glass blocks and unalleviated concrete forms, while reflecting our own hugeness and energy, also express our society's disregard and indifference to man. Whatever man builds for his daily use and immediate environment should always have a human scale clearly and definitely established, with detail small enough to be related to the size of man and within his immediate comprehension.

Walking the streets of any large, congested city is not a very human experience. You are affronted by unrelieved size and made aware that hardly anywhere is seen the hand of man. These buildings, assembled with machine-made, pre-fabricated parts, seem cold. Perhaps this construction is an economic necessity, but a doorway might be enriched by a sculptor and give a warmer welcome.

Our economy requires huge city buildings, floor on floor of repeated design, but it still is possible to break some of the monotony of these facades by a few architectural propections or indentations. Certainly the lowest three floors, which come within the sight and scale of man, could be alleviated by carving, ceramics or bronze. What is done need not necessarily be figure or floral forms, they could be symbols or abstract shapes. But there should be curves, detail and richness, at a comprehensible size.

This problem of great size concerns the modern architectural sculptor; can he work at that tremendous scale? Very large sculptures have been done in the past; the Egyptians did them with abstract translations of nature reflecting the enormous social significance of the Pharoahs. The Colossus of Rhodes was huge, but done in the illustrative, theatrical, Greek Helienistic period. The Statue of Liberty embodied an extremely important 19th century idea but fails as monumental sculpture because it has none of the grandure abstract design might have given it. Picasso's recent very large Chicago sculpture attempts to relate to the huge buildings surrounding it, but fails primarily because it means nothing; it is merely a small sculptural work enlarged gigantically as a stage decoration.

No one can do a good piece of architectural sculpture without a sober and deep-rooted, inate instinct and respect for scale. Mere size is a shoddy substitute for monumentality.

In many ways there is some of the Baroque spirit in architecture today. That age knew size and energy, consistently emphasized size by the use of detail and showing energy by its weight and large, vigorous curves exploring space. It is not the fashion today to regard the Baroque highly, but we also try for size and energy because that is our national nature, and that period has lessons for us in the good use of architectural sculpture not only for scale but also for human warmth.

The Seagram building in New York did not try for Baroque weight, but it did try for huge size. But its size is not realized because it is so spare of small architectural detail which might have given it a sense of scale. Where is the rich sculptural detail at eye level that could also have enhanced scale and given it some Baroque warmth? The TWA terminal understandably searched for lightness, but it is Baroque in its huge, flight-like imaginative curves. It is equally lacking in detail to suggest its size, however.

The contemporary style of concrete buildings is Baroque in insistence on weight, but its lack of small architectural detail, again emphasizing weight and size, and its lack of sculptural detail suggest a re-study of the good points of the Baroque. I am certainly not suggesting a revival of Baroque today, with its florid fussiness or its extravagant decorative motifs, but I think we can still learn from its sound architectural ideas.

The one element lacking in contemporary architectural styles today is the imaginative use of sculptural decoration to enhance an architectural intention. The great building styles of Greece, Rome, the Medieval age and the Baroque were well served by architectural sculptors. A reassessment of their value is due today.

DAVID K. RUBINS

I have been envolved on various architectural projects over the past fifteen years. Until now, the procedure has remained essentially the same. First the architect became interested in sculpture and then sold the idea to his client. Occasionally the situation was reversed and the architect was the last to become interested. In any case, a dream, a softness, a little magic was envisioned by someone and he in turn sold it to someone else.

To sense this and be able technically or professionally to give this dream form and meaning is one thing. But to negotiate this, either with architect or client, is another entirely, demanding certain creative talents many sculptors seldom have sufficiently to persevere for commission. No one recognizes a universally accepted procedure for commissioning works of art for architecture; it is a never-never land without a leader. This is a great loss, considering the numerous talented people capable of executing architectural work whose talents and products simply go wanting.

However, all is not lost for there are people in both art and architecture cognizant of the dilemma and flagging the architect and his client into awareness.

Sculptress Anita Ahrens, Arts Editor of ARCHITECTURE CANADA has compiled biograhical data, photographs, etc., of Canadian sculptors, painters and craftsmen whose work is wholly or in part architecturally oriented. She then provides a kind of dating service for all concerned, and has organized travelling exhibitions of photographs showing examples of successful projects.

Louis G. Redstone FAIA, director of the Detroit Chapter, AIA, has written a book on just this subject, which will be available next spring. Mr. Redstone has worked successfully with many artists down through the years and is a great drum-beater for art and architecture. I am working now on a major project for Mr. Redstone envolving 4,360 feet of cast concrete sculptured panels each 17 feet by 15 feet.

Cincinnati Architect Woodie Garber long has been an enthusiastic supporter of arts for architecture. He and Planner Hayden B. May have just completed the University of Cincinnati campus plan with a sculptor as an integral part of the design team. This is a completely new application of sculptural judgment and architects should note that the sculptor should be contacted during the prime conceptural stages.

A complete sculpture and visual system is envisioned for the total project: "The outside living areas require defining systems . . . accomplished by variations from and within the vertical planes that establish them. Walls seen from below, edges defining the limits of areas looking down from, can be expressed by a pattern of the variation in the horizontal planes that define them. Forms expressed by the manipulation of these planes themselves, projected into a pattern of seats, walks and space dividing intervals, reinforced by the shape and disposition of planting, shade and shadow, become a small tranquil sculpture at which one may look, in which one may move and of which one becomes a part." (Quoted from Campus Plan Data, University of Cincinnati).

Another major project utilizing the broad application of art for architecture is the University of Gwelph in Canada. Hancock, Calvert and Oxley of Toronto are the planners and Walter Kim is the project captain. In addition to commissioned sculpture, many of the major sculptures from Expo are being moved to this campus and will be phased into micro-environments for the new landscape and its architecture.

I am optimistic, for landscape architects and urban planners also are rapidly becoming a new client for sculptors. The sculptor's judgment is marketable as well as the projects he produces. This concern for humanism within the architectural complexes can contribute immeasurably to the enrichment of man's total environment.

ROBERT YOUNGMAN

It is an unworthy mother who will not talk about her children, and one might say the same about artists — most artists. They are willing to discuss their own work, provided the mood is right and the company is sympathetic. At any rate, I should like to say a little about several sculptures of mine; they have some pertinent part to play today, and what may be said about them specifically may lead on to a few more general conclusions.

The first is "Magdalen II," a relatively small stone measuring about one foot high carved several years ago from a block of limestone fairly fresh from the quarry and easy to cut with the chisel. The carved figure kneels with her veiled head bowed in sorrow for her crucified Friend. I tried to suggest through the crouch and twist of the figure the emotion that shook the woman. The simple, heavy forms were initially kept to retain a sense of good sculpture, of substance through volume, of pleasing mass, but they might also be said to suggest the weight of sorrow.

Beyond this suggestion of suffering, I wanted to animate the sculpture and through its gesture to forcefully suggest its movement. Life is essential to any work of art, not just liveliness or a kind of blithe effervescence, but a deeper, more organic quickening spirit breathing through the sculpture.

Another work of sculpture on which I should like to

comment is the "Monolith Monk," a simple kind of image which might be most useful these days in any kind of contemporary building. It has an advantage of being convertible, looking good in a variety of art media, not only terra cotta in which this one was done for speed and convenience, but also in wood plank or stone block. By its very nature, it has an architectural spirit, which can be adjusted to the size and shape of the individual structure and used in either harmony or contrast, since it need not always be vertical.

This little terra cotta represents some recent experiments on the drawing board and in clay maquettes with the slab and column form. In recent years, I find myself being drawn back to certain simple elements of geometric form. I am drawn by their power to command the attention, their grave, sober entity, their bleak grandeur. I must set down, over and over, such plain, simple units of form, and then let them alone. When one begins to "fuss over them," to try to particularize or characterize the planes, one runs the risk of breaking down their nobility, their stature. What form there is resembles a kind of architecture, little more than a column or pilaster, left rather rough and craggy in the condition of natural clay.

Here then are two directions that I have taken in recent sculpture of my own. Either of them seems to me valid, not only as contemporary expressions in art for the museum, but as form worthy of the sacred setting and the Church. One may recognize such forms as the "Monk" in the severe modern temples of Germany or Austria. Perhaps more frequently forms like the "Magdalen" in Italy, France or Belgium. Less often we find them here but we are ready for them. We need to take our first steps with more courage, to bring them into the American places of worship. "Art is long" is a saying well-known to the student of art and the artist. It has taken us a long time to grasp the contemporary idea for our churches, and to recognize its great potential.

Of course, if a sculpture is to relate to architecture, the two must go together. There is the small sculpture which can be adapted to a shelf or a mantel-piece without looking foreign or out-of-place. But sculpture of size, such as that which is done with a building or garden setting in mind, can look so much better and do so much more for the adjoining spaces if it is planned in conjunction with the building and its surroundings. It should be a part of the original thinking, of the first blue print, when a structure is conceived.

Beneath and underlying the rush and rivalry and discovery of our time there is a more intimate life being lived, where personal thought exists and expands, where creatures sometimes reconsider their Creator, where bustle and noise give way to quiet, and activity gives way to contemplation, and where the life of the Spirit may still move freely and fully in the depths of our hearts. Perhaps such images as these sculptures may speak, may at least whisper to men, to remind them of this life and renew their efforts to take hold of it for themselves. For me, this is a more worthy purpose than many I might grasp, though it has no direct bearing upon the objective meanings of art.

Like the tiny reflectors along a broad highway at night, the works of the artist may one day mark a course of history for us, a bright thin skein of light that glows with man's dreams and happiest visions. Along the dark, silent paths from past to future, there may be one day no light to follow other than the golden glimmering of Art.

REV. ANTHONY LAUCK, CSC

That we are concerned with the relationship of sculpture to architecture indicates the association of these arts is not at this moment secure. Architecture has been the traditional indicator by which the balance and maturity of a particular phase of a culture is gauged. It is notoriously hard to evaluate a culture from within, yet such an attempt is germane.

Planning, architecture, sculpture, painting and furnishing are ultimately intertwined in the web of every contemporaneous culture in which they are produced. Mature cultures produce all of these in such a cohesive synthesis that they are almost impossible to separate and define; obviously, we are not living in a mature culture today!

As a matter of fact, communication has so tied the world together that the once distinct emerging, dormant or deteriorating societies are all interacting. So out of this turmoil, let's extract for examination our position here, today.

For the purpose of comparison, let us just glance at what we would concede as mature architecture as it appears in a previous relatively cohesive culture elsewhere. At its height, the Greek represents a total synthesis of the then arts, and defies an arbitrary classification of each art, as the amalgam becomes architecture. The siting, the planned relationship between buildings and the spaces surrounding them, the sculpture, the highly chromatic structures themselves, merge into a total concept which could as readily be labeled sculpture (on an urban scale) as architecture.

Not just the relief figures of the pediments, friezes and architraves, but the form of the architectural com-

ponents themselves, are sculture. Time unfortunately has eroded away the vivid applied color, presenting a totally different image from the original concept. These stately weathered bones have spawned a welter of monochromatic imitative styles, a pattern of dullness in exterior treatment difficult since to overcome.

We are now no longer in a primarily imitative period of architecture. Not just archiecture, but all the arts are in revolt against linear history and in a state of inventive ferment, hardly surprising when our world society is struggling simultaneously with the socio-economic impact of an accelerating science and industry imposed upon peoples in revolt. The science that made communication world-wide and instantaneous bears the seed of satisfying the yearning for a better life that it has demonstrated for all to see but that it cannot yet distribute.

Revolt against the accepted structuring of painting started before the turn of the century, and in sculpture is rooted largely in the Russian artists before the revolution. Architecture, too, revolted visually in anticipation of future industrialized construction methods. These were parallel to, and part of, the initiative departure of scientific and industrial research from historical precedent.

So we live in a world of upheaval, and our arts proclaim it. To see where our arts are going we must look at what we have that other, earlier cultures did not. The automobile, air-conditioning, electric lighting could be selected at random. Is the design of a car just engineering? Is it sculpture? Who cares what we label it? It is a fact of life, requiring a complex relationship of many sciences combined into a workable, cohesive, expressive, artful whole. It could and should be a thing of beauty as well as utility, like a Greek vase or chariot or clearstory.

The design of a building today is not related to the stone-on-stone methods and expressions of the past. It is rapidly becoming a correlation of systems, of structure, communication, enclosure, climate, light and power, etc. To be prosaic, have you seen a good looking lighting fixture lately? Illumination is a science, but not yet an art.

These systems all are too much engineered and too little concerned with their visual impact on the observer or occupant. The architect, artist, sculptor, designer or whatever we call him, must make this transformation. We design flexible interior spaces, we design flexible envelopes around them. The spaces within and without must be concerned not just with convenience and comfort but with tangible beauty. A painting on the wall and a sculpture in the garden is not enough. The painting must also be of the architecture and enveloping. The spaces and intervals themselves must be sculture.

With increasing new problems to solve, we need fresh new solutions. Art, still expressing its individual revolt against the confining traditions of the past, contains those practitioners who are now maturing to the stage of initiating collaborative solutions.

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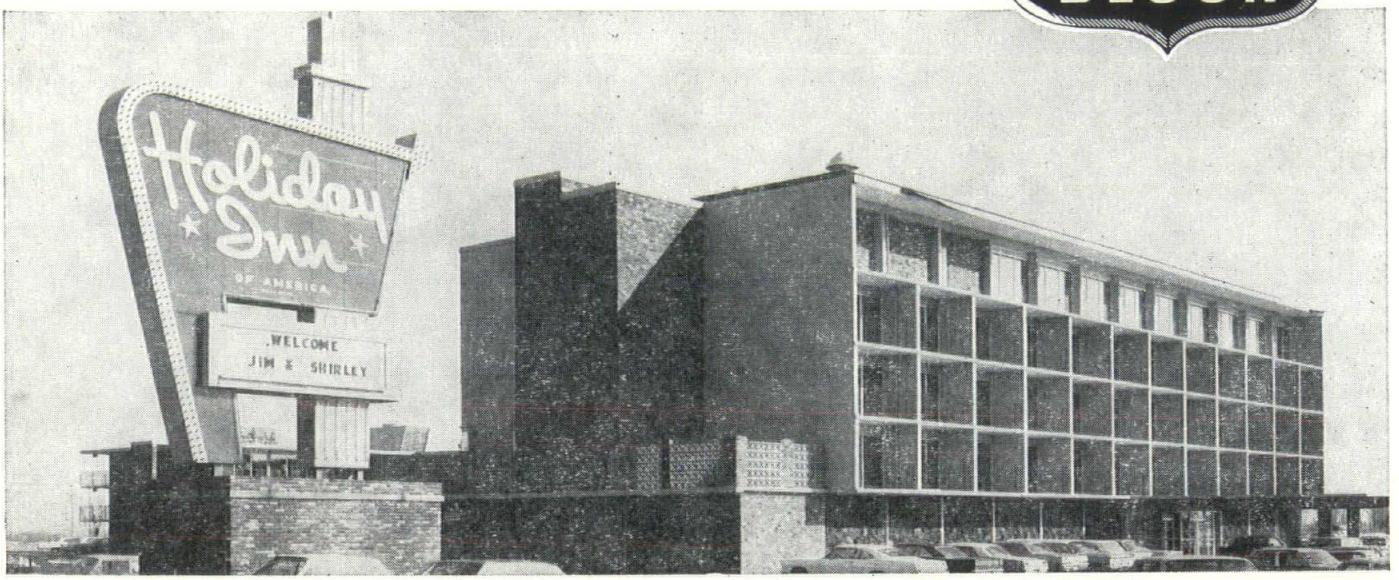

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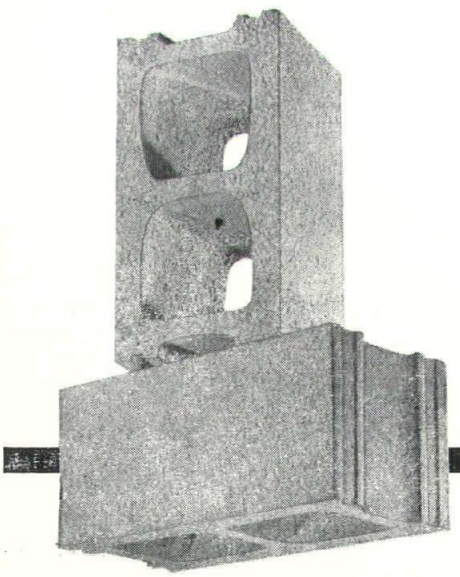

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Lee Carter

JAMES LEE CARTER, architect with the Indiana State Board of Health since 1938, died October 16th. Lee was extremely well-known in the construction industry through his work with the Board of Health, and his wife, Florence, has been secretary to Bert Westover, Director of the Administrative Building Council, for several years.

Mr. Carter attended Butler University in Indianapolis, was associated with Burns & James and Doeppers & Lennox, both in Indianapolis, and for a while had his own office in Brownsburg, where he and his wife lived until his death. He was born in 1906, and became registered as an architect in 1938.

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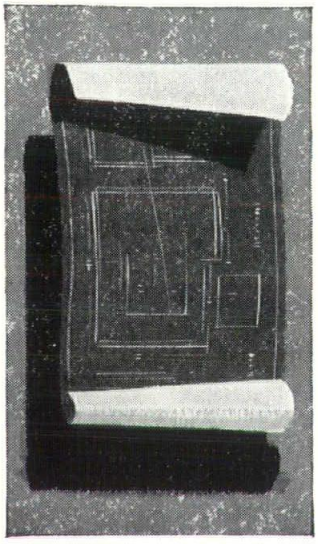

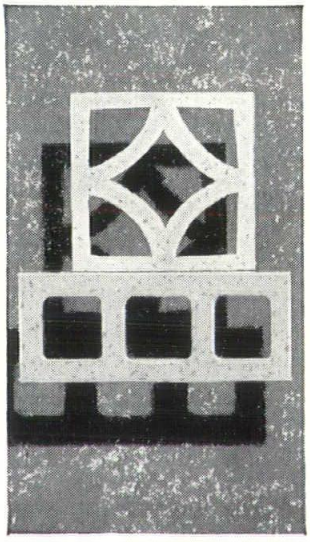

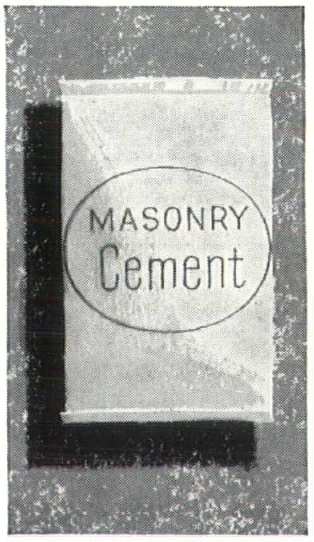

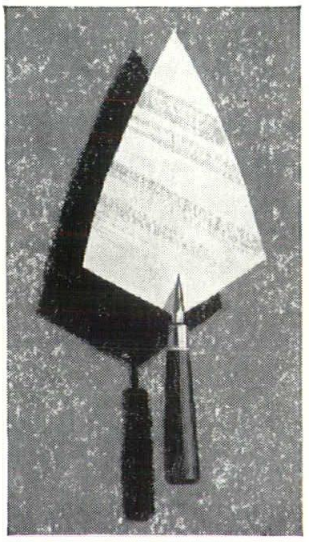

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Staff Expanded

FOUR NEW MEMBERS have been added to the faculty of the College of Architecture and Planning at Ball State University for the 1967 fall term, bringing the total staff to eight.

Named new assistant professors are Anthony Costello, John Maddocks, Marvin Rosenman and Robert Taylor.

Mr. Costello holds bachelor's degrees in architecture from Pratt Institute and Middle East Teknik University in Turkey, and a master's degree in architecture from Columbia University. He spent this summer in Europe on a William Kinne Traveling Fellowship from Columbia, and formerly was associated with Steinman and Cain and the Columbia University Planning Office, both in New York City. He will teach second year design students.

Another William Kinne Fellow this summer, Mr. Rosenman is a graduate of the University of Pennsylvania with a master's degree from Columbia. He was formerly associated with Gruzen and Partners of New York, and Leon Clemmer of Philadelphia.

Mr. Maddocks, architect and sculptor, has been on the staff of the Oxford School of Technology, Oxford, England, and this summer attended an Ekistics Conference in Athens, Greece. He holds bachelor's and master's degrees from the University of Florida, where he also served as a graduate teaching assistant. At Ball State, he will teach first year design.

Mr. Taylor has been assistant professor of architecture at the University of Kansas since 1965, with a bachelor degree from the University of Cincinnati and a master's degree from MIT. He has had five years experience in architectural design and consulting, and taught at the Boston Architectural Center. He will teach second year design at Ball State.

In addition, John L. Lantzius, landscape architect from Vancouver, British Columbia, has signed a contract to teach at the College in 1968.

Mr. Lantzius will come to Ball State to establish the Department of Landscape Architecture; he received his landscape architecture training at North Carolina State University, the University of California and Howard.

NEWS BRIEFS

ONR NEWS this month, appropriately, concerns art. First of all, the Talbot Gallery in Indianapolis, which in the past has furnished the rotating art exhibit at the ISA office, is moving. Their new home will be at 3646 Washington Boulevard in Indianapolis.

Secondly, the art exhibit in the ISA offices has been changed, this time through an independent arrangement with the Contemporary Arts Infinite, a new group of twenty-seven artists working in visual communications but quite talented in the fine arts. The nine works selected for hanging in the ISA exhibit include:

"SPRING," collage and acrylic by Ken Bloomhorst ($200)

"A WHALER," acrylic by Gary W. Lane ($225)

"THE BLUE HAT," acrylic by Gary W. Lane ($200)

"A KITE," polymer by Dane Love ($115)

"LE FEFER HALL," pen and ink by Cathy Wiggs Mahaffey ($100)

"SHADOW MOUNTAIN," water color by Charles Naugle ($100)

"HOME OF JAMES WHITCOMB RILEY," water color by Larry Roesler ($125)

"ROTHENBURG, GERMANY," water color by Joe Ross ($150)

"DEPRESSION," sculpture by James W. Shop ($175)

"VAN GOGH," lithoprint by Bonita Chandler ($50)

And finally, a new art gallery recently opened in Indianapolis and is now the state's largest graphic art gallery. The Meridian Gallery is located at 3117 N. Meridian Street.

The gallery is now including sculpture in its permanent collection, with a current exhibition of work by the American abstract-sculptor, William Bowie.

Original, signed and numbered works of graphic art normally handled by the gallery include examples by Marc Chagall, Johnny Friedlaender, Pablo Picasso, Salvador Dali and other noted French, American and English artists.

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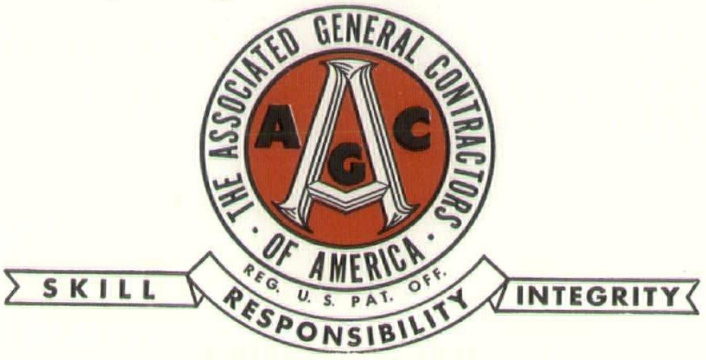

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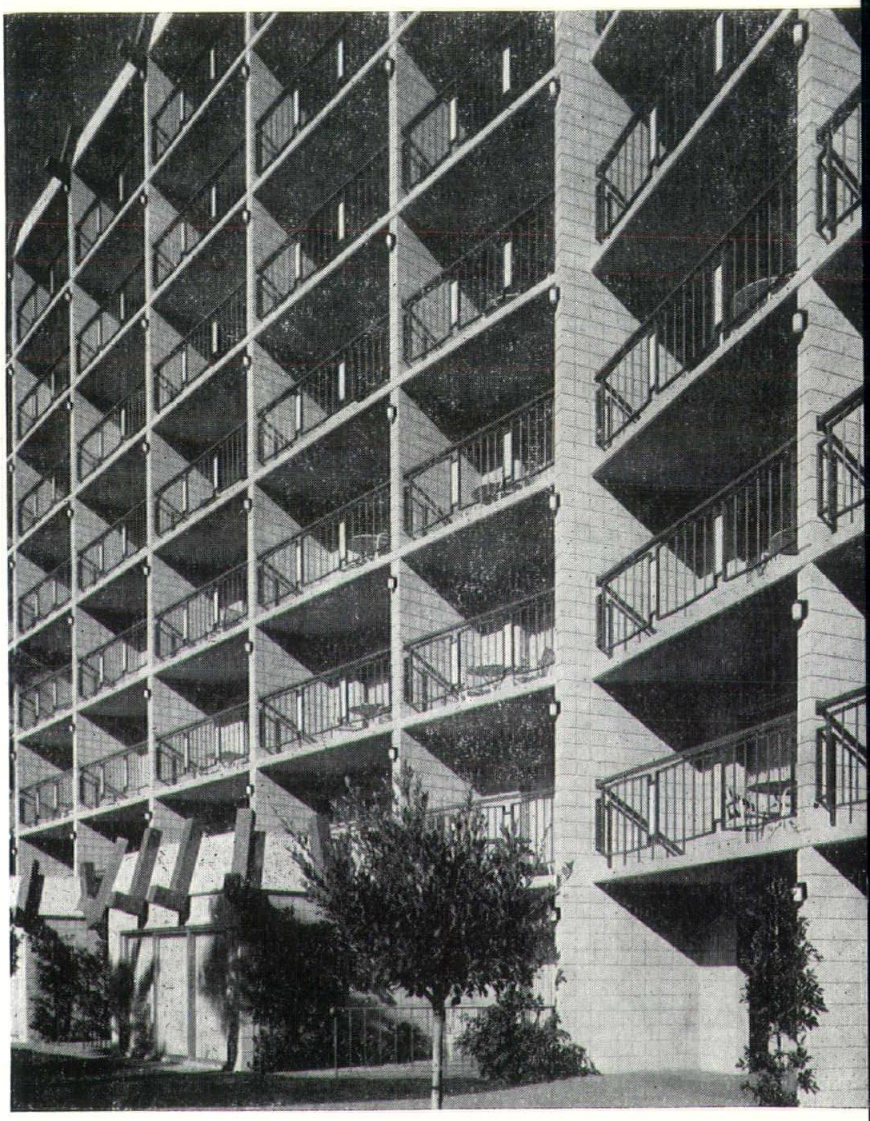

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