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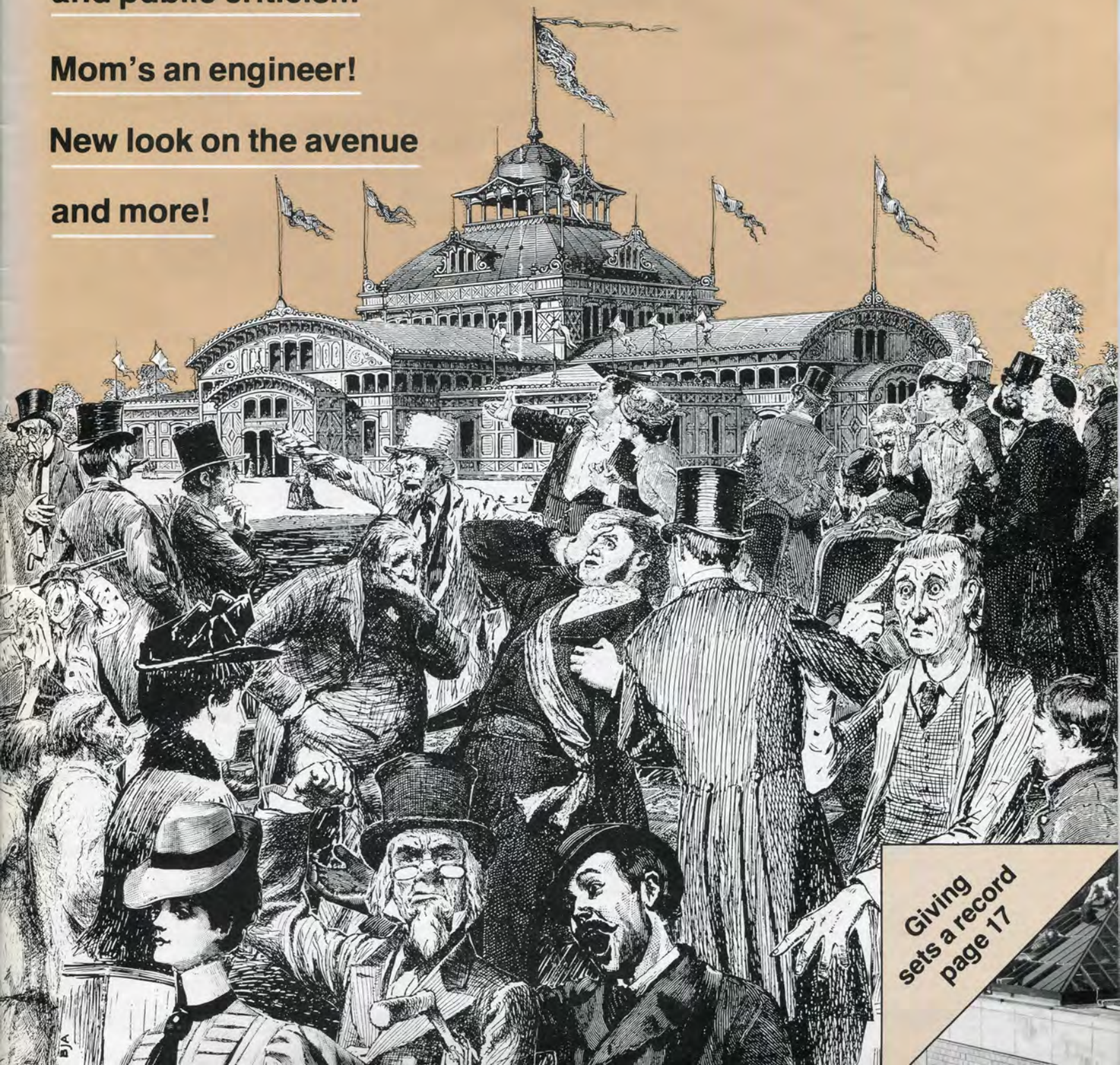
Autumn, 1981

Architecture
and public criticism

Mom's an engineer!

New look on the avenue

and more!



Giving
sets a record
page 17

Autumn 1981
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College mourns death of Wayne H. Buell

As this issue of the *LIT Magazine* was being printed, we sadly learned that the College's chairman of the board and chief executive officer, Wayne H. Buell, ChE'36, had passed away.

Although he was diagnosed as having cancer nearly a year ago, Dr. Buell characteristically pressed forward and continued his active involvement in College operations until his death on October 10.

His long association and tremendous impact on Lawrence Institute of Technology will be highlighted in the next issue of the *LIT Magazine*. We'll also take a special look ahead with Dr. Richard E. Marburger, who became Dr. Buell's successor as president in 1977, and who has now been elected by the board of trustees to take on the additional responsibilities of chairman and chief executive officer.

A handwritten signature in cursive script that reads "Bruce Annett".

Bruce J. Annett, Jr.
Director of Public
and Alumni Relations;
Editor, *LIT Magazine*



Even camels have had to adjust to the fast pace of technology. A familiar sight as past and present merge in strange ways, a Bedouin's

pickup truck now provides transportation between wandering herds of livestock.

Our man in Saudi Arabia

Alumnus Bill Moylan helps ease the clash of tradition and technology in a kingdom carefully embracing the industrial age

Find a desert nomad with a tent pole that doubles as a TV antenna and, chances are, Bill Moylan, CE'74, won't be too far away.

Bill, a project engineer with the Arabian American Oil Company (Aramco), has spent most of the last seven years in Saudi Arabia, a country of contrasts. Nomadic shepherds now transport their camels across the desert in imported trucks instead of walking as they have for thousands of years. In recent years, the Saudis have found themselves necessarily caught between the old and the new, which often results in a startling mixing of two cultural worlds in an attempt to cope with advancing technology. Bill laughs as he remembers one of the most graphic examples of this cultural synthesis.

"A friend and I were riding outside of the Aramco compound when we came across a Bedouin's tent," he relates. "We stopped to say hello, and in the process of talking with him, he found out that we were engineers. Right away, he asked if we could fix his truck and we agreed to take a look at it.

"We found that the battery was dead

and using what language we knew we tried to explain," he continues. "When we finally pointed to the battery, he smiled and nodded his head saying, 'day-co, day-co.' We suddenly realized that he was saying 'Delco' and that he must have been watching American television commercials. When we questioned him about it, he took us into his tent, threw back one of the rugs and there was a Sony Trinitron Home Entertainment Center. He raised the main tent pole which was also an antenna and we sat down with him on the carpets to watch the Saudi Philharmonic."

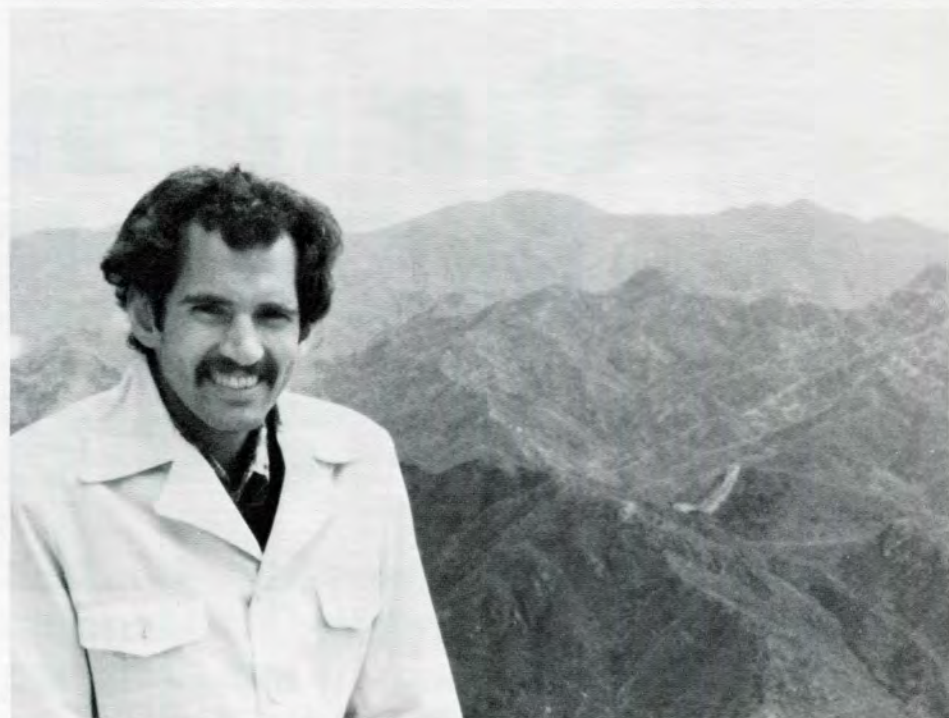
According to Bill, it's not strange to see such anachronisms as the Saudi people adjust to a new way of life in a country that is suffering from an acute case of "future shock" caused by its sudden oil wealth. Because of this, the government of Saudi Arabia is doing all it can to help its people advance with the changing times.

"The Saudis are making great strides in a very short period of time," Bill relates. "The government is endeavoring to share the wealth with its people through interest-free home loans, free health care and education for all young people."

Although the Saudi government announced in January a 100 percent takeover of Aramco's producing assets, Aramco is still tasked with managing Saudi Arabia's mammoth oil and gas reserves. This includes the direct exploration, development and production of oil and gas, as well as managing the total engineering, procurement and construction process.

"Because of the stark lack of a local infrastructure in many of the operating areas, Aramco must also develop total self-contained communities to support the production and maintenance effort—roads, homes, shops, retail commissaries, hospitals, recreation facilities, etc. Moreover, Aramco is deeply involved in local industrial development. In some ways, Aramco seems to be operating as the HEW department in the Eastern Province," says Bill.

The community at Dhahran, where Bill is headquartered, is much like a suburb of Houston—air-conditioned homes, libraries, golf courses (on oiled sand), educational facilities, organized sports teams, movie theatres, swimming pools, racquetball and tennis courts, and anything else they might need to feel at home. Also close by is the Arabian Gulf (the "Persian Gulf" to the Western world) which affords excellent sailing, fishing and scuba diving. A desert utopia? Hardly.



Top: The ninth hole of the Aramco course at Dhahran. Bill and his friends can play on brown "greens" of packed and oiled sand. One can imagine the sand traps. Above: Bill visits China's Great Wall—one of several stops he's made on his way home to Detroit for his annual six week vacation.

Moylan photo



Robert Azzi photo—Woodfin Camp and Associates



Moylan Photo

One of Bill's latest projects was the construction management of an off-shore gas-oil separator plant in the Arabian (Persian) Gulf.

"The Saudis are Moslems and live by strict religious codes," Bill notes. "What we Americans consider to be our God-given rights to whoop it up, the Saudis view as Western decadence." Public consumption of alcoholic beverages is forbidden and they do not condone night-clubs, gambling or theatres in their communities. Saudi Arabian justice, though strict, is basically fair, certainly swift, and uniformly applied. What isn't generally known, nor fully appreciated, is that crime

'Situations arise where values and ethics clash.'

in Saudi Arabia is nearly nonexistent.

"Also," Bill continues, "the opportunities for local travel are somewhat limited. Although Saudi Arabia is about two-thirds the size of the United States, its population is only about that of Southeastern Michigan. Much of the country is arid desert. So, even though gasoline is only 31¢ a gallon, besides the village souks, local restaurants, or desert camping, there's not much to visit."

Aramco does provide benefits

outside of the higher salaries, however, that make continued employment appealing to Bill and others like him. Each staff member is given six weeks vacation each year and the price of a round-trip airplane ticket home.

"You can apportion the money any way you like," he notes, "so you can visit a lot of different places, traveling around the world before returning to Saudi Arabia. Also, the other holidays we have off during the year can be used in conjunction with a weekend, so travel to other countries near Saudi such as Greece or India is possible.

"For me, the educational benefits are also a plus," he adds. "Aramco sponsored my year and a half of advanced degree study in project management at Massachusetts Institute of Technology. The company believes in developing its own management from within."

Bill joined Aramco in June, 1974, after answering an ad in the *Engineering News-Record* during his senior year at LIT. After being interviewed in Chicago, he was offered and accepted a position in

Saudi Arabia.

"Aramco made 19 offers to college seniors that year and 13 accepted," he states. "The company continued to hire new American engineering graduates until recently. Still, opportunities abound for just about every engineering discipline and technician with professional experience.

"We are teaching the Saudis how to manage and run everything connected with oil production," he goes on, "as well as training them in all kinds of affiliated professions and services. Aramco contracts almost exclusively with local firms for all of the construction work. A family which starts off with little better than a wheelbarrow and an elementary knowledge of building techniques can grow into a major construction company, with Aramco assistance."

Dealing with the Saudis everyday has given Bill an insight as to what the Arabian people are really like.

"**They are a proud people,**" he says, "but they are also friendly, warm, and hospitable. If you treat them fairly and courteously, they respond well. The Saudis value loyalty, being wary of 'fly by night' operations. There is an entirely different cultural value system at work in Saudi Arabia and you must empathize with it in order to deal with the people. 'Backh-sheesh' ('tips'), for instance, is an Arab tradition that is at odds with both accepted American business ethics and company policy. Situations arise where values and ethics clash. One must learn empathy, develop patience, and foster a sense of humor to survive."

All in all, however, Bill enjoys his work and believes that the situation reported between Arabs and Americans is distorted by the media.

"While in the States," he says, "I read a lot about the trouble in the Arab world which would make anyone somewhat apprehensive about returning or going there for the first time. On the other hand, Detroit, my home town, is regularly reported to be full of murderers and robbers. One finds that you can't believe everything without first checking it out for yourself first hand."

It is exactly this independent spirit that originally led Bill halfway around the world, and it is the same adventurous style that kept him there after the one year trial period which he gave himself. Bill is currently the lead project engineer on an offshore gas-oil-separator-plant ("GOSP") and there seems little doubt that he will be representing LIT in that far away land for several years to come. □

Architecture and public criticism

An LIT-hosted symposium explores why architecture might benefit from informed public scrutiny



“Architecture and Public Criticism” was the topic explored April 10 and 11 when more than 200 participants attended a special symposium hosted by LIT’s School of Architecture, sponsored by the East Central Region of the Association of Collegiate Schools of Architecture, and chaired by Robert Benson, associate professor.

“Many believe, and I think rightly so, that public and professional ‘taste’ is heavily influenced by what people are exposed to through media—newspapers, television, magazines, film, or books,” said Prof. Benson. “This symposium explored these phenomena as they relate to architecture, as well as the history and philosophy of criticism, and how public or professional taste and expectations can be enhanced by thoughtful consideration of the built environment. In addition, the influences of institutions like museums, and the teaching of critical thinking were analyzed.

“Because individual structures and developments often become ‘public’ once they’re opened (even if they’re built with private capital), we also discussed how critical input by impartial parties might positively influence a project still in the design stage,” he added.

More than twenty papers on public criticism were presented by faculty and students representing architectural colleges from across the nation. A highlight of the symposium was a panel discussion which included David Lawrence, executive editor of the *Detroit Free Press*, William Giles, editor of the *Detroit News*, Robert Woodruff, executive producer with WXYZ-TV, Ed Bacon, urban planner and visiting professor of architecture, and architectural critics Paul Gapp of the *Chicago Tribune* and Jayne

Merkel of the Cincinnati *Enquirer*. Following are excerpts from Paul Gapp’s keynote address as well as excerpts of the free-wheeling panel discussion which followed.

A ‘critical’ defense

by Paul Gapp

“... around none of the arts—with the possible exception of dry-fly fishing and 12-tone music—has so formidable a mystique been woven as that which befalls architecture.

“From Ruskin onward, architectural writers have not hesitated to cover a variety of moral and sociological themes for which the pretext was neither immediately nor subsequently obvious.

“These writers have also isolated architecture from the rest of human experience and thus rendered it for the ordinary reader as remote and incomprehensible as the quantum theory.”

—Osbert Lancaster
English satirist and writer

And so we are moved to think about a couple of important points: Number one: We’re not getting *enough* architectural criticism in the mass media. Number two: A lot of architectural writing is as opaque as a slab of marble.

Now, so far as volume is concerned,

the picture is not quite as bleak as it was 10 or 15 years ago.

We all know the work of Paul Goldberger and Ada Louise Huxtable in New York. Perhaps many of you are familiar with the work of John Dreyfuss at the Los Angeles *Times*, Robert Campbell of the Boston *Globe*, Alan Temko in San Francisco, and a few other writers for major newspapers.

But in addition to high-profile architecture critics, we’re also beginning to see smaller newspapers getting into the game.

I’m not sure that we can call this a real trend toward more coverage. There are still millions of newspaper readers who get no architectural commentary whatsoever. But maybe we are seeing the beginnings of a journalistic awakening.

The trouble is that most newspaper editors perceive architecture as an esoteric subject. Somebody has to sell them on the notion of covering it.

There’s another peculiarity about this situation. Some editors apparently have feelings about the importance of architecture in their communities, but believe they have to go out of town to find critical expertise.

A few years ago, for example, the Cleveland *Plain Dealer* brought in Ada Louise Huxtable to take a look at Cleveland architecture and write about it. That exercise resulted in some highly readable copy, particularly in a city that suffers from an inferiority complex. But the *Plain Dealer* never followed up on that. And surely there are people in Cleveland qualified to serve as locally based critics.



Not long ago, the editor of a newspaper in another large Midwestern city asked *me* to come in for a week and do a similar appraisal. I had to turn that down because of other commitments. But I spent about a half an hour on the phone trying to convince the editor he should consider hiring a local critic, instead of just doing a one-shot series.

But what about the broadcast media—particularly television? What are they doing with architecture?

At the level of local broadcasting stations, the coverage is usually infrequent and rather uniformly bad.

I'll never forget the first local television show on architecture in which I participated some years ago. My conferees were three highly distinguished Chicago architects. Afterward, we all agreed that the show was a catastrophe, mostly because of an incredibly inept moderator. But maybe it didn't make any difference, because the program was taped and broadcast at 6 o'clock on a Sunday morning.

I also have nightmarish memories of a Chicago architecture critic who used to do a weekly radio critique that ran for 90 seconds. He had to talk so fast that he sounded like Walter Winchell, and the whole thing was totally idiotic.

It seems to me that local television stations, as well as local newspapers, should be...giving their viewers and readers credible architectural commentary on a regularly scheduled basis. It may not always be simple to find critics with adequate credentials. But I believe there are ways of solving this problem, and I don't think it has to cost an

exorbitant amount of money....

Leaving the broadcast media aside, I would now like to return to print journalism and concentrate on the role of the press.... It seems to me that the concerns of the newspaper critic run parallel with

those of the practicing architect in many respects.

Neither can afford to perceive a work of architecture as though it existed in a vacuum, apart from the existing urban fabric. Neither can afford to forget that virtually *every* building is a *public* building, from the standpoint of the users and rest of us who are obliged to look at it.

The critic who ignores these things is probably going to wind up turning out a

From the panel: public interest or special interests: who is served?

William Giles, editor, Detroit News:

There is a very basic question which comes to me from the editor's point of view. Essentially, who needs architectural criticism and why, from an architect's point of view, do you want it? You want the newspaper to devote a specialist to do a "beat" job (and it's a superior "beat" job, not just a geographic one). I'm curious about the motives of the architectural fraternity for wanting that. Is it really because so much of your work is done in the public arena these days and you need to influence public policy, and therefore, need to use the newspaper? From my own point of view—a selfish point of view—I

have people coming to me each day saying we don't cover certain areas, geographic or aesthetic or anything else (and I say), 'Why should I?'

Robert A. Benson, associate professor of architecture: Doesn't the success of certain critical campaigns that have been alluded to or discussed this morning, in any way incite you to feel that somehow a newspaper or TV station could make a major contribution to public welfare through criticism?

Bill Giles: Well, I'm not sure since the profession says that it's not really useful except on the negative side. They use three-dimensional communication and try to structure it the

lot of ivory tower punditry that won't mean anything to most of his readers. The architect who ignores these things is usually on a big ego trip.

One of the concerns of this symposium is to explore the role of criticism as a determinant of public policy. Let me immediately say that I do believe an architecture critic can exert influence in the public sector.

But I do not believe a critic can make maximum use of his media power unless he takes a very broad-based approach to his subject.

Specifically, that means understanding and often writing about such things as zoning regulations, FAR's, municipal design incentives, city planning, land

economics, construction costs, building codes, the real estate community, and politics.

Architects must concern themselves about all of these things. And so must the critics. Because these are things that impose difficult constraints on architects, or perhaps offer them liberties which are not in the best interest of the public. They exert a profound effect on the visual character of a city.

Now of course, on a large newspaper, there are city hall reporters and perhaps urban affairs reporters who write about many of these subjects. But they usually have neither the time, the expertise, nor the inclination to analyze such matters from the standpoint of urban design and

architecture. And the same thing goes for editorial page writers.

The critic can thus fill this vacuum for the good of the public and of the profession of architecture. He can analyze, criticize, exhort, condemn or praise. He can do this on his own. Or he can be supportive of reforms that have already been undertaken by others.

And if the critic has established his credibility, in terms of comprehension and accuracy, he can surely influence public policy.

This kind of influence is often difficult to measure, I must admit. It rarely makes itself felt with a spectacular bang.

Usually, it is the kind of influence that occurs incrementally. You just keep

Panel discussion continued

way they want it structured. I understand the value of participation in public decisions, but in architecture there is a certain feeling of "*fait accompli*" on the part of most people looking at a building standing there, or even if they're looking at a design. It's a very esoteric business and now you're asking me in a newspaper to make a big issue of this when there are a lot of other big issues to be handled by a daily newspaper. I say, "For what?" You've got to persuade me—if you're serious about wanting it.

Paul Gapp, architectural critic,

Chicago Tribune: I love to argue with editors.

Bill Giles: That's what editors are for, for God's sake.

Paul Gapp: First of all, it must be made "non-esoteric." If it isn't, you're wasting your time. And, it can't be just post-facto. What in our trade we often call anticipatory reporting, has to be done and part of that can be done by the architecture or urban design editor getting way ahead of the fact, and

saying, 'What's going on here? Is there a plan for this area? Is anybody thinking about what's laying down the road a piece?' That's terribly important and that doesn't even have to get into the realm of criticism at all. Anticipatory reporting can be "done straight" as we say in the business—no opinion, simply an exposition of what the problems are and what people think about them, etc.—terribly important stuff.

Ed Bacon, urban planner and visiting professor of architecture: I do



Robert Woodruff, executive producer with WXYZ-TV and David Lawrence, executive editor of the Detroit Free Press.



Robert Benson, associate professor of architecture, and Edmund Bacon, urban

pounding away at a subject, and hoping that your message gets through to the official policy makers.

But there is no doubt that politicians are especially sensitive to what appears in the press. And so are other governmental decision-makers. These people have a great deal of power over the quality of the built environment.

I do not mean to imply that the mission of the critic is to take a consistently negative role—or merely to tilt his lance at whatever seems to be wrong. It is also important to be supportive of public sector decisions that deserve praise.

Chicago has architecture and urban

affairs critics who do not have to pull their punches. I enjoy carte blanche at the *Tribune*.... Similar freedom is enjoyed by writers at the Chicago *Sun-Times*. We don't have to worry about pressure exerted on our editors by the local power elite, or by advertisers. We have credibility and we have clout.

But there aren't too many other cities where this situation exists. Most American cities are one-newspaper towns. More often than not, these dailies are owned by absentee newspaper chains that don't like to rock the boat. To make matters worse, most of these newspapers don't have critics equipped to deliver any evaluations of urban design. That's very disheartening.

As I see it, we critics have an opportunity to report and analyze architectural news of all sorts. Some of this news would not be reported as well without the benefit of architectural expertise. And some of it would not be reported at all.

Under the heading of architectural news, we have such obvious things as exhibits, lectures, seminars, competitions, and so on. But as an architectural reporter, I have also covered some rather extraordinary things.

When a former governor of Illinois was shaking down architects for political campaign contributions, I found out about it and the news was printed on page one. Immediately afterward, the shakedowns

think that the newspaper can do a tremendous service to the long-range future quality of cities and buildings by being receptive to concepts that come—from whatever source—which give a new image of what the city might become. Paul's done a great deal of that in Chicago, by bringing in outside people and so forth.

Dave Lawrence (as editor of the *Philadelphia Inquirer*) deliberately structured the idea of the paper, itself, taking the initiative to visualize the city in the year 2000. This resulted in a great deal of con-

ceptual input which, I think, became very important. And my real thought is that the receptivity of the whole structure of the newspaper to long-range visions is very important and can become very influential.

Audience: One thing that really jumped out to me in Paul's speech was the insistence that architecture is a public matter. I think that we are just coming out of the period where people thought that architecture was a private matter. They felt that building owners had a right to "do

their own thing" and their right was supported by the fact that they were the ones that had an economic stake in the building and its site and they were the only people who needed to worry about that. We are coming out of a stage when streets and public squares had almost disappeared and our cities were really just a bunch of buildings surrounded by cars and high speed roads to get to them. What we're now getting, and I'm sure that critics like Paul and Jane are playing a major role in this, is a new awareness that the city is a public place—



Cattermole photo

planner and LIT visiting professor.



Cattermole photo

Jayne Merkel, critic for the Cincinnati Enquirer, Paul Gapp, critic for the Chicago Tribune, and William Giles, editor of the Detroit News.

stopped. Well, at least temporarily.

One more example: Three years ago, Chicago suffered one of the worst snowfalls in its history. Suddenly, roofs piled high with snow began collapsing all over the place. But what stirred up public interest was the fact that some of the roofs were on recently constructed buildings. I began to hear a lot of public rumbling about slipshod architecture.

What I did in that instance was to talk to highly respected structural engineers and

develop an article on the subject. I pointed out that you simply don't design roofs to withstand freak snowloads that might occur once every century. It was not an overly defensive story. But by publishing facts, I was able to counteract the unfair notion that architects and engineers are responsible for everything including acts of God.

When I think about the formation of

taste, the first thing I think about is clarity of communication. I think about that quotation from Osbert Lancaster, and making architecture as incomprehensible as the quantum theory. Because too often, that's what happens.

If the reader doesn't understand what you're saying, your influence is obviously going to be nil.

I do assume a reasonable level of intel-

Panel discussion continued

that there are public realms in the city that should be the concern of the public and anything that is in the public realm is, surely, grist for the mill of the media.

I suspect that it is perhaps not unusual that in Detroit, which is a city that still, on the whole, doesn't have any public realms worth having—though they are beginning to reappear in various spots around the city—that we still have an editor who can say, 'Well, why do you want it?'

Bill Giles: The question is essentially one of motives. I'm always suspicious of motives. You tell me that there is an emergence of architecture as a public matter and I know that, especially where public money is concerned. But, I'm still very interested in why the profession—why architects—have suddenly discovered that it's good to go public.

Audience: Architects are only just realizing that there must be a channeling of forces outside of the profession. The money has to be out there, the public must be out there. We as architects do not make buildings happen, outside forces do. We want to understand those forces and we want to help the forces so they can make intelligent decisions. So, it is absolutely vital that there be public debate.

Dave Lawrence, executive editor, Detroit Free Press: We have a special problem and let me see if I

can expand on a point that Paul Gapp made earlier. He talked about, as I recall, a project in Chicago in which the people in the city room of his newspaper were feverishly wanting to know what he thought of it, and then, subsequent to his piece appearing, the same group was saying 'Boy, this is really going to be a great building.' What you have is enormous problems of ignorance, I think.

You won't find newspapers with any self-respect that don't have movie reviews or drama criticism or that don't have a television critic because, of course we all go to those sorts of things or see those sorts of things. But we really don't know—I think most of us—what to think about—let us use as an example—the Renaissance Center.

I can tell you that a lot of people have quoted to me, upon my coming to town here two and a half years ago, what Wolf Von Eckhardt said of the Renaissance Center and whether it is "fortress America" and all the symbolism, etc. But I would suggest that editors are essentially lay people with a bit of information about lots of subjects but not a heck of a lot of expertise in any particular subject.

When you take architecture, it requires a considerable amount of education to have any enormous degree of familiarity with it. Frankly most of us in this country, (and it doesn't have to do with being an editor or even being in the media,) simply are concerned that we don't know enough to have any comment upon it, and that's the human nature problem.

Paul Gapp: There seems to be a suspicion on the part of some folks here, about what these architectural birds are up to. Are they trying to get space in the newspaper? What's their professional posture and what sort of ax do they have to grind? Certainly, in a preliminary stage these are valid questions to raise. But, the fact is that architects as a professional group are the greatest shrinking violets in the world. They simply do not make themselves heard as often as they should. The sum total of their influence is to send news releases out of the AIA or the Octagon in Washington. I am constantly exhorting them in print to become more active in the local chapter, state and national level on things that go beyond Betts and all that stuff. Because of the way architects are, and because of the ethical constraints, some of which have recently been loosened by the AIA, they really do a very poor job. In fact, they don't do any job at all of trying to influence anyone as a professional group whether its the AIA, SARA, or whatever. They're certainly not an evil bunch, but they are one of the most badly organized bunch of professionals in the world.

Jayne Merkel, architectural critic, Cincinnati Enquirer: You are asking a great deal of a newspaper that people read casually and occasionally (if you want it to act as a medium to purely educate). Writing is most effective when it teaches you something that you already knew. It sort of points out or calls your attention to something you were already thinking. Given the

ligence among my readers. I would rather take the risk of writing up to them instead of being patronizing.

On the other hand, I am conscious of the fact that my audience does include many architects. And one way or another, I must maintain my credibility among them.

Another decision that must be commonly made is whether to write about a building before it is constructed, or afterward, or both. I have no fixed policy

way people read newspapers and the amount of space we have, I think we're usually most effective just igniting the sort of quick recognition that was really already there.

People are in buildings all the time and they're not so ignorant as we think. But, sometimes just the focus on the existence of something makes them aware. Mr. Giles keeps asking 'Why should we do it?' Probably all of us that are writing have been retained because we've been able to inform and entertain. My editors are always saying 'Make it interesting' more than informative. Unless you can get a reader interested, you've lost him. I think you do that most by catching on to something which he already senses as a possibility.

Bob Benson: In thinking about the nature of this symposium, I've had to ask myself many times: What do we expect from it? What is the reason for having it? What does it intend to do? And, the one thing that I am convinced that we can expect is that there will be no definite answers to any questions that are raised. If we go about it not looking for definite answers, then I think we will expect to generate lots of ideas, and I hope a lot of controversy. I don't expect fist fights, but I certainly don't want to assume that we all think the same way. Perhaps out of that then new attitudes will begin to emerge by means of which we can reassess the field of criticism itself and the relationship that each of us as an individual has to it. □



Paul Gapp of the Chicago Tribune was awarded the 1979 Pulitzer Prize for criticism.

on this. My decision depends mostly on how important the building appears to be, and how high its public visibility will be.

I'm going to conclude by zeroing in more precisely on the formation of taste through criticism.

First, let's consider public taste.

Criticism in the mass media sometimes obviously reinforces existing likes and dislikes arrived at by the public. If you don't know much about architecture, it feels good to have a critic recite expert reasons for intuitive judgments that you've already made. The mail I get from non-architects certainly reflects this.

Criticism can also strengthen tentative judgments made by a public that is timid about expressing itself. This applies particularly to buildings that depart from design orthodoxy, or that don't send out signals that are familiar to the public.

Let me give you a case in point. When the renderings of Helmut Jahn's extraordinary new State of Illinois building were first made public, people on the *Tribune* staff were terribly curious to know what I thought about it. I also noticed they were extremely reluctant about expressing their own opinions—even in informal conversation.

But immediately after my first and very positive piece about Jahn's building was published, the same staff members went out of their way to tell me they thought the building would be a smashing success.

Now I concede that this is hardly a scientific sampling of public reaction. But it helps illustrate my point. I should add that the reader mail I received about the building also reflected this attitude. And that's not to mention the sighs of relief by state officials who went out on a limb when they accepted the Jahn design.

Another way to influence public taste is not to write about a building at all. Not critiquing a building is a way of denying it a certain sense of aesthetic certification.

Down through the years, we've seen this same process at work in the writing of scholarly architecture books. Writers tend to base some of their work on other texts. And so silence about a work of architecture is frequently self-perpetuating.

I see my most important mission as giving the public a new set of eyes and a new array of sensibilities with which to observe the built environment. In that way, I would hope they might make better informed and more insightful judgments of their own.

How much influence does the mass media critic exert on professional taste?

I am almost tempted to say that mass media criticism exerts *no* influence on professional taste. By that, I mean no direct influence on architects themselves. But I prefer to look at this in a different

way. The question I ask myself is whether media criticism can help create a climate conducive to better architecture. And I believe that it can.

I think owners are susceptible to the influence of critics—owners in both the private and public sectors.

The owners have egos, after all. They have strong feelings about their corporate or institutional images. And even the schlockiest real estate speculator wants the kind of favorable press that will help him sell or lease out his space.

Most owners like to play it safe. If a design worked well once, it will work again. If it was marketable once, it will be marketable again. If the university trustees liked it once, they'll like it again. And so we get cookie cutter architecture. We see a stultification of architectural innovation and creativity. We see a failure to solve problems. And the users and other members of the public get lost in the shuffle.

But the critics *can* make a difference, particularly at a time when architectural pluralism has begun to make some headway. And at a time when concerns about energy and preservation and humane design have taken on a sharper edge.

The critics, it seems to me, can be the architects' best friends in this regard.

Their calls for beauty and contextual respect and all the rest can only raise the level of things among members of the public, and among the owners who want public acceptance.

This can only help architects who are striving to meet the manifold goals of good architecture. □

About Paul Gapp

Paul Gapp, winner of the 1979 Pulitzer Prize for criticism, is architecture critic for the Chicago Tribune.

Before joining the Tribune in 1972 as assistant city editor for urban affairs, Gapp served as executive director of the Chicago Chapter and Illinois Council of The American Institute of Architects. He also had worked as an urban affairs reporter, editorial page writer, and woman's editor for the Chicago Daily News. He is a two-time winner of the Illinois Associated Press award for best spot news reporting.

Gapp has written numerous articles on architecture and urban planning for professional journals, as well as for the Tribune, and is a contributing editor to Inland Architect Magazine. He is an honorary member of the Architects Club of Chicago, and a member of the board of directors of the National Building Museum in Washington, D.C.



Bizon photo

The LIT Tie

Just arrived in time for holiday gift giving — official Lawrence Institute of Technology neckties sporting the College seal in white on a dark navy blue background. These high quality silk/polyester ties, in a classic club pattern, are available by mail from the LIT Bookstore for just \$10.50, including postage and handling.

Send check or money order (made payable to "Lawrence Tech Bookstore") to LIT Bookstore, 21000 West Ten Mile Road, Southfield, MI 48075. Allow 3 weeks for delivery. Visit the Bookstore personally and view the wide variety of other gift items available. A 10% discount on many items is offered to Alumni Association members presenting current membership cards.



Bizon photo

The LIT Pen

The perfect gift for Christmas, graduation, birthday or other special occasions is a pen or pencil with the LIT seal.

Cross chrome pen	\$15.00
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Bradley gold desk set (single pen)	
Walnut base with seal	\$40.00
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Mom's an engineer!

Times, they are a changin'. We live in a world of the vanishing stereotype

Tell Randy Ernst of Sterling Heights that his mother can't work on blueprints because she's a woman, and you're in for a real fight.

Randy's mother, Linda Lewis-Ernst, 35, a June graduate of Lawrence Institute of Technology's construction engineering program, smiles as she remembers her child's first encounter with sexual discrimination.

"It seems that the teacher in Randy's sixth grade class was showing the children a set of blueprints," she relates. "Randy had seen me working on them as a homework assignment and so he stated 'My mom draws those.' One little girl quickly said 'Your mom can't do that—only men draw those kind of drawings.'

"When I came home from school that day," Linda continues, "Randy asked me to give him one of my blueprints to show the class that ladies *could* do them as well as men. 'And,' he added as an afterthought, 'make it one you got an A on.'"

Linda has become used to problems that a woman can encounter when she is pioneering in a man's field. But, as she prepares to enter the job market, she has learned that her chances for success are really a matter of how hard she works toward her goals.

In 1971, Linda began her long years at school, trying to make up for an education which she was denied earlier, by entering Macomb County Community College. She enrolled in the engineering design technology program because, at that time, she was interested in architectural drafting.

"I was a legal secretary before I married," she noted, "but I wanted to do



Cattemole photo

Stereotype-buster Linda Lewis-Ernst has met her goal of graduating from college before her son graduated from high school.

something different. As a child I had always been involved with boy's games and hobbies like cowboys and indians and working at my father's workbench to make model homes. Often I would sit sketching three-dimensional pictures of what a house should look like but it was only at home that I was given a chance to really express my own interests.

"I got no encouragement in high school," she continues, "because back then women just didn't think about doing those sorts of things. When I really wanted to take drafting or wood shop, I was made to sew and cook like the other girls in home economics. There just was very little opportunity for women who didn't 'fit the mold' twenty years ago."

It was not until she had married, had three children, and then gone through a divorce, that Linda finally decided that she had as much right as men to enter technical fields. The decision was not always an easy one to carry out, though.

"When I signed up for my first drafting class at MCCC, I was very nervous," she remembers. "I knew that I would be the only woman in the class so I went very early and got a seat in the last row, hoping that I wouldn't be noticed.

"I remember when we got our first test

back in drafting," she relates. "The teacher put the grade scale on the board, showing us the highest and lowest marks students had scored on the exam. I was sure that mine must be the lowest so I prepared myself for the disappointment.

"When he started to hand them back, though," she continues, "he began with the highest paper first and laid it on my desk. I was so afraid of looking 'different' that I quickly turned it over so that no one, including myself, could see the grade."

Linda continued to shine at MCCC and finally her hard work paid off as she graduated with an associates degree and honors in 1977. She immediately made plans to transfer to LIT and began in the architecture program that fall. Once there, a whole new world opened up for her.

"I found out that there were many more career choices open to me than I had ever realized," she recalls. "I was introduced to such areas as construction engineering where I could use both my design and building skills and where the chances for employment were exceptional. After about a year, I decided to take the plunge and transferred into the program."

When Linda began studying construction engineering in the fall of 1979,

'Women in my neighborhood would tell me... what I was doing was 'silly' even though they didn't know... what I was studying.'

she was one of only six women in the program. She had been concerned that her gender would make her stand out at a college like LIT, but she soon realized that age, like sex, is really no obstacle unless you allow it to be.



Cattermole photo



Left and above: Eric was an annual visitor to LIT as Linda wanted him to see how she spent her days.

"I have always been treated as just another student by my fellow classmates," she notes, "once they realized that I wasn't looking for special treatment and that I wasn't afraid of hard work or getting dirty. It was clear that we were all after the same goal and it made much more sense for us to help each other instead of being divided by artificial barriers.

"Sometimes," she laughs, "one of the professors would tell an off-color joke, forgetting that I was there and immediately turn red and apologize when he realized what he had done. Now, though, they're used to it and the women in the program (27 this year) have blended in and become just 'like one of the guys.'"

All of the time Linda was striving after her own goals, she was also a single parent raising three children, Randy now 15, Cheryl now 12, and Eric now 10. She would see the children off in the morning, come home after a hard day at school, make dinner, and then the whole family would "hit the books."

How did the children take to this "non-traditional mom" role? According to Linda, they have adjusted well.

"They always thought it was neat to have mom doing homework with them," she relates, "and whenever we would

pass a construction site and see men with hard hats, they would all point and say 'that's what mom wants to be.'

"There were times, though," she sighs, "when things weren't all that easy. For instance, it wasn't so neat to have a mom in school when she had to study for a test on the night you needed picking up or driving to some activity or other. Then, and at similar times when I was busy elsewhere, I guess they wished, if only for a moment, that I didn't have to do any work except take care of their needs."

Equally difficult during the years of study were finances. Linda did well in college and so she applied "for every scholarship she could think of" and took each semester "one at a time," never knowing if she would be able to finish out the year. The first year she received a full two year scholarship from LIT, but it was only when her senior year was financed by two scholarships, one from the national Business and Professional Women's organization (BPW) and another from the Women in Construction (WIC), that Linda could breathe a sigh of relief and know that her problems were finally over.

Organizations such as the ones which awarded her a scholarship are extremely important, according to Linda, as they strengthen and provide support for women who have the courage to try new and traditionally male roles.

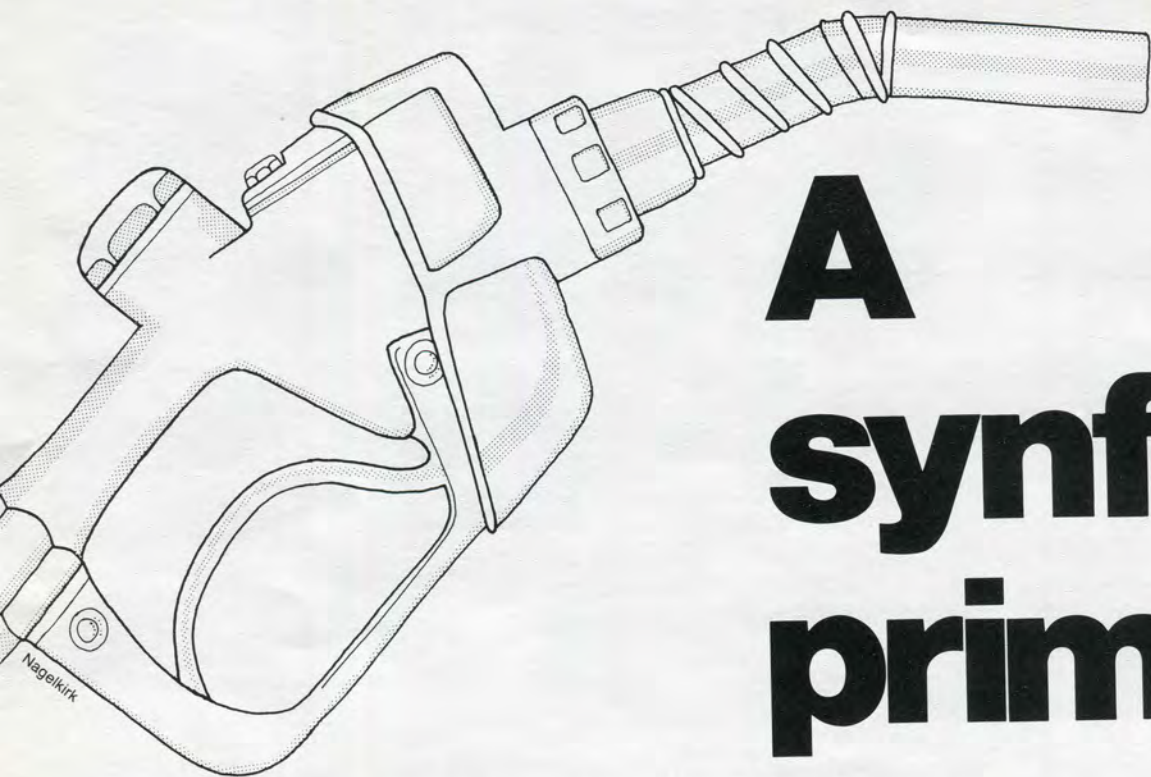
"We have started a Society of Women

Engineers (SWE) chapter at LIT and I think that's terrific," she notes. "Now women will have a chance to have their goals reinforced rather than having to 'go it alone.'

"You know, sometimes I'd feel guilty because I wasn't there when my children came home from school," she goes on, "and often women in my neighborhood would tell me that they thought what I was doing was 'silly' even though they didn't know anything about what I was studying. It was at times like these that I had to be strong and realize that maybe the women were jealous because they didn't have the courage to do it themselves. I told myself that it was not wrong to pursue my own goals just because I was a mother and not a father, and that it was good for the children to learn to stand on their own. Now, instead of having to handle it by themselves, women can turn to each other for support and help."

When Linda graduated this year in June, she was one of only three women receiving their degrees in construction engineering. But, that is not all. She also had the pride of graduating in the top quarter of her class—not bad for a woman who, only ten years earlier, had silently crept in early to drafting class to avoid detection.

"I have been going to school as long as my children have," she notes, "and I always had one dream—to graduate from college before my son graduated from high school. I finally did it!" □



A synfuel primer

Coal? Oil shale? Tar sands? Alcohol? Hydrogen? An energy researcher looks at transportation fuel in the 80's.

By Harold J. Gibson

The energy industry in the United States is very large. Total U.S. energy use from all sources in 1980 was the equivalent of about 37 million barrels (1 barrel = 42 U.S. gallons) of crude oil per day, divided about as follows:

oil and other petroleum liquids	40%	17 million bbl
coal	22%	2 million tons
natural gas	30%	55 billion cu ft
other (nuclear, hydroelectric, etc.)	8%	—

Transportation used about one-quarter of our total energy or the equivalent of nine million barrels of oil per day. Automobiles and gasoline-powered trucks used about three-quarters of this — or about 7 million barrels per day.

Imported oil and petroleum liquids fulfill about 40 percent of the country's total petroleum needs or about 7

million barrels per day. Canada and Mexico sent us about 1 million barrels per day, leaving about 9 million barrels per day to be provided by U.S. sources. Barring discovery of very large oil reserves, U.S. production will, at best, remain at about that figure; hence we will continue to have a supply gap of a magnitude such that, if imports were cut off or drastically reduced, a major disruption of our economy would result.

Much effort and publicity have been given to "synthetic" fuels ("synfuels") from non-petroleum sources as a way to reduce our dependence on imported oil. The foremost sources for such fuels are coal, oil shale, tar sands, and alcohols from biomass. Hydrogen from water is frequently mentioned also.

The U.S. has coal in abundance.

An estimated 700 million tons were mined in 1980 and projections of as many as 1200 million tons have been made for 1985. Liquids have been

made from coal for many years. Germany met most of its requirements for liquid fuels during World War II by synthesis from coal. Coal, steam, and heat make "city gas," which can be converted into a range of liquid fuels. A South African government-owned company has been applying an improved version of the "city gas" technology in one plant for 26 years. A second plant, using further-improved technology, came on stream in 1980. A third, even more modern, plant is under construction. The three plants will produce about half of the requirements for liquid fuels in South Africa — about 40 million barrels per year. About 36 million tons of coal will be required. The plants make a variety of useful chemicals and fuels in addition to fuels for transportation.

The abundance of coal makes it such an attractive source that much research is being carried out on new methods to make liquid fuels. Several of these are based on a technique

called solvent refining. Finely-divided coal in a suitable solvent, plus the addition of hydrogen and, sometimes, a catalyst, gives a range of liquids plus a solid residue which is a clean-burning fuel for steam generation. Several of these processes are in pilot plant stage, but commercial use is some years away.

Coal can also be used to make a synthetic "natural" gas, which is mostly methane, and which can be converted into methanol, which in turn can be converted to gasoline by a catalytic process. A commercial plant to make gasoline from natural gas is under construction in New Zealand. The process could readily be used for manufacture of liquids from synthetic gas from coal. All the liquids-from-coal processes require large capital investment. Representative plants to make 1 million barrels per day of fuels to replace those from petroleum are expected to cost \$50 billion in 1980 dollars. Commercial plants should be in operation in the U.S., but it is unlikely that coal liquids will make a significant contribution to transportation fuels in the 1980's.

Oil shales are widely distributed around the world. Deposits in Colorado, Wyoming, and Utah are estimated to provide the equivalent of several hundred billion barrels of petroleum. Many of these deposits are relatively close to the surface, making them fairly accessible. Oil shales also occur in many other states. There are abundant supplies under Michigan, but at depths of 1200 or more feet, which make them relatively inaccessible — although recovery of the oil is being investigated.

The oil on shale is called kerogen. It is a viscous material similar to heavy petroleum but containing large amounts of nitrogen, sulfur, and metals. It must be pre-refined before it is sent to a conventional petroleum refinery. The finished liquid fuels are similar in most respects to those from petroleum, although hydrocarbon composition may be somewhat different.

The kerogen is recovered from the shale by the application of heat. Shale can be mined by conventional methods and retorted (heated) in plants on the surface. The retorts use part of the kerogen to provide heat.

Getting costs low enough to compete with petroleum has been an

elusive target, so commercial production has not been achieved. Exxon and The Oil Shale Corp. (TOSCO) have the first commercial plant in the U.S. under construction in Western Colorado. It will require the mining of 66,000 tons of shale per day to produce 47,000 barrels of shale liquids per day. Cost is expected to be \$2 billion.

The problems with the mining-surface-retorting recovery procedure are largely ecological. Dust from the retorts is troublesome and must be controlled. The spent shales are greater in volume than before retorting so disposal can be a problem. Spent shales contain salts which can leach into ground water and rivers. Large quantities of water — 2-6 barrels per barrel of shale liquids — are required for processing. Since the shale is in an

'None of these sources is likely to reduce the need for imported oil in the 1980's'

area where much of the available water is already committed, water may have to be imported to supply future plants. And finally, there are the problems brought about by bringing many people into remote places.

Kerogen can be recovered by burning or electrically heating a portion of the shale oil in place underground to produce heat to make the kerogen liquid enough to flow to a collection chamber and pumped to the surface. These techniques are less well developed than mining but may someday be practical for commercial use.

The "tar" on tar sands is similar to the kerogen on oil shale but is spread on grains of sand instead of on shale. Tar sands are distributed throughout the world. The most extensive deposits, in western Canada, are estimated to contain the equivalent of 1200-1400

billion barrels of petroleum. There are relatively small deposits in Utah.

Commercial plants in Alberta, Canada are producing about 150,000 barrels of liquids per day. The procedure is relatively simple. The overburden is stripped from the sands, which are mined by conventional open pit methods. The tar is removed by washing with hot water, and the tar separated from the water. It must then be pre-refined before it can be charged to a conventional refinery.

There are many problems. The sands are located where operation of mining equipment in extreme cold is difficult. Surface mining mars the landscape. The wash water contains traces of residual tar which offers a hazard to wildfowl using the settling ponds.

The investment required is about that for oil shale plants — that is, about \$50 billion for production of 1 million barrels per day. From the U.S. viewpoint, Canada is likely to consume all that is produced. There may be small production from the tar sands in Utah in the 1980's.

Hydrogen is an excellent fuel. Its use in vehicles would eliminate hydrocarbons and carbon monoxide from exhaust — since hydrogen burns to water. Nitrogen oxides would remain. Major problems with hydrogen are cost and handling.

Nuclear energy was once expected to provide low-cost hydrogen by electrolysis of water. This hope has disappeared with the high cost of electricity from nuclear energy. Research is underway to find less expensive means to produce hydrogen. For example, plants free hydrogen from water in the process of producing chlorophyll. Perhaps man can duplicate the process. Some DNA research indicates bacteria might be developed which would produce hydrogen at low cost.

Handling of hydrogen is difficult. Safety is a continuing problem. Use in vehicles would require the hydrogen to be liquified or compressed, or converted to metal hydrides. Tanks for liquified or compressed hydrogen are very heavy and none too safe.

The metal hydrides provide an attractive method of using hydrogen because they can be handled easily and safely. They must be heated to free the hydrogen. However, the metal content of the hydrides is high, so the container is heavy. Overall, hydrogen

has many attractive aspects, but commercial use as a transportation fuel is not likely for many years.

Alcohols as transportation fuels have much appeal. They can be made from biomass, and thus can be said to be a form of solar energy. Brazil has required the use of alcohol-gasoline blends for years as one means of alleviating dependence on imported petroleum. Recently, Brazil has required that newly designed engines be capable of operation on 100 percent ethanol, which Brazil makes from sugar cane and cassava root. Both these sources require large areas of land and much labor. Brazil has ample land and cheap labor. Even so, estimates place the cost of Brazilian ethanol at about \$1 per gallon. Since ethanol contains only about two-thirds as much energy as gasoline, this is equivalent to gasoline at about \$1.50 per gallon.

The use of alcohol in the U.S. is as gasohol — usually a blend of 10 percent ethanol and 90 percent gasoline. Corn is the most common source of the ethanol, although any grain can be used. Ethanol can be made from a variety of other biomass sources such as sugar cane, sorghum, garbage, corn stalks, or sugar cane wastes.

A bushel of corn makes about 2.5 gallons of ethanol — so corn at \$3 per bushel gives a raw material cost of \$1.20 per gallon of alcohol. Processing by conventional means costs 20-30¢ per gallon — so total cost is about \$1.50 for a fuel containing about two-thirds the energy of a gallon of gasoline.

Research on cheaper means of producing ethanol is underway. However, the cost of raw material seems likely to continue as the determining factor in the cost of ethanol from grain. Ethanol from waste is, of course, attractive in that it provides fuel while alleviating a disposal problem.

It should be remembered, however, that the use of agricultural "trash" which would otherwise be left on the fields might affect crop production adversely, since the trash reduces water run-off and improves the soil.

The use of alcohol becomes more attractive as the price of oil increases. Every gallon used reduces the amount of oil that must be imported. However, if all the grains — not just corn — produced in the U.S. were converted to alcohol and used in gasohol, it would meet only about 25 percent of our motor fuel needs.

Ethanol does have some problems. Costs from grain are high. (So far, subsidies in one form or another have kept the price of gasohol competitive.) If the fuel used to raise the corn, transport it to the plant, and make it into alcohol is taken into consideration, the total energy used is very close to that available in the alcohol produced. However, if solid fuels — or waste — are used to fuel the plant, a liquid fuel is made which gives a net gain in transportation fuels.

Also, in this hungry world, it may be necessary to make the hard choice between food for people and fuel for their vehicles. (Of course, if people and animals can and would consume the byproducts of alcohol manufacture, the choice would be less difficult.)

'In this hungry world, it may be necessary to make the hard choice between food for people and fuel for their vehicles.'

No discussion of alcohol is complete without mention of methanol. It is less expensive than ethanol, contains less energy per gallon, and is more toxic. It can be made from natural gas, coal, or biomass. It can be converted to gasoline.

There are several conclusions to be drawn from this review.

1. A variety of transportation fuels from non-petroleum sources are — or are about to be — commercial on a small scale.

- Liquids from tar sands are commercial in Canada.
- Liquids from coal are commercial in South Africa.
- A commercial plant is being built to produce liquids from oil shale in Colorado.

- Ethanol from grain for gasohol is in commercial production in a number of plants.
 - A plant to make gasoline from methanol (which can be made from coal) is being built in New Zealand.
2. All of these fuels are expensive. Table 1 shows estimated cost ranges in 1980 dollars.

Table 1 — Cost of Crude Oil and Estimated Cost of Alternate Sources as of December 1980.

	\$/bbl
crude oil	30-45
coal liquids	30-50
shale liquids	30-50
tar sands liquids	30-50
alcohol from biomass	40-70
hydrogen	?

3. None of these alternate sources of transportation fuels is likely to reduce, to a significant degree, the need for imported oil in the 1980's. But, the development of all sources should be pursued.

4. Hydrogen will not be a commercial fuel in the 1980's.

5. Research on improved methods of production of all these fuels is underway. □



About Harold J. Gibson

Harold Gibson is an engineering consultant specializing in fuels and lubricants for automobile engines. Manager of the Ethyl Corporation's Detroit Research Laboratories until he retired in 1976, Mr. Gibson is a Fellow of both ESD and SAE. He received his B.S. and M.S. degrees from the University of Michigan. This article is based on an address he presented earlier this year at LIT to the Michigan Educators Energy Forum.

Lawrence

INSTITUTE OF TECHNOLOGY

Annual Giving Report for 1980-81



Covering the period
July 1, 1980 to June 30, 1981



21000 West Ten Mile Road
 Southfield, Michigan 48075
 Telephone (313) 356-0200

Lawrence

INSTITUTE OF TECHNOLOGY

Dear Friends:

This Annual Giving Report is public recognition of the hundreds of generous individuals, corporations, foundations, and other organizations who supported LIT during the year ending June 30, 1981.

The past fiscal year had many exciting moments. Three notable highlights included: the new giving records established in almost every category of support, the successful response to the Kresge Challenge Grant, and the continuing efforts of so many dedicated volunteers.

In July of 1980, the Kresge Foundation approved a \$500,000 challenge grant for LIT. Payment required that LIT raise the funds necessary to complete the School of Management building. The pledges and contributions from "old" as well as new friends helped meet the challenge. LIT received the Kresge Foundation's check in mid-July, 1981.

The five-year \$12.5 million Capital Campaign, Sharing in Excellence, is our continuing challenge. The Campus Affairs and Activities Center and important alterations to existing buildings are still to come. LIT's donors have offered the College an overwhelming vote of confidence. We have united for a noble purpose.

Please accept our heartfelt "thank you" for the way you have responded. Your commitments and those of many others are vital to the on-going success of this great college.

Sincerely,

Wayne H. Buell
 Wayne H. Buell,
 Chairman of the Board



Richard E. Marburger
 Richard E. Marburger,
 President



G. Robert Harrington
 G. Robert Harrington,
 Vice President-Development



School of Architecture • School of Arts and Science • School of Management
 School of Engineering • School for Associate Studies



Annett photo

On the cover, scaffolding festooned LIT's new Management Building as concrete ceilings were poured in June, 1981. Above, Campaign Chairman Lewis C. Veraldi, ME'68, (left) previewed construction details in August with Dan Redstone, architect, Bob Harrington, vice president for development, and Dan Stokes, construction representative.

Giving Totals (July 1, 1980 to June 30, 1981)

Donors	Pledged	Received
Corporations	\$ 613,909.83	\$ 715,754.83
Foundations	1,005,410.85	576,410.85
Presidents Club	115,482.00	43,647.00
Alumni	355,065.00	82,174.00
Students	2,868.72	2,668.72
Members/Trustees	85,770.47	119,222.74
LIT Family	19,861.00	22,959.61
Friends	418,527.50	368,602.50
Associations	4,864.00	4,864.00
Matching Corps.	185,149.00 *	55,964.00
	\$2,621,759.37	\$1,992,268.25

* This amount is included in the other nine division totals.

Presidents Club

Presidents Club members made new pledges totaling \$115,482 during the 1980-81 fiscal year.

Reed W. Abt
Timothy G. Agajeenian
Stanley R. Allison
Paul S. Allmacher
George H. Amber
Paul S. Amber, P.E.
David Anderson
Al and Millie Andrzejak
Victor and Sophie Angelescu
Bruce J. Annett, Jr.
Irving Appelblatt
Roger C. Asman
Roger E. Avie
Edward J. Baker
Don and Marge Bamford

James T. and Nancy A. Battle
Rose D. Bauervic
Don and Jan Beattie
Albert L. Bednarski
Frank and Yvonne Bell
Hugh and Stella Bennett
Mr. and Mrs. Allan M. Bercau
Mr. and Mrs. Richard V. Bernard
Mark D. Bill
Charles R. Bisel
William H. Bishop
A. Robert and Maria Bliven
Roy E. Bonnett
David G. Booth
M. Thomas Braun

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Ernest E. Brown
Lawrence E. Brown
Cle and Beulah Buck
Mr. and Mrs. Stanley L. Buckay
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Irwin I. Cohn
Mr. and Mrs. Kenneth J. Cook
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Dr. Jerry L. Crist
Emil and Viona Dahel
Steven V. Darst
James E. Davies
Dr. and Mrs. Stephen R. Davis
Harry E. Day
Bruce A. Dean
Mr. and Mrs. Robert F. Dedoe
Louis A. DeGennaro
Nicholas DeMarco
Ashok Deshpande
Mrs. Kathleen DeVlieg
Dennis T. Dolbee
Mr. and Mrs. Edmund J. Dombrowski
Mitchell S. Dombrowski
Edwin H. Donaldson
Addie and Fred Drotar
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Mr. and Mrs. Edward F. Falkowski
Kenneth J. Farquharson
John and Margaret Fawcett
David E. Fillion
Mr. and Mrs. E. J. Fillion
Dudley F. Fiscus
John F. Fisher
Michael J. Fitch
Michael W. Fitzpatrick
John and Helen Flood
Doug and Eleanor Foley
A. P. Fontaine
Mr. and Mrs. John Fontanesi
Joseph Forgione
Harold L. Foster
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Howard P. Freers
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Sonia and Marvin Henckel
Stanley Hewett
Roy Martin Hoenie
Karl V. Holm
ArDath Lynette Holmes
Mr. and Mrs. Henry B. Horldt
Alexander Hossack
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Alumni

LIT's alumni are developing the giving habit in record numbers. A fantastic 14.9 percent of all graduates participated in fiscal 1980-81—an increase of more than 200 percent over 1979-80. As indicated in a story in the "On Campus" section of this *LIT Magazine*, LIT alumni giving received special recognition from the Council for the Advancement and Support of Education. Alumni listed below deserve special recognition for their record amount of pledge support totaling \$355,065, including contributions of \$82,174.

See the Presidents Club roster for additional LIT alumni contributors.

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Bizon photo

High above the campus, in September, 1981, glaziers carefully placed glass panels into the new Management Building's four massive skylights which will illuminate the structure's interior. To help reduce lighting costs, much of the building has been designed to take advantage of "free" natural light.

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The new Management Building takes shape under the warm June, 1981 sun. The Building will also serve as library and dining facilities serving all students.



Building will house LIT's 800 student School of Management as

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Friends

If you can judge a college by the friends it has, then LIT is indeed in very good company. Friends of the College made new pledges of \$418,527. Contributions during fiscal 1980-81 amounted to \$368,602.

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Corporations

The number of corporations supporting the College more than doubled during the 1980-81 fiscal year. New pledges totaled \$613,909. Contributions grew to \$715,754. LIT's relationship with the corporate world is one of its most important assets.

A-OK Machine & Tool Company
ARA Institutional Services
A. S. A. Machine Tool Electricians, Inc.
Accurate Boring & Machine Company, Inc.
Acme-Cleveland Corporation (LaSalle Machine Tool)
Acme Industrial Products, Inc.
Acorn Iron Works
Air-Matic Products Company, Inc.
Air Products & Chemicals, Inc.
Air Traffic Service Corporation
Alexander-Alexander of Michigan, Inc.
Allar Company, Inc.
Allen-Bradley Company
Allen Electric Supply Company
Allied Corporation
Allstate Insurance Company
American Airlines, Inc.
American Motors Corporation
Amoco Oil Company
Anchor Fastener Sales Company
Apex Detroit Tools, Inc.
Arrow Head Design Corporation
Arrowhead Design Corporation
Arrowsmith Tool & Die, Inc.
Atlas Tool, Inc.

Automotive Accessories, Inc.
B-H Tool & Supply Company
B & K Corporation
B & M Industries, Inc.
Barry Steel Corporation
Barton-Malow Company
The Bendix Corporation
Bendix (Warner Swasey Foundation)
Berg Tool, Inc.
Betz Foundry
Bigelow-Liptak Corporation
Blue Water Fabricators, Inc.
Blue Water Plastics Company
Bopp-Busch Manufacturing Company
Borman's, Inc.
Brothers Industries, Inc.
Brown & Deyo & Associates
The Brown Corporation of Ionia, Inc.
Leo Burnett Advertising Company of Michigan
Burroughs Corporation
Camelot Electronics
Cancco Tool & Machine, Inc.
Cargill Detroit Corporation
Carlson, Dimond & Wright, Inc.
John V. Carr & Son, Inc.
The Robert Carter Corporation
Center Electric Supply Company



By September, 1981, the Management Building had begun to present its final profile to the campus.



Bizon photo

- Champion Spark Plug Company
- Chemcentral/Detroit
- Chrysler Corporation
- Citation Tool, Inc.
- City Metal Refining Company, Inc.
- Cleaners Hanger Company
- Clipper International Corporation
- Cole Carbide Industries, Inc.
- Commercial Contracting Corporation
- Computerized Insurance Techniques
- Concord Tool & Manufacturing Company, Inc.
- Construction Pipe Company, Inc.
- Consumers Power Company
- Cook Industrial Coatings, Inc.
- Coopers & Lybrand
- Corduroy Rubber Company
- Core Industries, Inc.
- Walter L. Couse & Company
- Craft Line, Inc.
- Cronk & Tocco, Inc.
- The Cross Company
- Crowe & Associates, Inc.
- Crowley, Milner & Company
- Cunningham Drug Stores, Inc.
- DMI Industries, Inc.
- Darin & Armstrong, Inc.
- Daverman Associates, Inc.
- Decca Pattern Company, Inc.
- Deken Machine Design, Inc.
- Delray Foundry Company
- DeMaria Building Company
- Dequindre Tool & Die Company, Inc.
- Detrex Chemical Industries, Inc.
- Detroit Bank & Trust
- Detroit Edison Company
- Detroit Free Press
- Detroit Quality Brush & Manufacturing Company
- DiClemente-Seigel Engineering, Inc.
- Diehl & Diehl, Architects, Inc.
- Disco Aluminum Products Company
- Dominion Tool & Die Company
- Douglas & Lomason Company
- Dover Corporation, De-Sta-Co Division
- Dow Chemical USA
- Drake Printing Company
- J. L. Dumas & Company
- Dunn Tool Company
- Dymac Industries, Inc.
- Eaton Corporation
- Electro-Matic Products, Inc.
- Emerald Turf Engineered Sprinklers, Inc.
- Environetics
- Ethyl Corporation
- Etkin, Johnson & Korb, Inc.
- The Evening News Association
- Excel Corporation
- Expert Hydraulics
- J. N. Fauver Company, Inc.
- Federal-Mogul Corporation
- Financial Guardian, Inc.
- First Federal Savings & Loan Association of Detroit
- Fischbach-Natkin Company
- Flynn Paving Company
- Ford Motor Company
- Forging Specialties, Inc.
- Foster Chemical, Inc.
- Four-D Builders Supply
- Frank's Nursery Sales, Inc.
- J. A. Fredman, Inc.
- Freeman-Darling, Inc.
- French Sullivan, Inc.
- Fuller Tool Company
- Fusco Associates, Inc.
- G. P. Plastics Company
- Gallagher-Kaiser Corporation
- Gatchell & Associates, Inc.
- General Electric Company
- General Motors Corporation
- O Germany, Inc.
- Giffels Associates
- Glanz & Killian Company
- Glassman Oldsmobile
- Gonzalez Design Engineering Company
- C. L. Granden & Company
- Gray Electric Company
- Great Lakes Gas Transmission Company
- Great Lakes Steel
- John E. Green Company, Inc.
- H & L Tool Company
- Jack Haines Company
- Harley, Ellington, Pierce, Yee and Associates
- John T. Harley Company
- Harrison Piping Supply Company
- The E. F. Hauserman Company

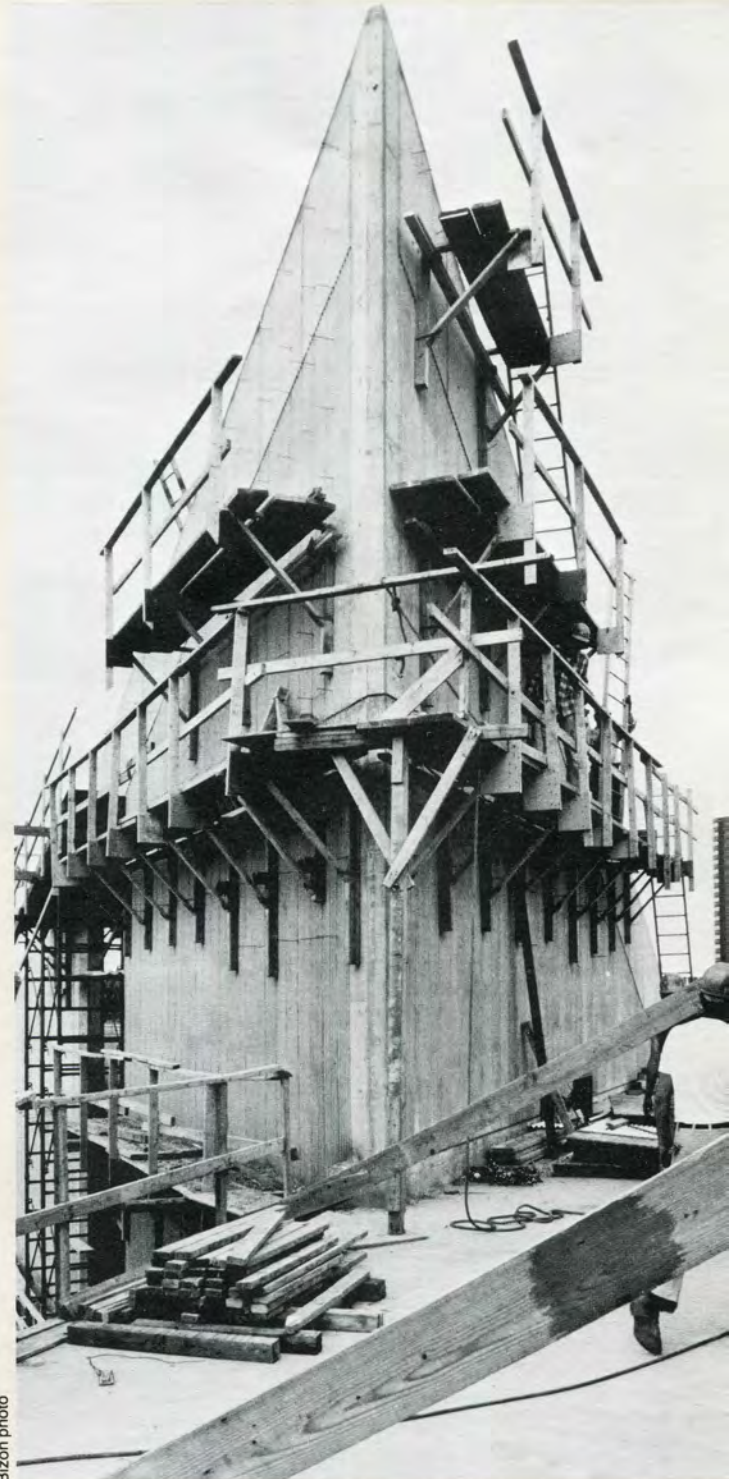
Piece by piece, glass panels in the Management Building's skylights are placed high over the central courtyard.

Havis-Glovinsky Associates
 Hentschel Instruments, Inc.
 Hiram Walker & Sons
 Hollock Hydraulic Inc.
 Holley Carburetors, Division of Colt
 Holley Carburetor
 Michel J. Howard Associates, Inc.
 W. J. Howard & Sons, Inc.
 Howe-Martz Glass Company
 Hubbell, Roth & Clark, Inc.
 J. L. Hudson Company
 Hughes Chemical Company
 Hydra-Zorb Company
 Hydromation Company
 Hygrade Food Products Corporation
 IBM
 ITC Electric Company
 Imperial Floor Covering, Inc.
 Inland Tool & Manufacturing, Inc.
 Inmont Corporation (Carrier)
 International Electric Controls
 J. P. Tool, Inc.
 K-R Automation Corporation
 Kamp-Di Como Associates
 Kelsey-Hayes
 Kentec Corporation
 Kennedy Boring & Machine, Inc.
 Key Welder Corporation
 Kirby Grinding Company
 K mart Corporation
 Kowalski Sausage Company, Inc.
 Kroger Company
 David C. Krogsrud Associates
 Kuhlman Corporation
 Leon Kohls & Associates, Inc.
 L & B Machine Tool, Inc.
 LOF Plastics, Inc.
 F. Jos. Lamb Company
 Lane Tool & Manufacturing
 Corporation
 Len-Tec Corporation
 Lincoln Park Boring Company
 Al Long Ford
 Lupatin Welding, Inc.
 Maccabees Mutual Life Insurance
 Company
 Machine Tool Hydraulics
 Machine Tool Service, Inc.
 MacPhail Industrial Sales
 Madison Electric
 Majestic Machine & Tool
 Ralph E. Maly, Inc.
 Manco Tooling, Inc.
 Seymour Mandell
 Manufacturers National Bank
 Marathon Oil Company
 Maro Precision Tool Company
 Maxitrol Company
 Mayotte-D'Haene Associates,
 Architects, Inc.
 McLouth Steel Corporation
 McGraw Electric Company
 Mecha Engineering Company
 Medi-Nuclear Corporation
 Melody Farms Dairy
 Merlo Steam Equipment Company
 Metamora Products Corporation
 Michigan Bell Telephone Company
 Michigan Boiler & Engineering
 Company
 Michigan Consolidated Gas Company
 Michigan Mutual Insurance Company
 Michigan-Wisconsin Pipeline
 Company
 Midwest Broach Corporation
 Midwest Manufacturing & Sales, Inc.
 Milarch Printing and Office
 Supply Company
 Milton Manufacturing Company
 Mirrex, Inc.
 Morrison-DeLaere Associates, Inc.
 C. A. Muer Corporation
 Multi Crafts, Inc.
 Mundet Insulation Company

Michael Nalu Associates, Inc.
 National Bank of Detroit
 Neyer, Tiseo & Hindo, LTD
 Niemiec & Nemes
 Norbert Industries, Inc.
 Nor-Cote, Inc.
 Outwater Trane Service Agency, Inc.
 P T Standard Parts Company
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 Associates, Inc.
 Snyder Corporation
 James R. Snyder Company, Inc.
 The Stanley-Carter Company
 Steel Fabricators and Sheet
 Metal Company
 Stellar Engineering, Inc.
 Stev Fran Engineering
 Stouffer's Northland Inn
 Structural Fabricators
 Suburban Boring Company
 Suburban Brick
 Summagraphics Corporation
 Summit Industries, Inc.
 Sutter Products Company
 Taylor Engineering Corporation
 The Taylor Supply Company
 Tedrick Photo Service, Inc.
 Tektronix
 Touche Ross & Company
 Townsend & Bottum, Inc.
 Travelers Insurance Company
 Trio Tool Company
 Tronic Ware, Inc.
 Turk's Paving, Inc.
 Turner-Brooks, Inc.
 Unistrut Corporation
 United Airlines
 Utica Machine Company
 Valeron Corporation
 Van Pelt Corporation
 D. H. Vogel Division
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 Walcon Corporation
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 Western Electric Company
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 X-Celsior Machine Corporation
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 American Hospital Supply
 Corporation
 American Motors Corporation
 American Natural Resources System
 American Standard, Inc.
 American Telephone & Telegraph
 Company
 American United Life Insurance
 Company
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 The Austin Company
 BASF Wyandotte Corporation
 Barnes Group Foundation, Inc.
 Bechtel Foundation
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 (Warner-Swasey)

The Boeing Company
 Borg-Warner Corporation
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 Carborundum Corporation
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Bizon photo

Early in June, 1981, construction workers work to complete one of the Management Building's distinctive stair towers.

Corporations— Matching Gifts

Matching gift contributions to LIT during fiscal 1980-81 totaled \$185,149, including \$55,964 in cash gifts. The matching gift programs sponsored by the following companies encouraged giving by LIT alumni and friends:

ACF Foundation, Inc.
 Acme-Cleveland Corporation
 (LaSalle Machine Tool)

Aetna Foundation
 Air Products & Chemicals, Inc.
 Allied Corporation

Members and Trustees

The College is fortunate to be in the capable hands of a dedicated group of members and trustees. One measure of this dedication is the support that this most prestigious group is giving to the Capital Campaign. The total pledges and contributions from members and trustees passed the \$400,000 mark in fiscal 1980-81.

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LIT Family

Most of the LIT faculty, staff, and administration made their five-year pledges to the Capital Campaign during the 1979-80 fiscal year. Therefore, their support was included in the 1979-80 *Annual Giving Report*. However, total giving from the LIT family has continued to climb. During the 1980-81 fiscal year, \$19,861 in new pledges was added.

See the Presidents Club roster for additional LIT family contributors.

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Michael P. Sweeney
Richard J. Trippett
Mr. and Mrs. Carl Varadian
Mr. and Mrs. Thomas H. Warren
Mr. and Mrs. Donald E. Wentz
Mr. and Mrs. Richard R. Werry, Jr.
Mr. and Mrs. Walter H. Wentzel
Marvin E. Williams
Mr. and Mrs. Glen S. Wilson
Mr. and Mrs. Will R. Wisler
Paul H. Zang
Mr. and Mrs. Conrad Zemans

These rosters include names on record for contributions received as of June 30, 1981. Omissions or corrections should be reported to the Office of Development.

Federal-Mogul Corporation
Firestone Tire & Rubber Company
Ford Motor Company
Foxboro Company
Fruehauf Corporation
General Telephone & Electronics Corporation
Gee & Missler Services, Inc.
General Dynamics, Inc.
General Electric Foundation
Gibbs & Hill, Inc.
Goodyear Tire & Rubber Company
Gould, Inc.
Alexander Grant & Company Foundation
John A. Hartford Foundation
Heublein Foundation, Inc.
Howmet Turbine Components Corporation
International Business Machines Corporation
International Minerals & Chemical Corporation
Kidder Peabody & Company
Marathon Oil Foundation
Marsh & McLennan Companies, Inc.
Martin Marietta Corporation
Michigan Bell Telephone Company
Midland-Ross Corporation
Monsanto Fund

National Steel Corporation
Occidental Petroleum
Owens-Illinois, Inc.
Pacific Mutual Life Insurance Company
Pennwalt Corporation
Peoples Energy Corporation
Pillsbury Company Foundation
Protection Mutual Insurance Company
Rockwell International Corporation
Rust Engineering Corporation
The S & H Corporation
Sohio
Sperry Corporation Foundation
The Stanley Works
Sterling Drug Company
Sun Company, Inc.
TRW Foundation
Total Petroleum, Inc.
UOP Foundation
Uniroyal, Inc.
United Technologies
Wallace-Murray Foundation
Warner-Lambert Company
Wausau Insurance Company
Westinghouse Corporation
Xerox Foundation
Arthur Young Foundation

Foundations

The number of foundations supporting the College increased again—this year by more than 100 percent. New pledges from foundations totaled \$1,005,410 during the 1980-81 fiscal year.

Carman Adams Foundation
George I. Alden Trust
Amax Foundation, Inc.
Charles M. Bauervic Foundation
Clarence & Grace Chamberlin Foundation
Gerald W. Chamberlin Foundation, Inc.
DeRoy Testamentary Foundation
DeSeranno Education Foundation
The Charles B. & Charles R. DeVlieg Foundation
Earl-Beth Foundation
Fisher-Insley Foundation
Forging Industry Educational & Research Foundation
Frank E. Gannett Newspaper Foundation, Inc.

William Randolph Hearst Foundation
Herrick Foundation
Kresge Foundation
Kysor Industrial Corporation Foundation
The R. C. Mahon Foundation
Alex & Marie Manoogian Foundation
McGregor Fund
Morrison Foundation
NL Industries Foundation, Inc.
National Action Council for Minorities in Engineering, Inc.
Sage Foundation
George & Mabel H. Slocum Foundation

Students and Student Organizations

Gifts from students attending the College and student organizations are always appreciated.

See the Presidents Club roster for additional LIT student contributors.

Roger Hane
Mrs. Robert N. Hillman
Ceramics - Auction
Golden Hearts of Sigma Phi Epsilon

LIT Library Science Students
Association
Run For Excellence

Associations

A variety of associations, each with an important link with the College, contributed \$4,864. LIT recognizes these associations and their valuable contributions to the College.

American Concrete Institute
American Society for Metals - Detroit Chapter
Bricklayers Local #26
Detroit Amateur Radio Association
Electrical Association of Detroit
Kiwans Club of Southfield Central
Masonry Institute of Michigan, Inc.

Michigan Chapter of Producers, Inc.
Redford Union High School, District No. 1 - Activities Fund
Rotary Club of Southfield
Southeastern Michigan Amateur Radio Association
Wayne State University Library
Science Alumni Association



Somebody forgot to tell the students in Bob Champlin's urban culture class that the real-life problem they were tackling was unsolvable—so they went ahead and solved it anyway!

The harsh reality of decaying and run down commercial areas in the nation's cities and the solution to renovating them at a reasonable cost have plagued urban planners for decades. For the LIT students involved in a year-long project arranged by their professor to help a neighborhood redevelopment group, however, the answers were simple and basic—make the area more appealing to pedestrians and shoppers and add a festive "mall-like" air to the currently traffic-oriented section of town.

Robert Champlin, associate professor of architecture at LIT, met early in the 1980-81 academic year with representatives of the Michigan Avenue Community Organization (MACO), a group which brings together residents and merchants from a three-mile area around Michigan Avenue from West Grand Boulevard to Wyoming. The organization has, as its main objective, the redevelopment of the entire area including homes, public areas, and commercial structures and, to this end, received a \$580,000 block grant from the U.S. Department of Housing and Urban Development. Much of this funding is being used for home improvement loans and grants and industrial buffering.

New life 'on the avenue'

Prof. Champlin's students are at it again. This time they're helping a struggling Detroit community to bounce back

What the MACO people lacked, though, was an overall plan for renovation of the commercial strip which fronted along Michigan Avenue. They approached Bob Champlin for help, and he, in turn, decided to have students work on a redevelopment plan as the major semester project in each of his three urban culture classes.

Students began the long process of planning and designing with extensive research into such areas as ethnic make-up, history, traffic patterns, and traffic flow. They carefully reviewed the neighborhood's current condition. In addition, they "took to the streets" to survey shoppers and merchants to find out how they viewed the area, what their own needs and concerns were, and what they would like to see included in a redevelopment project.

Small groups then planned and designed what they believed would be the

best solution. From the 18 original ideas, three were chosen, one from each class, for further development in the second semester. Students were divided into teams to work on various aspects of the project such as refining the design plans, studying ways to implement the recommendations, building a scale model, putting together a professional-level presentation, and compiling the results into a written study.

The three completed designs were first presented at a special community meeting where MACO residents and merchants rated the three proposals and chose what they thought was the best and most viable alternative. The next day, visiting professor of architecture, renowned urban planner Edmund Bacon, also reviewed the designs and made his choice. The results were unanimous.

The "winning" plan incorporated several basic recommendations, outlined in the written study, although it is expected that portions of all three final designs will be incorporated when the project is built. In their design, the students physically redesigned Michigan Avenue to slow local traffic and divert through traffic to I-94. They also proposed designating certain multi-purpose lanes as inbound or outbound depending on daily traffic increases, providing

additional off-street parking to reduce congestion, widening and re-designing pedestrian walkways to separate shoppers from the main road and to provide plazas and open space walkways, and building a center landscaped median. In addition, they suggested turning the upper portion of commercial buildings into attractive apartments with rooftop gardens visible from the street, providing crosswalks across Michigan Avenue covered with transparent roofs to shield pedestrians from the elements and make motorists more aware of the shoppers, and "brightening up" the storefronts with colorful striped awnings.

The design was basic, viable, and innovative—so innovative in fact that Bacon, in his assessment of it, could not heap enough praise on the designers.

"I've never seen anything like this before and I'm amazed that the students could have come up with something so simple and yet unique," he noted. "This

Members of a student design team explain the features of their community redevelopment concepts to Edmund Bacon, Philadelphia urban planner and LIT visiting professor of architecture, while MACO representatives and students listen.

will work in the area and is cost-efficient enough to be fully implementable in the next few years."

The MACO representatives were thrilled with the work and began immediate plans to turn the design into a reality.

"I can't tell you how happy and grateful we are for all the work the students have done," said Denise Jacobs, MACO treasurer and local homeowner. "We couldn't have done any of this without their help and everyone is amazed and delighted with the designs."

According to Bob Champlin, the students devoted over 7,000 hours to the development of the plans.

"Everyone became really involved with the MACO group," he noted, "and that really pleased me. "They now have a better understanding of what it feels like to work in the 'real world' and deal with those everyday kind of problems which seem to occur all the time in any project.

"These students are the keys to our country's future," he continued, "and if we can get them involved in its problems now, we will all be better off. I think that what they learned, above and beyond all else, was that if we work together, there isn't any problem we can't lick. That's the best lesson any teacher can hope to teach." □



On-campus

Tuition: how much is too little?

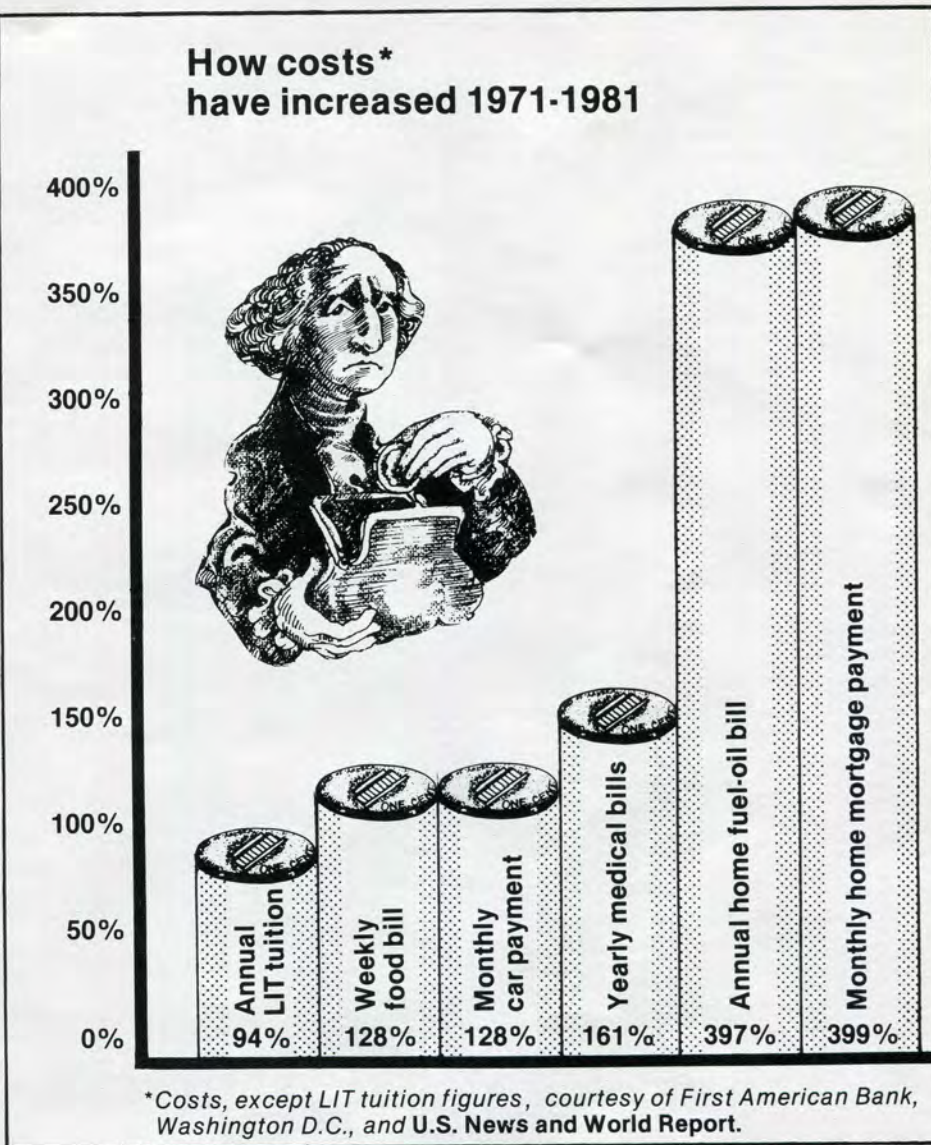
“**T**his tuition is killing me,” a Lawrence Institute of Technology student was recently heard saying to another during registration. This autumn, LIT tuition is up 8.8 percent. A student paying \$1575 in 1980-81 is paying \$1725 now. But things could be worse. At the Massachusetts Institute of Technology, student tuition is \$7400 this September.

The fact is, LIT's tuition is generally far less than that charged by other private colleges and universities in Michigan and across the country. An article in the Detroit *Free Press* recently indicated that among the State's private undergraduate colleges, only Madonna was less expensive. The College Scholarship Service has pegged the average tuition and fee charges at the nation's private colleges at \$3709. This “gap” has led some LIT staffers to wonder aloud whether the College's tuition is so inexpensive that someone might think there was “something wrong” with the College's educational programs.

Placement figures don't seem to support this. Indeed, studies prepared by the College's Placement Office and several deans indicate that LIT students graduating in marketable career fields are being eagerly snapped up by business and industry, and at record salaries. Concurrently, contributions to the College from industries likely to employ LIT students stand at all-time-highs.

“What our reasonable tuition figures really mean is that we've endeavored to carefully monitor expenses,” asserts LIT president, Dr. Richard Marburger. “Tuition covers about 85 percent of our actual cost of educating students,” he says. “Our institutional heritage is based on the pledge that we offer an education that working men and women can afford. We won't deviate from that.”

No stranger to responsible fiscal



management is Dr. Wayne H. Buell, ChE'36. “Others spill what we spend,” says LIT's chairman of the board, and president from 1964 to 1977. “Our programs have to pay their way, classes must be full, and LIT has to continue its schedule of day and evening classes,” Dr. Buell adds. “Offering classes from 8 a.m. to almost 11 p.m. in three separate programs means our physical plant is well utilized and spreads the cost of our fixed expenses such as the library or administration over a greater student population — meaning lower costs for all.

“In addition, we continue to employ both full-time faculty as well as a part-time or adjunct faculty group with current business and industrial experience. This combination is

essential for students to learn state-of-the-art applications of theory, while keeping our overall staff costs at acceptable levels.”

Obviously, LIT's hardnosed approach to fiscal responsibility is winning converts. Even a cursory review of the nation's colleges and universities shows many are adopting methods pioneered decades ago by LIT — such as evening programs and an increasing number of adjunct faculty.

Happily, elsewhere and at Lawrence Institute of Technology, the real winners seem to be the students. At LIT, a record fall enrollment perhaps indicates that more students than ever are discovering educational quality is a matter of both dollars *and* sense. □

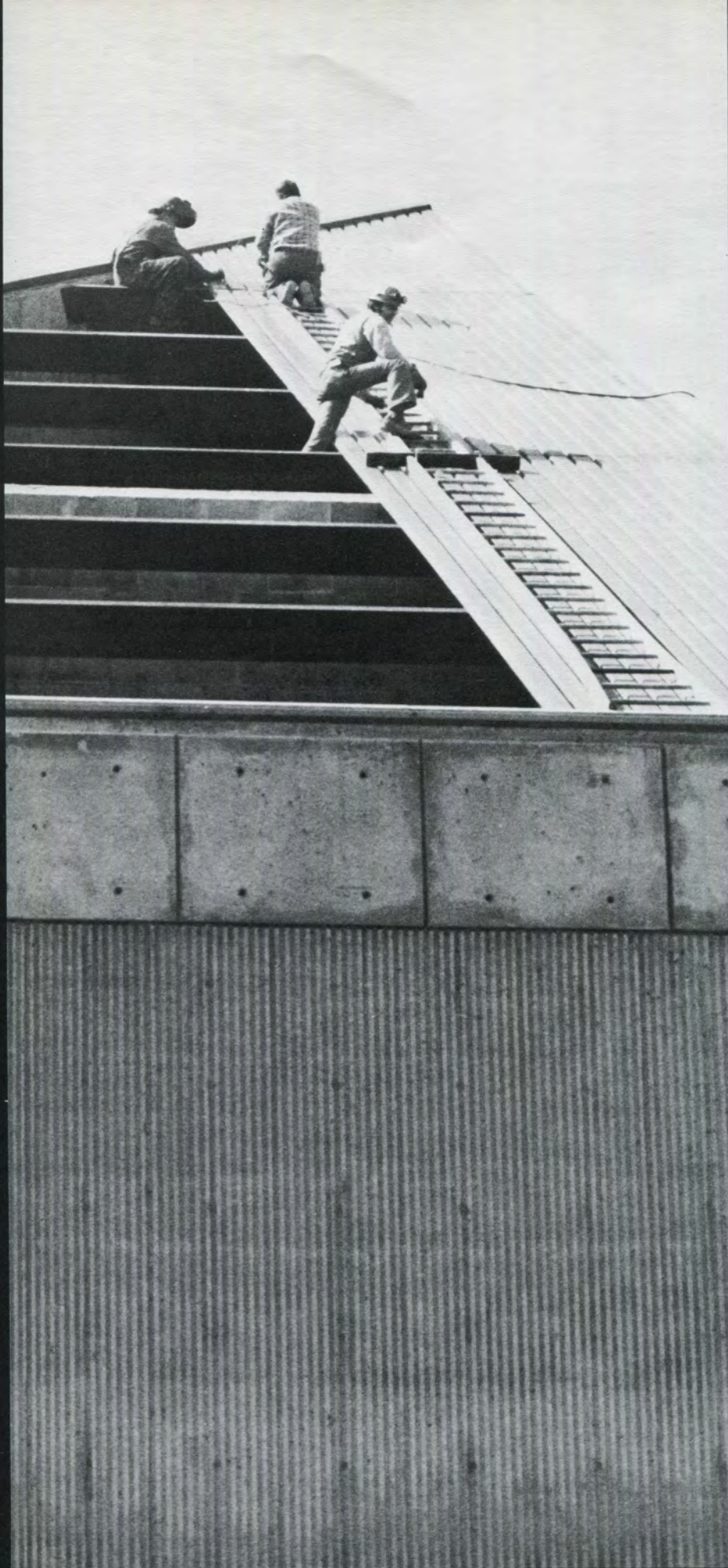


PHOTOGRAPHY BY

W. G. Bizon

Some of the finest photos to appear in LIT publications over the past few years have been taken by Walter G. Bizon, BA'77. He's a most versatile fellow, and has tackled everything from yearbook portraits to campus aerial photos taken while





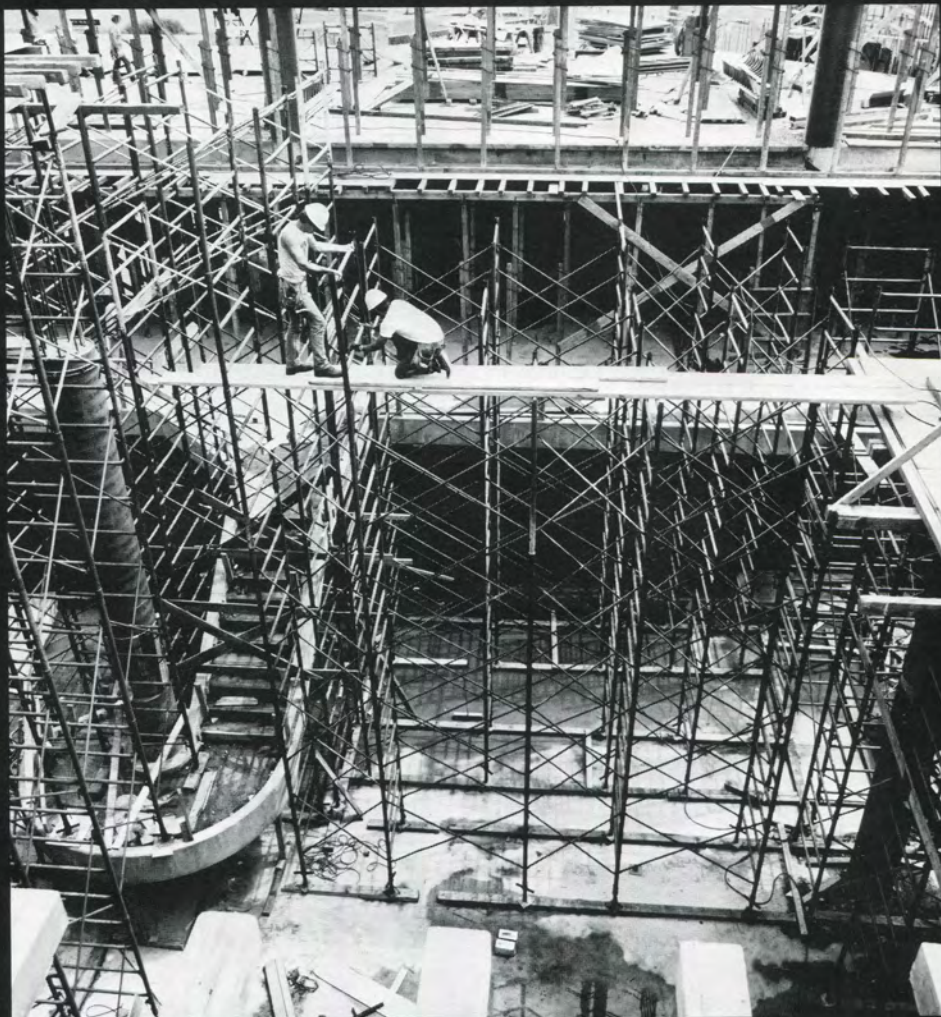
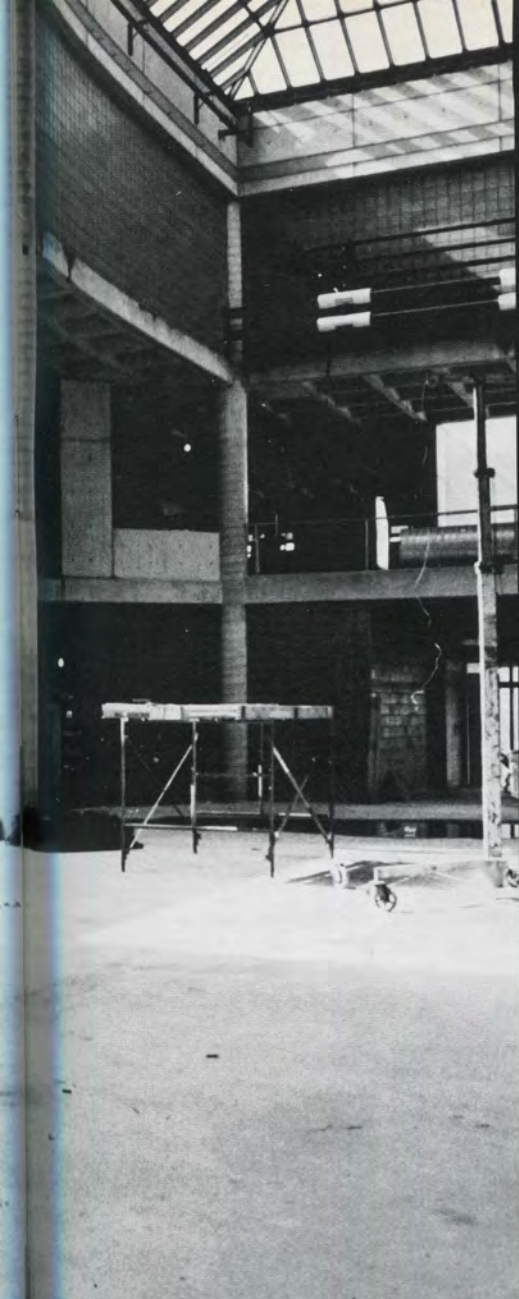
dangling out of the window of a small plane.

One of his most ambitious undertakings has been a photographic survey of the construction of LIT's new Management Building for architects Louis G. Redstone Associates, Inc. The photos on these four pages and in this issue's Annual Giving Supplement are from that project.

Far left, the new Management Building's southwest entrance. Left, workers roof one of the structure's distinctive triangular stair towers. Above, a crowning touch is put on one of the building's large skylights.

Still far from finished when these photos were taken in September, the Management Building's central gallery, right and lower right, is certain to be utilized as a "commons" by all students using the relocated library and dining facilities. Far right, the same area as its concrete ceiling was poured in June. Even though portions of the new building are totally underground to conserve energy, natural light will reach all floors from skylights and light wells.





About Walter G. Bizon

Wally Bizon, BA'77, has served as LIT's coordinator of audiovisual services and chief photographer since 1977. He has attended the Winona School of Professional Photography and his work has appeared in a variety of area publications. Experienced in both architectural and commercial photography, his clients include several leading architectural and construction firms.

LIT graduates largest class

A record number of students, over 600, were graduated from Lawrence Institute of Technology during the College's 49th Commencement on June 7.

The graduation was held at the Detroit Civic Center's Ford Auditorium and this year's speaker was Howard H. Kehrl, vice chairman of General Motors. Receiving honorary doctorates were State Senator Bill S. Huffman, who represents the 16th district, and Walter J. McCarthy, Jr., chairman and chief executive officer of Detroit Edison Company.

Mr. Kehrl, the commencement speaker, began his career as a college graduate in training with General Motors in 1948. He was elected vice chairman in 1980. He was graduated from Illinois Institute of Technology with a bachelor of science degree. He also received a master of science degree in engineering mechanics from the University of Notre Dame and a master's degree in industrial management from MIT.

Mr. Kehrl serves as a director of the Dayton-Hudson Corp., Harper-Grace Hospitals and, in 1981, was elected chairman of the board of the United Negro College Fund. He received the honor award from Notre Dame's College of Engineering, the Distinguished Service Award from Wayne State, and the Corporate Leadership Award from MIT. He was awarded an honorary doctor of science degree in industrial management from LIT in 1977.

Mr. Huffman, who received an honorary doctorate in humanities, served as a state representative and as mayor and councilman of Madison Heights before being elected a state senator in 1974. As acting chairman of the Senate Appropriations Subcommittee on Higher Education, Senator Huffman designed the Investment Needs Model, an innovative new plan for assessing Michigan's higher education requirements. A longtime friend and champion of higher education, Huffman also served as a member of the Governor's Special Committee on Higher Education while in the House of Representatives.

Mr. McCarthy was awarded an honorary doctorate in engineering during the LIT ceremonies. He also holds a B.M.E. degree from Cornell University and the



Bizon photo

equivalent of a master's degree from the Oak Ridge School of Reactor Technology.

An expert in the field of nuclear technology, Mr. McCarthy began his career at Detroit Edison in 1968 as the assistant manager of engineering. He was named president and chief operating officer in 1979 and assumed his current post this fall.

Mr. McCarthy is a director of many local and national organizations and

corporations including the: Detroitbank Corporation; American Nuclear Energy Council; Cranbrook Institute of Science; Detroit Symphony Orchestra; Boys' Clubs of Metropolitan Detroit; Police Athletic League; and the Edison Electric Institute. He has also been elected a fellow in the American Nuclear Society, ESD, and in 1958 was named one of the "Five Outstanding Young Men" in the State of Michigan by the Junior Chamber of Commerce. □



Bizon photo

From left: LIT chairman Wayne H. Buell, ChE'36, and President Richard E. Marburger congratulate Gary S. Van Neck, ArE'63, Victor L. Kochajda, EE'52, and Patrick J. Scullion, ME'63, IM'76, this year's alumni achievement award recipients. Kurt O. Tech, ME'48, (far right) LIT member and trustee, presented the awards.

Distinguished alumni honored

Three of LIT's distinguished alumni were honored during Commencement exercises, June 7. Receiving alumni achievement awards were Victor L. Kochajda EE'52, president of Teal Electric Company; Patrick J. Scullion ME'63 and IM'76, vice president of marketing and district operations at the Michigan Consolidated Gas Company; and Gary S. Van Neck ArE'63, vice president of Rossetti Associates.

Victor Kochajda is past chairman of the Michigan Section of the Illuminating

Engineering Society, and has also served as a member of the Board of Managers of the National Association of Electrical Distributors. In addition, he was a member of the Michigan Product Liability Task Force which worked closely with the Michigan Manufacturer's Association in reinforcing Michigan's law on product liability.

He is a trustee of the National Association of Wholesale Distributors and a director of the LIT Presidents Club. He is also active in ESD and is a member of the

Michigan Eta Chapter of Tau Beta Pi national engineering honor society.

In addition to his LIT degrees, Pat Scullion also holds a juris doctorate from Detroit College of Law.

Pat began his career with Michigan Consolidated in 1955 as a meter reader. As vice president, Scullion is responsible for all of Michigan Consolidated's marketing activities as well as the operation activities in Grand Rapids, Muskegon, Mt. Pleasant, some 430 communities in the northern part of the lower peninsula, and parts of the upper peninsula.

He is a member of the Michigan Bar Association and ESD. He has also served on several professional committees for the Michigan Gas Association and was a member of the advisory committee involved in research of natural gas powered fuel cells with United Technologies. In addition, he is the author of the gaseous fuels section of the 1980 energy report published by The Michigan Energy Research Resource Association.

Gary Van Neck joined Rossetti in 1963 as a project designer and was promoted to his current position in 1969.

A member of the Detroit and national chapters of the American Institute of Architects, he is also active in the Michigan Society of Architects. He is a registered architect in Michigan and has served on many professional committees, including the AIA national Compensation Management Task Force and Project Management Task Group and the AIA Detroit chapter Program and Environment Committees.

As an associate at Rossetti Associates, Gary has supervised many award-winning projects. □

'Focus on promise ahead,' says Kehrl

“Your long-term futures as members of a constantly changing American society and of a constantly changing world community are rich with promise. Never doubt that,” Dr. Howard H. Kehrl, told the assembled graduating Class of 1981.

“Too often today, it seems we tend to concentrate not on the *promise* before us, but only on the *problems* that beset us. I'd like to suggest that you get into the habit of analyzing what is *good* about these times — to focus on what *can* be, rather than what is.

“One thing to keep in mind is that we are living in a world of uncertainty and change,” Dr. Kehrl added.

“But uncertainty and change are not the same as gloom and chaos. And to a great extent, we manage change — keep it within the range of what we want for our society — because of our understanding of technology.

“... The pace of change is posing difficult challenges for our society. We can best meet those challenges by pausing for a moment — to assess where we are and where we want to go in the coming decade.

“The critical issues facing our nation cannot be addressed until we reach some consensus on what we want for our society. Within a dispersed, democratic system, it is



President Marburger (far left) and Chairman Buell (far right) greet honored guests at the 1981 Commencement (center left to right): Walter J. McCarthy, honorary doctor of engineering recipient; Howard H. Kehrl, commencement speaker and 1977 honorary degree recipient; and Bill S. Huffman, honorary doctor of humanities recipient.

not easy to achieve agreement and understanding.

“But understanding, by itself, isn't enough. Events of the past decade have demonstrated a need to base future decisions on several other criteria: a determination to re-examine priorities, bringing our balance to decision-making, and a commitment to live within our resources.

“These are important objectives — indeed, they are fundamental to our success as we move through the decade of the 80's. No important part of the American agenda can be accomplished unless and until we coordinate our resources. Government alone cannot create jobs, nor safeguard the environment, nor improve our productivity. Neither can business do these things alone. Only a new alliance can achieve

these important tasks.

“The need for cooperation between business, labor and government was never more critical. But cooperation should not be confused with intrusion into each other's domain. Just as two railroad tracks are separate and yet linked, business, labor and government can work together, leading to a common destination.

“We can achieve a better life for our citizens and a new vitality for our nation. To succeed, the narrow interests of the past must give way to a new vision of the future. This new vision depends on our willingness to work in closer harmony than ever before.

“And the process must start by focusing *not* on the sacrifices we must make today, but on the rewards we will reap in the years ahead.” □

Bizon photo

LIT Magazine takes third

The *Lawrence Institute of Technology Magazine* and LIT's 1981 alumni dinner-dance brochure have been cited for excellence in a national competition sponsored by the National School Public Relations Association (NSPRA).

The *LIT Magazine*, presented an honorable mention award (3rd place), is edited and designed by Bruce Annett, director of public and alumni relations. Anne Cattermole, associate director, authors most of the feature articles. Deborah Faes is production assistant. Diane Nagelkirk executed the cover of the winning issue.

The 1981 alumni dinner-dance brochure, distributed in March, won an award of merit. The publication was written and designed by Bruce Annett. Free-lance artist and former LIT student John Moga conceived and rendered the publication's storyline and captivating and humorous illustrations.

LIT's publications competed with entries from 179 public or private colleges and universities. A total of 1,282 publications were entered by colleges or school districts in various categories this year, according to NSPRA. This is the third consecutive year that LIT publications have received awards in various national competitions sponsored by NSPRA, and the Council for Advancement and Support of Education. □

MSPE announces awards

The Michigan Society of Professional Engineers (MSPE) is calling for entries for its Joint Practice Division awards program.

An outstanding project and an outstanding engineer will be named in each of the Society's five practice divisions: construction, education, government, industry, and private practice.

Firms, clients, organizations in allied industries, MSPE chapters or members, or individuals are encouraged to submit entries. Engineering accomplishments solving environmental problems, traffic congestion,

new products through research and development, or other worthy projects that contribute to meeting a social need are desired. Deadline for entries is December 1.

Entry forms are available from MSPE headquarters, 215 N. Walnut Street, P.O. Box 10214, Lansing, MI 48901. □

Faculty and staff notes

H. Robert Farrah has joined LIT as an assistant professor of electrical engineering. A graduate of Massachusetts Institute of Technology where he earned a B.S.E.E. degree, Robert also holds an M.S.E.E. and an M.B.A. degree from Wayne State University. He was formerly a program manager with the Bendix Engineering Development Center.

Kenneth J. Farquharson, associate professor of mechanical engineering, accompanied a contingent of students to the 1981 Regional Student Conference of the American Society of Mechanical Engineering hosted by the student section at The Ohio State University, Columbus, OH, on April 3 and 4. Victor Schiavi represented the LIT student branch. The subject of his presentation was "Mustang Drivetrain Modification for Performance and Fuel Economy."

Craig J. Hoff has joined LIT as an instructor in mechanical engineering. He received a B.S. and an M.S. degree in mechanical engineering from Michigan State University. He has interned as an engineering trainee at Hamill Manufacturing in Washington, MI, and at Saab-Scania in Stockholm, Sweden. He was also a teaching assistant at MSU from 1979-81. Craig is a member of the Pi Tau Sigma, mechanical engineering honorary fraternity, and the American Society of Mechanical Engineers.

Keith K. Kesling has joined LIT as an assistant professor of mechanical engineering. Keith was formerly with the design staff at General Motors, and holds degrees from the University of Dayton and the College of the Dayton Art Institute. He has been on the part-time faculty at LIT since 1976.

Diane L. Nagelkirk has joined LIT's public and alumni relations staff. Her responsibilities will include assisting in the production and design of the College's publications for admissions, development, alumni relations, and student activities. She will also edit the 1982 Annual, *The L-Book*. A senior in LIT's School of Architecture, the Grand Rapids native earlier attended Calvin College. She formerly was employed as a student assistant in LIT's Development Office, and will continue pursuing her degree in LIT's evening program. □

Grads grab high salaries

The average starting salary for 1981 LIT engineering graduates hit an all-time high of almost \$23,000 according to a report released in August by the College's Placement Office.

Construction engineering graduates were the highest paid, with starting salaries ranging from a high of \$29,000 to a low of \$18,624. The average salary offer for the construction graduates was \$23,303. Electrical engineering grads were next with an average starting salary of \$23,126, ranging from a high of \$27,000 to a low of \$19,760. Mechanical engineering grads were a close third with a high of \$25,200, a low of \$14,500 (a graduate entering military service) and an average starting salary of \$22,020.

The continuing shortage of engineers was credited with the unusually high salary offers as well as for the fact that 94 percent of the companies which visited the LIT campus were looking for engineering graduates. Of this number, 23 percent were recruiting at LIT for the first time.

Most LIT graduates included in the report remained in Michigan, with 60 percent accepting positions in the Detroit or out-state areas. The rest of the students moved to a variety of other states including: 15 percent to Texas, 4 percent to Denver, Colorado, 3 percent to St. Louis, Missouri, and 2 percent to Washington, Ohio and California. □





Chairman cited by Milliken

Dr. Wayne H. Buell, ChE'36, has been cited by Governor William G. Milliken for long and dedicated service to education in Michigan.

A certificate of appreciation sent to Dr. Buell reads in part:

"His commitment to the pursuit of excellence has marked the lives of countless students who, in turn, have contributed their knowledge to the progress of this state and this nation.

"Wayne Buell has devoted nearly half a century of outstanding service to Lawrence Institute of Technology—as a student, as president and as chairman of the board. He is to be commended for his outstanding service to education in Michigan." □

Hromi elected president of national quality group

Dr. John D. Hromi, professor and chairman of LIT's mechanical engineering department, has been elected president of the 37,000-member American Society for Quality Control.

A nationally recognized expert and lecturer in the field of quality control, John has attended many international and national conferences on the subject (see *LIT Magazine*, v. 2, n. 4). He has served as the ASQC president-elect, treasurer,

and vice president for section affairs and on many of the organization's boards and committees. He is also a past chairman of the ASQC Chemical Division and Greater Detroit and Pittsburgh sections.

John received a doctorate in engineering from the University of Detroit. He also holds a B.E.E. degree from Clemson and a master's degree in mathematics from the University of Pittsburgh. Before joining the LIT faculty in 1976, John was employed by Ford Motor Company as a principal staff engineer and as manager of the Engineering Methods department. □

Davis is national JETS prexy

Dr. Stephen R. Davis, dean of the School of Engineering, has been named president of the National Board of Directors of

the Junior Engineering Technical Society (JETS).

JETS recognizes and encourages student interest in engineering, technology and science. Currently, there are over 11,000 student members and 579 active chapters in the nation's high schools. Each year thousands of young people participate in JETS-sponsored aptitude tests and competitions. LIT serves as the testing and search center for JETS within the State of Michigan.

Because of the shortage of engineers, especially qualified women and minorities, JETS is supported each year by many major corporations which hope to increase the number of students interested in the field. Represented on the JETS Board of Directors are well-known companies such as Ford, General Motors, U.S. Steel, AT&T, Chase Manhattan Bank, Monsanto, Boeing and Exxon.

A graduate of the University of Illinois where he received his Ph.D. in Mechanical Engineering, he also attended Drexel University for his B.S.M.E., and the University of Delaware for his M.S.M.E. □



President Richard Marburger (left) receives congratulations upon his election as a trustee of the Aerospace Education Foundation from fellow trustee Leonard Isabelle; Colonel USAFR, dealership operations representative with Ford Motor Co.

Marburger elected to Foundation

Dr. Richard E. Marburger, president, has been elected a trustee of the Aerospace Education Foundation.

The Foundation is a private non-profit organization founded in 1956 at the request of educators who sought an organized way to gain more knowledge about technological revolutions in aerospace development and a way to bring this information to the nation's young people. Senator

Barry M. Goldwater (R-Ariz.) is chairman of the Foundation's Board.

Dr. Marburger has served as LIT president since 1977. He is also immediate past-president of the Engineering Society of Detroit and is currently president of the Metropolitan Detroit Science Teachers Association. In addition, he serves on the board of the Business/Education Alliance, Inc. and is an LIT trustee. □

New architecture programs announced for high school students and adults

Two special weekend programs are scheduled this spring for high school juniors and seniors and also adults interested in the fields of art/design, architecture, and interior architecture.

LIT's School of Architecture is sponsoring the programs for 16 Saturdays beginning February 6 through June 5, 1982. Formally known as the Pre-College Program for high school students and the Weekend Design Discovery Program for adults, they allow participants to elect one, two, or all three of the courses in each field. "Basic Design" and an "Art and Architecture Seminar" will be offered in each field. Students may also choose a course designed specifically in their field of interest — "Visual Communications" in architecture, "Drawing and Composition" in art/design, or "Interior Architecture/Interior Design" in interior architecture.

A wide range of lectures and museum and gallery visits, as well as a field trip to LIT's Frank Lloyd Wright-designed "Affleck House" are planned for the participants, according to Harold Linton, associate professor of architecture and coordinator of both programs. Classes will be taught by the LIT architecture faculty and are designed for creative exploration and personal growth.

The Pre-College Program gives talented and motivated high school students an opportunity to advance their interests and abilities and helps them discover their own aptitude for studying fine arts or architecture at the college level. This is the fourth year for the program and many of the previous participants are now enrolled in colleges and universities throughout the midwest.

Admission in the Pre-College Program is limited to those high school juniors and seniors with a "B" average who otherwise meet the standards of admission to the College. College credit toward a bachelor of science degree in architecture or interior architecture will be awarded upon successful completion of the course with a grade of "C" or better.

A portion of the cost of presenting the Pre-College Program is being

underwritten by DMI Industries, Tony Horne, president.

The Design Discovery Program, new this fall, is open to all adults who have not been previously accepted to the LIT

School of Architecture and who have not taken architecture courses at the College. Candidates seeking credit toward a degree must make application to the College and be successfully admitted to the particular program. College credit toward the bachelor of science degree in architecture will be awarded upon successful completion of the courses with a grade of "C" or better.

For tuition schedules and additional information, contact LIT's Admissions Office at (313) 356-0200. □

Alumni Association members can now receive Avis rental discount

Alumni Association members are now eligible for a 40 percent discount on rental cars from Avis, Association Director Roger Shtogrin, IM'61, announces. The new benefit was arranged by the Alumni Office and could save members thousands of dollars annually worldwide.

The new program offers members:

- Continental U.S. — 40% off normal time and mileage rates.
- Continental U.S. — 6% off commercial rates. This rate includes 100 free miles per day and may often be lower than time and mileage rates. (Avis will calculate the lowest rate.)
- International — 20% off normal time and mileage rates.

"The new Avis program is just one of a growing package of merchandise and service discounts available to LIT Alumni Association members," says Roger. "The program, now in its seventh year, includes everything from purchases of automobiles, trucks, boats, luggage, carpet, paint, toys, drapes, art and office supplies, jewelry and audio equipment, to such services as carpet and furnace cleaning, and construction. It's a real incentive to join!"

Graduates can join the Association by making a contribution to the College through LIT's Development Office. Discount details and an Association membership card is then sent back by return mail.



The DeLorean sports car, one of the most eagerly anticipated new automobiles in history, is now rolling off alumnus John Z. DeLorean's, IE'48, assembly lines in Northern Ireland. The car features a number of innovations, including a stainless steel skin over a glass reinforced plastic underbody.

DeLorean Motors photo



Kresge challenge met: LIT receives \$500,000

An intensive year-long solicitation effort and the resulting commitments and gifts of alumni and other friends of Lawrence Institute of Technology has enabled the College to meet the conditions of a \$500,000 challenge grant from the Kresge Foundation of Troy, MI. The gift is one of the largest ever received by LIT.

In July of 1980 the Kresge Foundation offered LIT the challenge grant to help fund LIT's new School of Management Building, currently under construction. Payment was conditional upon LIT raising the balance required to complete the project within one year. In the ensuing twelve months more than \$2,800,000 was either received or pledged. That, along with the commitment of certain LIT resources, enabled the College to meet its challenge goal.

LIT's five year, \$12.5 million Campaign, "Sharing in Excellence," was launched in December, 1979. The Campaign will fund construction of LIT's new Management Building, which will also house a new central library and campus dining facilities, a Campus Affairs and Activities Center, and alterations.

"The Kresge Foundation's generous gift helps assure a future of excellence for our students," said Dr. Wayne H. Buell, ChE'36, chairman of LIT's Board of Trustees. "Just as important, the challenge grant served as an extra impetus for others to consider commitments to LIT's Capital Campaign. We are truly appreciative of the Foundation's tremendous support, and for all the hard work our volunteers provided."

"The Campaign total now stands at over \$10 million," said Lewis C. Veraldi, ME'68, general chairman of the Campaign and vice president, Ford Motor Co. □

Alumni giving receives recognition

Increases in the amount and percentage of alumni giving at LIT have been recognized in a national incentive awards program sponsored by the Council for Advancement and Support of Education (CASE) and United States Steel Corporation.

LIT qualified as a finalist in the program, now in its 22nd year, which recognizes institutions and their alumni that have made significant and successful commitments to encourage private voluntary support to education. Finalists must show at least a 10 percent improvement in the number of alumni donors and at least a 25 percent increase in the overall dollar amount given between 1978-79 to 1979-80. In LIT's case, the number of alumni donors jumped from 397 to 600 and the dollar amount jumped from \$52,837 to \$156,501.

"The generous and increasing support of Lawrence alumni has been a key factor in the success of LIT's fund raising programs," said G. Robert Harrington, vice president for development. "We are deeply grateful for their commitment, and share their pride in their College's educational leadership," he added.

This year's first place winner in LIT's category was Rose-Hulman Institute of Technology. □

New tax laws encourage gifts in 1981

The Economic Recovery Act of 1981, recently signed into law by President Reagan, makes fundamental changes to the tax system which will have a significant impact upon the financial strategies of individuals and businesses.

Tax advisors are suggesting that individuals paying high tax rates consider year-end tax planning to postpone income and generate deductions. Charitable contributions to Lawrence Institute of Technology in 1981 may return



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substantially greater tax benefits than the same deductions in later years. The contributions may be in the form of cash or appreciated securities and property.

Consult your tax advisor and/or call LIT's Development Office at (313) 356-0200. □

Presidents Club enjoys Ford Home visit

More than 100 members of the LIT Presidents Club enjoyed a relaxing afternoon at the elegant Grosse Pointe Farms home of Edsel and Eleanor Ford on Sunday, May 17.

Members enjoyed visiting with their friends while strolling through the Drawing Room, Great Gallery, and other rooms of the elaborate Ford estate.

Dr. Wayne H. Buell and Dr. Richard E. Marburger, chairman and president of the College, respectively, gave brief talks praising the tireless work of campaign volunteers and the leadership gifts made by members of the Presidents Club.

Roger Shtogrin, IM'61, Presidents Club president, also presented remarks, and announced the 1981-82 Club officers and directors. Besides Roger, they are Alvin R. Prevost, ArE'51, vice president; Stephen R. Davis, secretary/treasurer; and directors David E. Fillion, EE'76; Arthur L. Kelley, ME'47; Victor L. Kochajda, EE'52; Calvin F. Opperthausen, EE'51; Bruce R. Polkinghorne, ME'50; and Clifford N. Wright, ArE'41. Returning to the board after a year's absence is Frank E. Noggle, ME'70. Director Robert J. Schlaff, IM'62, resigned last December, as he moved out of state.

Righting a Wright

By Bill McDonough

Reprinted from The Tech News LIT student weekly

Eight LIT students in the employ of Jack Armstrong, director of campus facilities, found themselves hard at work over the summer restoring a masonry retaining wall adjacent to the driveway at the College-owned Affleck House. Affleck House, designed by world-renowned architect Frank Lloyd Wright in the late 1930s, was donated to the College in 1978. It is in Bloomfield Hills.

The building was constructed in 1941. Since the driveway was built on the slope of a hill, a retaining wall was necessary to keep it from eroding away. Unfortunately, inadequate drainage allowed large amounts of water to build up in the soil on the uphill side of the wall. Over the years, this problem, coupled with the fact that the wall was constructed with no steel reinforcing, caused a section of the wall to collapse early last spring.

The students, after spending a day or two acquainting themselves with the site and the task at hand, dove right in and attacked the job with great enthusiasm.

"These eight students: Juan Angel, Fred Bartlett, John Boomer, Bob Goffney, David Johnson, Jim Oliver, Randy Turnbull, and project supervisor, Rob Dornboss, really did a fantastic job, and I'd recommend any one of them to any potential employer," Mr. Armstrong said.

The process of restoring the wall began by tearing out the original wall and excavating the site. The next step involved building the forms for the concrete and placing the reinforcing steel. Concrete was then poured, forming the basic structure of the wall. Drain tile was installed to prevent the same water build-up which was blamed for the failure of the original wall. The student workers then proceeded with a backfill operation and completed the project by assisting a mason, who rebricked the exterior portion of the wall so that it would match the original as closely as possible.

The drawings from which the restoration was done were provided by Dale Jerome, a junior in the architecture program.

In addition to re-constructing the retaining wall, the eight man task force also tore out an old boiler and readied the house for the installation of a new gas fired boiler system.

Happily, both employer and employee are pleased with the past summer's work. The feelings of the students were summed up by David Johnson, a student in the mechanical engineering program, who said, "I learned more this summer than I have ever learned."

Editor's note—Tours of the Gregor S. and Elizabeth B. Affleck House may be arranged by contacting the LIT School of Architecture. A \$2 per person charge helps finance the continuing restoration and maintenance of this architectural treasure. □



The completed retaining wall blends right in.



Retaining wall problems aside, Affleck House is surprisingly fit for a 40 year old home when compared to the similarly priced (when new) tract homes of the period. Wright's mastery of form and space make it exceptionally versatile for living and entertaining.

Alumni Notes



1933-59

Robert W. Militzer, ME '42, has been appointed vice president, advanced products for Ex-Cell-O Corporation in Troy. He was formerly vice president and general manager of Ex-Cell-O's Micromatic Division. He is a member of the LIT Presidents Club.

Edward J. Donley, ME '43, was prominently featured in *The Seattle Times* for his personal approach to on-campus recruiting of graduates for his company, Air Products & Chemicals, Inc. Ed may be the only chief executive for a major corporation who personally recruits on campus for executive trainees. He now has time to visit only three or four colleges a year but he firmly believes that business success depends on getting and keeping good people.

Samuel Schugar, PE, ME '43, has been reappointed by Governor William Milliken to the State Elevator Safety Board for a term expiring in 1984. Samuel is chief safety engineer for the City of Detroit buildings and safety engineering department.

William Walton, CivE '48, has been named an associate of Camp Dresser & McKee Inc. (CDM) environmental consultants. A ground-water specialist and geohydrologist, Bill currently serves as the technical director for several CDM projects including: the Delaware River Basin, the rehabilitation of a municipal well field in Santo Domingo, Dominican Republic, and the San Juan Basin study in New Mexico.

Prior to joining CDM, Bill was the director of

and professor of Geology and Geophysics at the Water Research Center at the University of Minnesota. The author of two books, *Ground-water Resource Evaluation* and *The World of Water*, Bill resides with his wife, Ellen, at Spring Lake in Mahomet, IL.

Harvey Charbonneau, IE '49, has been re-elected to the Linden Board of Education. He will serve a four-year term. Harvey recently retired as an instructor with General Motors Institute. He has two children and resides in Linden.

Eugene S. Kaczmar, IE '50, was granted special early retirement from Ford Motor Company in January. Gene was elected councilman, City of Madison Heights, in April.

Delores Pawlak, wife of **Edward L. Pawlak**, ME '50, is looking for a 1950 yearbook to give to her husband as a surprise Christmas gift. If anyone has a copy they would like to sell or donate to Mrs. Pawlak, please contact her: 33977 Carl Drive, Livonia, MI 48152, (313) 477-7099 (home); 843-0823 (work).

Gerald W. DeLoy, ME '52, has been named engineering manager of the Huron Tool and Manufacturing Company. Gerald has held engineering management positions with the Brass Craft Manufacturing Co., Mueller Brass Co., and Anaconda Co. He and his wife, Helen, have five children and reside in Port Huron.

David F. Moranty, IM '59, has been elected to a four year term on the Wayne-Westland Board of Education. Dave has spent 13 years working in school activities in the Wayne-Westland district. He and his wife, Joan, have one son and live in Wayne.

News for Alumni Notes

Use the space below to send us news about you or your LIT friends. Tell us about honors, promotions, marriages, appointments and activities. Moving? Please send us your new address.

Name _____ Major _____ Class Year _____

Street _____

City _____ State _____ Zip Code _____

Check here if this is a new address

News notes:

Send to: Director of Public and Alumni Relations, Lawrence Institute of Technology, 21000 West Ten Mile Road, Southfield, Michigan 48075.

1960-69

Kenneth J. Wuepper, IM'60, is living a boy-hood dream come true as executive director of the Temple Theatre Arts Association in Saginaw. He's leading a fund drive to preserve and purchase the theatre, once billed as the showplace of Northeastern Michigan, according to the Saginaw News. Ken has performed all jobs in the theatre since graduation and single-handedly restored the Temple's original Barton pipe organ. He is an instructor at Buena Vista High School.

Richard G. Marshall, EE'61, was admitted to the degree, Master of Divinity by The Episcopal Theological Seminary of the Southwest in Austin, TX, on May 26th. After his ordination in Huntsville, AL, Dick will take charge of St. Andrew's Episcopal Church in Sylacauga, AL. Prior to attending the Seminary, he lived in Huntsville, where he worked on the Saturn/Apollo and Space Shuttle programs. Dick and his wife, Jo, have a daughter.

William A. Drawe, ME'62, has been named vice president of the mid- and high-volume engineering department of Xerox Corporation's Reprographic Technology Group. He is responsible for developing product strategies and managing technical activities in the design

of copiers and duplicators and holds two patents in automatic duplex copying and color reproduction. Bill, his wife Marlene, and their five children live in the Rochester, NY suburb of Penfield.

Robert J. Schlaff, IM'62, has been appointed vice president of mortgage and finance operations for Wood Bros. Homes, Inc. and its subsidiary, Guerdon Industries, a major builder of manufactured homes. Bob will be responsible for financial and mortgage activities of all Wood Bros.' regional offices in Colorado, Texas, Arizona, New Mexico, and Nevada as well as at Guerdon Industries' mobile and modular housing plants located in 18 cities throughout the United States.

Prior to joining Wood Bros., Bob was senior vice president and manager of the mobile home division of Advance Mortgage Corp., a subsidiary of Citicorp in Southfield, and a director of LIT's Presidents Club.

Harold R. Varner, FAIA, ArE'65, has been elected to the College of Fellows of the American Institute of Architects. Fellowship is a lifetime honor bestowed for notable contributions to the profession. Harold is the vice president of Sims-Varner & Associates, Inc. He was cited by the AIA for his involvement with design projects development and evaluation of solutions to urban problems requiring professional skills and socio-economic sensitivity. Harold received an LIT alumni achievement award in 1971.

Douglas Rouse, ME'66, has been named plant manager of The Cross Company's new plant in the Port Huron Industrial Park. Doug began his career with The Cross Company as an engineer in sales and then progressed to project engineer, sales engineer, engineer manager, and manufacturing manager. He and his wife, Elizabeth, reside in Lexington. They have three children.

Carson E. Brown, ME'68, has been appointed a supervisor of product engineering-truck chassis in General Motors Truck and Coach Division. He was formerly a supervisor-truck design with the same division.

Thomas E. Hansz, AIA, Ar'68, has joined Caudill Rowlett Scott (CRS), Inc., as project manager. CRS is a Houston-based architecture, engineering, and planning firm. Prior to joining CRS, Tom headed his own architectural firm in Birmingham, MI.

Enzo A. Fanelli, IM'69, has been promoted to supervisor of model development for American Natural Resources in Detroit. In his new post, Enzo will be responsible for the identification and development of strategic planning, financial aid, and operational models for the American Natural Resource System. He and his wife, Terri, reside in Grosse Ile with their son.

Frank N. Gaddy, Jr., IM'69, has been promoted to vice president and senior account officer in the business finance division of Manufacturer's National Bank of Detroit. Prior to this, Frank was an account officer and served as cashier and secretary of the board of Manufacturer's Bank of Livonia.

Norman R. Hughes, Ar'69, was the Republican candidate for U.S. Representative (8th District) during last November's election.

James M. Johnson, IM'69, has been elected to the Grand Blanc Board of Education. Jim, the president of Otto-Liebold, a wholesale meat company, is a 13 year resident of Grand Blanc. He and his wife, have two daughters.

Thomas Weir, CLU, IM'69, has been appointed director of special marketing products at American United Life. He has been in the insurance industry since 1962, having been an agent trainee, supervisor, assistant manager, and agency manager prior to joining AUL.

1970-79

John Dziurman, AIA, Ar'70, has relocated his architectural firm, John Dziurman Associates, Inc., Architects/Planners, into a landmark Victorian home in Rochester. John and his eight-member firm have begun renovation of the two-story house, built in 1859. Exterior renovation and landscaping will follow the theme and guidelines established for this historic section of downtown Rochester.

John entered private practice in 1974 and with his firm has won fourteen design awards since 1976. He received an LIT alumni achievement award in 1980.



1981-82 Alumni Association Board The Alumni Association Board of Directors paused during the annual business meeting at Plum Hollow Golf Club in June. Front row left to right are: Hank Kovalsky, ME'62; Roger Avie, IM'68; and Chuck Koury, Ma'73. Standing left to right are: Ted Milek, ME'51; John Fawcett, ME'43; Hank Tamagne, ME'51; Henry Selewonik, IM'57; Paula Stofer, Hu'79; Marilyn Lisk, MT'69, IT'70, IM'73; and Dick Darbyshire, ME'54, EE'61. Tony Spadafore, IT'56, (not pictured) is a newly elected director. Re-elected directors are: Ted Milek, Henry Selewonik, and Henry Tamagne. Directors not pictured are: Robert Heintz, ME'51, EE'61; Nicholas Sarzynski, IM'64; Roger Shtogrin, IM'61; and Jim Storfer, IM'70.



Drawe '62



Schlaff '62



Hansz '68



Engel '70



Varner '65



Jeffrey '79

Larry J. Engel, ME '70, has been named to the newly created position of vice president, engineering and construction, for Michigan Consolidated Gas Company. Larry will be responsible for all corporate construction projects, engineering, gas storage, and drilling operations. He joined Michigan Consolidated in 1970. In 1971, he was named to the marketing staff as a project engineer and became manager, residential and commercial gas service in 1975. Larry served as director of operational planning from 1976 until being named director, operations research, in 1978. In 1979, he was named director, production, transmission and storage, and held that position until being named vice president. He is a member of the LIT Presidents Club.

Dan Krause, PE, EE & IM '70, has been appointed president of Engineering Systems Associates, a consulting and computer systems firm. ESA specializes in analog and digital process control systems for the industrial and municipal market. The firm also provides training programs, systems analysis, and operation/maintenance manuals for various systems. A registered professional engineer, Dan has also recently been appointed to the West Bloomfield Construction Appeals Board.

Giles Ziolkowski, IM '70, has accepted a position as advertising manager at Hydromation Company of Livonia. Giles and his wife, Juli, are expecting their first child in September.

Richard F. Czubaj, IM '71, field examiner for the National Labor Relations Board, received his J.D. degree from Chase College of Law, North Kentucky University.

Paul V. Rivetto, AIA, Ar '71, has been appointed administrative officer in the property management division of the National Bank of Detroit. Working as design manager, Paul is responsible for providing architectural services for building projects undertaken by the bank.

Andrew Kujawiak, ME '72, has been appointed a supervisor of product engineering-truck chassis in the General Motors Truck and Coach Division. He was formerly a supervisor-truck design with GMC.

Rodney C. Nofs, AIA, Ar '72, has been granted membership in the American Institute of Architects by its Board of Directors. Rodney has been assigned to the Detroit Chapter of the AIA and the Michigan Society of Architects effective in May.

Lee Kirkpatrick, IM '73, has been selected as the Coastal Valleys Chapter of the American Institute of Industrial Engineers' "Engineer of the Year." Lee is plant manager for American Heyer-Schulte in Goleta, CA. He was chosen for the award on the basis of his proven ability and success with "grass roots industrial engineering" including his use of techniques and principles which reduced costs and improved productivity in excess of 60 percent.

Thomas G. Farris, IM '74, recently joined Gil-Flex Rental Division of Flex-Van Corporation in Pittsburgh, PA, as a branch rental manager. He is responsible for marketing and operation

of a semi-trailer rental fleet. Tom was previously employed by T/M Rental Division of Trailmobile in Glenshaw, PA.

John N. Baker, Ar '76, married Sarah J. Buhr this past spring. He works for the Taubman Company. The couple reside in Summit, NJ.

Michael L. Hammond, Ar '77, BA '80, and Susan E. Roelant were united in marriage May 16. Mike is employed by Forum Architects in Toledo, OH, where the couple will make their home.

Lorne C. Johnston, Ar '77, received his professional registration from the State of Michigan. Lorne has been employed by Ellis/Naeyaert/Genheimer Associates, Inc. since 1979.

Ronald W. Herzog, Ar '78, received his professional registration from the State of Michigan. Ron has been employed by Ellis/Naeyaert/Genheimer Associates, Inc. since 1978.

Robert E. Hunter, BA '78, has been promoted to senior associate engineer in planning and industrial engineering at IBM, Endicott, NY. Bob joined IBM in July of 1978, and since then has held numerous assignments in advanced circuit packaging operations.

Gilbert C. Quick, Jr., ME '78, has been promoted to manager of advance product engineering for The Budd Company Stamping and Frame Products. Gilbert joined Budd in 1978 as a product engineer at the Detroit plant. He and his wife, Loretta, have two children.

Michael, Ar '78, BA '79, and **Cynthia, Ar '78, BA '80, Rable** have both left Smith, Hinchman & Grylls to take on new positions. Michael is now a project engineer with Turner Construction Company and is currently working on the Dodge Main demolition project. Cynthia has joined Sims-Varner & Associates as marketing director and is also involved in architectural and interior design. Michael and Cynthia recently moved from their home in Rosedale Park to another home on 1 1/2 acres in Farmington Hills.

Jau Cheung, ME '79, received his master's degree in mechanical engineering from California State University at San Jose and is now living in Canada.

Timothy J. Jeffrey, BA '79, has been named trust officer in the personal trust department of Mercantile National Bank in Dallas, TX. Before joining Mercantile, he was a financial analyst with Royal Bank of Canada. Tim received his M.B.A. in finance and accounting from Baylor University in 1980.

1980-81

Michael J. Mageau, Ar '80, recently received a Special Award of Merit for Creativity in the 1981 Eastern Regional Competition sponsored by the Institute of Business Designers.

Robert S. Mihos, IM '80, recently accepted a

position as building engineer manager of the FTD Association International Headquarters in Southfield. Bob's responsibilities include the technical operation of this modern facility along with coordination of its engineering functions related to the building system. He and his wife, Denise, live in Clarkston.

Donn Roberts, Ar '79, BA '80, has joined a new architectural firm in Jackson, headed by George J. Covalle. He will be employed as an intern architect.

Nathan L. Harvey, Ar '80, has been awarded the Minoru Yamasaki and Associates scholarship at LIT. The scholarship is funded by the architectural firm and is given each year to a single deserving student entering the fifth-year professional degree program in LIT's School of Architecture.

Mary Paglia, BA '81, recently attended the GM Women's Club's fifth annual election dinner with President Marburger. Mary, who graduated summa cum laude in June, was LIT's first recipient of a Women's Club scholarship.

William J. Schultz, CE '81, has joined Soil and Materials Engineers, Inc., a geotechnical and construction materials consulting firm in Livonia, as a project engineer for roofing consultation. His responsibilities include technical consultation for the design, installation, maintenance, and rehabilitation of roofing systems for SME clients throughout the country.

In memoriam

Leo G. Valmassy, EE '37, of Sepulveda, CA, October 10, 1979. He retired from Lockheed-Burbank after 22 years in April of 1979. He is survived by his wife.

Lowell Bernhardt, ME '47, of Livonia, October 31, 1980. He was retired from Ford Motor Company where he was supervisor, advanced manufacturing engineering development, Electrical and Electronic Division. His son, Larry, is a 1979 mechanical engineering graduate of LIT.

Albert Damiani, ME '48, of Royal Oak.

Alexander A. Rymar, ChE '50, of Palmetto, FL.

Marvin M. Smith, EE '51, of Highland Park, May 17, 1981.

Steven C. Filus, ME '53, of Rochester.

Hazel I. Quick, P.E., Hon.D.E. '59, of Gaylord, the State's first female registered engineer and the 1959 recipient of an honorary doctorate from LIT, August 29, 1981. Burial was in Ortonville.

James E. Angus, Jr., EE '64, of Warren.

Kenneth J. Luzynski, ET '64, of Pueblo West, CO.

Norman L. Williams, ME '72, of Goodrich.

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ADDRESS CORRECTION REQUESTED

Coming up!

Addresses by speakers listed below are open to students, alumni, and friends of the College without charge. However, because speakers occasionally must be rescheduled, visitors are encouraged to call the Public and Alumni Relations Office to confirm attendance, (313) 356-0200.

November 3 *Interior Architecture/Interior Design: An Overview*, Leonard Else, asst. professor of architecture. LIT Arch. Aud.; noon.

November 5 *The Ten Commandments of Design*, Ralph Rapson, head, University of Minnesota School of Architecture and principal, Rapson Architects. LIT Arch. Aud.; 7:30 p.m.

November 10 *Interior Architecture Projects at Ford and Earl Design Associates*, Jerry Peters, principal, Ford and Earl. LIT Arch. Aud.; noon.

November 24, 25 *Registration*, Day College, second term. Classes begin November 30.

December 1 *Tensile Structures and Other Work*, Kent Hubbell, designer of tensile structures throughout the United States. LIT Arch. Aud.; noon.

December 8 *Lighting Design*, Gary Steffy, lighting specialist, Smith, Hinchman & Grylls Assoc., Inc. LIT Arch. Aud.; noon.

December 10 *Hugh Stubbins Architecture: From Then to Now*, Hugh Stubbins, architect, academician, and president, Hugh Stubbins & Associates. LIT Arch. Aud.; 7:30 p.m.

December 15 *Renaissance Archeology: The Case of the Missing Palace*, Dr. Susan L. Caroselli, from the department of publications, Detroit Institute of Arts. LIT Arch. Aud.; noon.

January 5 *Calligraphy, Drawing Becomes Writing*, Lothar Hoffman, assoc. professor of design, Center for Creative Studies. LIT Arch. Aud.; noon.

January 12 *What Does Facility Management Contribute?*, David Armstrong, facility management specialist. LIT Arch. Aud.; noon.

January 14 *Marketing in the Eighties: Pitfalls & Pluses*, Gerre Jones, marketing, public relations and editorial consultant, author, and educator. LIT Arch. Aud.; 7:30 p.m.

January 19 *Architectural Photography*, Balthazar Korab, nationally recognized architectural photographer. LIT Arch. Aud.; noon.



Happy Fiftieth!

A stylized pentagon has been chosen to graphically represent LIT's Fiftieth Anniversary Jubilee in 1982.

The five-sided figure symbolizes LIT's five decades of educational excellence and five schools. Its bud or flower-like appearance represents academic and personal growth. Annette Goze, a free-lance artist, executed the design based on concepts developed by Bruce Annett, public and alumni relations director.

A number of special events will be held during the January 1-December 31, 1982 Golden Jubilee celebration period. Watch for details.

Use of the College's official seal, adopted in 1932, will continue concurrent with the use of the special Jubilee symbol. □

January 20, 22, *Registration*, Evening College baccalaureate programs, second term. Classes begin January 25.

January 21, 26 *Registration*, Evening College associate programs, second term. Classes begin January 28.

January 26 *More than Masterpieces*, Patience Young, department of education, Detroit Institute of Arts. LIT Arch. Aud.; noon.

February 2 *An Introduction to Planning*, Phil Dondero, Oakland County Planning Commission. LIT Arch. Aud.; noon.

February 4 *Where We've Been and Where We're Goin'!*, Vincent Kling, architect, and senior partner, The Kling Partnership. LIT Arch. Aud.; 7:30 p.m.

February 9 *Islamic Architecture and Interior Design*, Andrea Belloli, chief editor, from the department of publications, Detroit Institute of Arts. LIT Arch. Aud.; noon.

February 16 *Comfort & Energy Conservation: Compatible?*, Joseph Olivieri, professor of architecture. LIT Arch. Aud.; noon.

March 9 *Recreation Closer to Home*, Harriet Saperstein, principal planner, Recreation Department, City of Detroit. LIT Arch. Aud.; noon.

March 11 *Geotecture*, Patrick Horsbrugh, architect, author, researcher critic, professor of architecture at Notre Dame, chairman of the board, Environic Foundation International. LIT Arch. Aud.; 7:30 p.m.

March 16 *The Young Architect, Walking Backwards through the Eighties*, Ralph Davis, professor of philosophy, Albion College. LIT Arch. Aud.; noon.

March 23 *Preservation and Historic Architecture*, Richard Frank, architectural historian. LIT Arch. Aud.; noon.

March 25 *Synthesis of a Gentle Architecture*, Lawrence O. Booth, architect, sculptor, president, Booth/Hansen & Associates. LIT Arch. Aud.; 7:30 p.m.

March 30 *Works in Progress*, William Kessler, architect, owner, William Kessler Office. LIT Arch. Aud.; noon.

April 24, 25 *All-campus Open House*, 11 a.m.-5 p.m. Saturday, 12 noon-5 p.m. Sunday.

April 24 *Alumni Dinner Dance/Reunion*. Details to come.