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What’s the difference?

Keystone vs. Gravel
SPECIAL LEGISLATIVE ISSUE

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Cover Photo by
Phillip MacMillan James
Office Planning is usually considered when you add staff, remodel space or construct a building. At Business Furniture Incorporated your office plan will be given priority. That means, first, organization of space for a smooth running office, then the economy of good design and the recommendation of proper furnishing. You see, at BFI planning is more than the selection of furniture, it's a way of doing business.
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PELLA CLAD windows and doors have a protective aluminum covering on all exteriors that eliminates outside painting. A highly durable baked-on acrylic coating assures low maintenance and attractiveness.
“There ought to be a law on that subject.” At one time or another we have all heard that expression. The implication is that if a law is needed, a law ought to be provided. Considering the volume of legislative law already on the statute books, it is perhaps fortunate that the process of developing new laws is a bit more complicated than moving directly from the community’s “felt” needs to a final legislative enactment. Even a brief description of the legislative process will suffice to illustrate just how complicated the procedure is which transforms community needs into state law.

Legislators and other public officials are informed of society’s needs by their constituents. The individuals and organizations comprising a legislator’s constituency bring problems and needs to a legislator’s attention in various forms — vague ideas, specific objectives and proposals and even proposed legislation already drafted. If the legislator is persuaded that the need merits legislative action, the process from need to law is started.

When a need suited to legislative response is identified, a bill can be drafted. It need not be and usually is not drafted by a legislator, who is a policy maker rather than a draftsman. In Minnesota a bill-drafting service is provided for legislators and other public officials by the Revisor of Statutes, whose office must approve all bills as to form before they are introduced in the legislature. The bill itself may be drafted by the revisor’s staff of attorneys or, subject to the revisor’s review and approval, by virtually anyone else. It is advisable, however, to leave the actual writing of bills to those with training and experience in legislative drafting who can work effectively from clear and concise instructions as to the purpose of and need for legislation. The person giving such instructions must have clearly in mind what he wants to accomplish by legislation, otherwise a good bill is an unlikely result.

Anyone wishing to promote legislation, of course, can do so but only legislators or other public officials may present bill requests to the Revisor of Statutes. Moreover, only members of the legislature may introduce bills, once approved by the revisor’s offices, to the legislature. Thus an essential step in promoting an idea to law is convincing one or more legislators to sponsor a bill. This step is especially vital since influential legislators keenly interested in a bill are much more likely to procure passage than disinterested legislators.

Bills, originally typewritten, may be introduced in either the Senate or the House, except tax measures, which are introduced solely in the House. Upon introduction in either house, a bill is given a file number, is read aloud and is referred to an appropriate standing committee of the house in which introduced.

Committees meet regularly during the session and bulletin boards in the state capitol inform interested persons daily of the meetings. Such meetings are open to the public, who are given a chance to be heard. Many sub-committees are established to study particular matters under consideration and to report their findings to the entire committee. The committee’s treatment of a bill often dictates its fate. The action most desired by proponents of the bill is to have it sent (Continued on page 37)
Progress Through Legislation

By Rep. Fred Norton

The Minnesota Legislature has many far-reaching pieces of legislation before it this session. Almost every bill embodies a decision concerning Minnesota's progress in alleviating today's and tomorrow's problems. Growth projections, constituent wants and needs and costs to the taxpayers and the state, etc., have an effect on these decisions. The accuracy with which we consider all of the side issues and public attitudes has a direct bearing on the effectiveness of the legislation that is passed into law.

The new DFL majority has taken action in this new session to give the public a better chance to observe and affect the decisions of their representatives. New rules have been adopted that provide an unprecedented openness in the legislative process and make the legislature more responsive to the public.

1. The Rules Committee includes minority representation, and its meetings are open to the public for the first time.
2. Committee of the Whole votes are recorded for the first time.
3. The minority can make its own committee assignments for the first time.
4. For the first time disclosure of a legislator's potential conflicts of interest is required so the public may know what influences his voting.

The flexible session amendment which was adopted at the last election also gives the legislators more time to consider all of the issues. The committee meetings are now two hours long instead of one. In the first month of the session only 10 of the allotted 120 legislative days were used in comparison with 25 in the last session. The other days of the week are used for study and communication with constituents. Present plans are that 70 days will be used up this year and then 50 days will be taken in 1974 to finish up the session.

As of this writing party designation appears certain to pass and be approved by the governor within a few days.

Legislation which is likely to be of major importance when it comes up during the remainder of the session includes:

- No-fault Insurance
- Age of 18 as majority
- Compulsory motor vehicle inspection
- Handgun registration
- Increase in homestead credit
- An 11 percent increase in the renter tax credit
- Suspension of all reassessment of real property for the 1973-75 biennium and assignment of Tax Study Commission to study inequities of present system.
- Major increase (150%) in state funding for education of trainable retarded.
- Increase in basic school foundation aids of $176 million and adoption of governor's six-year plan for equalizing per pupil school expenditures.
- Increase in funding for training of health professionals.
- Increase in state support for regional development commissions for $150,000 to $800,000 in 1973-75; creation of Commission on Minnesota's Future to assess consequences of current policy and develop state growth and development policy.
- Appropriation of $4,000,000 to

(Continued on page 33)

Fred Norton, an attorney, represents District 65A, the Summit Hill and Summit-University area in St. Paul, in the House of Representatives and is chairman of the House Appropriations Committee.
A Tribute to Architectural Excellence

By Ed A. Sovik, FAIA

The Architectural Design Competition has been a highly respected tribute to architectural excellence for fifteen years. Through the Honor Awards Program, the Minnesota Society of Architects seeks not only to single out distinguished design, but also to bring public attention to the variety, scope, and value of architectural services, and their application to problems confronting the society today.

Careful consideration was given to 105 submissions by a distinguished jury. Projects were reviewed on an individual basis from photographs, slides, and plans.

After preliminary elimination, the jury (see page 25) came to Minnesota and visited each of the finalists and made the final selections. The jury awarded the following buildings:

**Honor Awards:**
- Hope Lutheran Church, Minneapolis
- Ralph Rapson & Associates, Inc., Minneapolis
- District Headquarter, Morris L. Baker Park Reserve, Maple Plain
- Douglas A. Baird Architects, Minneapolis
- Student Housing, Southwest Minnesota State College, Marshall
- Parker Klein Associates, Minneapolis
- Chapel On The Street, St. Olaf’s Catholic Church, Minneapolis
- Frederick Bentz/Milo Thompson & Associates, Minneapolis
- Paul H. Giddens Alumni Learning Center, Hamline University, St. Paul
- Hammel, Green & Abrahamson, Inc., St. Paul
- Gustavus Adolphus College, Fine Arts Building, St. Peter

**Merit Awards:**
- Remodeling and additions to existing building for use by Department of Psychology, University of Minnesota, Minneapolis
- Parker Klein Associates, Minneapolis
- Mound-Westonka High School, Minnetrista
- Hammel, Green & Abrahamson, Inc., St. Paul
- Center Green Townhouses in Jonathan, Chaska
- The Hodne/Stageberg Partners, Inc., Minneapolis
- Art Building, College of St. Catherine Fine Arts Center, St. Paul
- Hammel, Green & Abrahamson, Inc., St. Paul
- Saint John’s Episcopal Church, St. Cloud
- Hammel, Green & Abrahamson, Inc., St. Paul
- Lutheran Church of The Reformation, Minneapolis
- Hammel, Green & Abrahamson, Inc., St. Paul

What makes good architecture good? Architecture is good or bad or in between. What makes it so? Perhaps it is fruitful to consider that architecture, being a product of the mind and judgement of men, is therefore a reflection of human qualities and should be judged and valued as people themselves are.

When we formulate an opinion of an individual, it is often based upon his skill, technical competence, and ability to do a job or provide a service. Buildings can be judged in the same manner. Is it functional? Are its parts effectively and conveniently arranged and of proper shape and size? Are the chosen materials and the structural systems appropriate for the service they perform?

We also judge people by much more subtle criteria. We ask how they relate to their fellows. Architecture can also be so judged. How does a building relate to its site, and surrounding structures; does the project exemplify respectful contenance for total area design. How does it interact with people, aside from being a useful servant? Is its service gracious, generous? Does it attempt to dominate or manipulate the human element. What is its character? Is it phony, full of artifices, mannerisms and artificialities? Or is it authentic having laid aside ostentation, self-consciousness and pretense?

Buildings like people are sometimes timid, and dull while other times glamorous. If we set a high value on glamorous people we may also admire glamorous buildings but what we are really looking for in architecture as in an individual is greatness and beauty. Greatness in the sense that a person or a building combines high skill and sophistication with utter integrity, with strength and grace, with liveliness and serenity, self-assurance and humility, passion and discipline. Beauty, not always on face value but beauty in the sense when one feels that free human life has an ineffable and perhaps transcendent quality that gives it a particular nobility and joy.
Honor Award

Jury Comment

This is a very happy renovation. It seems to satisfy, in almost an idealistic fashion, all the requirements of an ingenious program. The existing structure is well respected and in some ways enhanced. The barn is still very much a barn but it now has attained a new dignity. The resurfacing of the barn with shingles and the tower with stucco, the perforating the walls, in a most direct and simple fashion, subtly suggesting the perforations of the existing structure or similar old structures, all add to an honest and exciting renovation. It is also much to the credit of the architect to have recognized the true beauty of the existing barn, especially in its internal structure and to have taken full advantage of this in recreating an interior that is warm and rich and respects in every way the quality of the original barn. The use of wood throughout contrasted only by the red carpet seems most appropriate.

Hennepin County Park Reserve District
Maple Plain, Minnesota
District Headquarters

Douglas A. Baird Architects
Minneapolis, Minnesota

(See page 27 for interior color photo)
Merit Award

Remodeling and Addition to Existing Building for Use by the Department of Psychology, University of Minnesota, Minneapolis, Minnesota

Parker Klein Associates, Architects, Inc.
Minneapolis, Minnesota
Jury Comment
The unity and subtlety of details and in the use of brick, recalling the corbelling of some of the older structure, is done with great finesse and contributes to a very strong sense of unity.

Description
This project represents the first stage in a 10-year development plan of Old Main Campus prepared for the University of Minnesota. The program required the staged remodeling of an existing five-story building and new construction to provide research and office facilities for the Department of Psychology.

The development plan involves reordering the existing systems of circulation, parking, land use and establishing a framework concept of visual form for this area.

The entire interior of the existing building was gutted leaving only the structural columns, floor slabs, stairs and elevator. The exterior brick used to re clad the existing exterior walls is the same brick applied to the addition which in turn matches brick on existing buildings in the area. The structural solution was the first use of story-height vierendeel trusses in the staggered truss system.
The Legislature and Metropolitan Planning

By Ted Kolderie

The 1973 session of the Minnesota Legislature is likely to move the Twin Cities region’s governmental structure to the point where it will be possible to develop this metropolitan area as a building is put together by a good architect/planner/developer team.

This would not have been everyone’s guess, even last fall, but the first weeks of the session clearly suggest that the men now in control do intend to get action and make coordinated urban development work.

The legislature will make relatively few substantive decisions. It will concentrate, rather, on a strengthening of the metropolitan agencies, which will then make the decisions.

The job of managing urban development is still infinitely complex — with the mixture of public and private sectors and the multitude of individual decision makers. The legislature’s effort will be to establish the Metropolitan Council as a kind of combination architect-general contractor, with other agencies, public and private, working under its direction much in the manner of sub-contractors on any building project.

Up to now the job has been hampered because some of the necessary agencies were not in existence. The Highway Department and the counties were “in place” — for road construction. The Metropolitan Airports Commission had been established. The private housing industry was functioning. The Metropolitan Transit Commission was beginning to get its program moving. And the Metropolitan Sewer Board had, of course, moved with great speed since its establishment in 1969.

However, there were gaps and, perhaps most important, a clear understanding about overall direction was lacking.

This year the legislature is likely to provide a program for the acquisition of major open space and a new agency (see page 16) to provide subsidized low- and moderate-income housing.

In addition steps will probably be taken to give each program the funding required over the next several years, at least. The legislature will clarify relationships to ensure that “sub-contractors” do, indeed, take their direction from the Metropolitan Council and some decisions are likely to be made on particular system plans, e.g., airports and transportation.

The principal remaining need for the Metropolitan Council — which cannot be delayed much longer — is to lay out the overall design: “What is going to be the shape of this urban region? What, precisely, are we building here?”

Open Space There should be major action this year. The Metropolitan Council and local governments have resolved the disagreements which prevented re-establishment of the Metropolitan Park District in 1971. The council will be authorized to lay out a plan for the protection of open space. In line with the council’s plan the state and the municipalities will establish standards restricting development on marshes, steep slopes, recharge areas, etc. The council will similarly designate those sites which are to be acquired for parks, with the counties doing the actual acquisition and development. The council will channel to the counties monies provided by the state.

Transportation This may be the biggest battle, with the MTC and the council proposing somewhat different plans. Both want to move rapidly to a system in which vehicles accommodating about 40-50 passengers would be moving through the built-up parts of the region on reserved rights-of-way. The MTC wants the central portion (about 35 miles) of this “fixed guideway” automated, with a modified rail system fed by buses. The council wants the fixed guideway to be a busway, arguing that the disadvantages of manual operation are offset by the opportunity to offer more single-vehicle, “no-transfer” service.

Airports The council has decided that the MAC should site a major new airport, if one is needed, in west-central Anoka County. The real test will come on legislation re-structuring the MAC. At present the 4-4 division between its Minneapolis and St. Paul members prevents it from responding to the council’s guideline.

Metropolitan Council Structure At stake here — in the redistricting required (and the subsequent appointment of new members), in the battle over direct election and in the debate over the council’s request for authority to name the members of the MTC and MAC — is the ability of the metropolitan structure to move smoothly over the next few years to implement its development program. Faced with the inevitable choice between leaving the special-purpose agencies substantially independent and placing them under the direction of the general-purpose Metropolitan Council, the legislature is likely to opt for the latter.

Property-tax-base Sharing The legislature in 1971 made an effort to soften the problems of “fiscal

Ted Kolderie is Executive Director of the Citizens’ League.

(Continued on page 50)
Discussions of a wide variety of public issues and problems at this time often seem to lead to a common conclusion — that we need a state Growth Policy. The implication is that more public control is needed over the amount and location of population growth. The decision to formulate a growth policy would also imply that three important preconditions exist.

- Minnesotans know and understand the present situation, from which a policy for the future must proceed.
- We are able to use our present knowledge and understanding to forecast how the present would be reshaped in the future, given any specific policies which might be adopted.
- We can evaluate and select the most appropriate of the policies before us and put them in force.

In fact, we might lack the understanding to do some of the job, and we may lack the data to do much of it. A conference only a few weeks ago at the Academy for Contemporary Problems brought together a number of long-time students of the process of settlement change to address such questions as these.

- Looking at the problems associated with metropolitanization of population, would a policy be likely to make any difference?
- In the light of what we know, does it make sense to talk about a population distribution policy?
- Is the question of “optimum size” for metropolitan areas particularly relevant?
- How does state and local tax policy affect patterns of metropolitan and non-metropolitan development?

To these one could add questions raised in a 1971 study of Minnesota.

- In any state investment policy, does decentralization from the Twin Cities carve the pie or kill the goose that lays golden eggs?
- What can be done to assure that public community plans consider private plans and constraints and to assure that private construction and development plans include, from the outset, public goals and plans?

One could reflect further on how we might use existing programs to promote a growth policy, if that were a serious goal. Certain federal agriculture programs or military expenditures could be prohibited from use where they would encourage sprawl or over-growth. Aids to education, welfare and health services could be used to stimu-

(Continued on page 39)

Dr. John R. Borchert is Director, Center for Urban and Regional Affairs, and Professor of Geography at the University of Minnesota.
The Architectural Profession Cares

By A. J. Wilwerding

The Minnesota Society of Architects has historically been concerned with the quality of the natural and the built environment and, through its Legislative Committee, constantly monitors proposed legislation. The committee's goal is to react in a positive, timely manner, alerting the legislature about aspects of this legislation which are of concern to architects both professionally and in their wider role as advocates for environmental quality.

Throughout the legislative session legislators will be contacted by architects who are members of the MSA Legislative Minute-man program. These men are active professionals who, through awareness and concern, have made a commitment to this program.

The purpose of the program is to acquaint the legislature with the views of the architectural profession on key planning issues and issues affecting the profession and the building industry. In addition, the MSA offers the services of its members in providing expertise, research and input on any of these issues.

It is the commitment of the architectural profession that once legislation is passed it will offer its services in providing further support and expertise.

The MSA believes that one of the foremost issues facing the 1973 legislature is the development of transit systems which will meet the needs of the 1980's and beyond. We believe that the development of improved transit systems should be given a high administrative priority in state government and that a State Department of Transportation should be created with a specific mandate to research, plan and develop improved transit systems. This department should carry the responsibility for all public transportation facilities in the state. Through such a department we can more effectively prepare statewide planning for a balanced transportation system, set priorities for this plan and more effectively implement the plan. Within this framework we would advocate a single transportation fund and would favor any reasonable proposal that would permit a portion of the dedicated gas-tax highway trust to be made available for other modes of transportation.

The American Institute of Architects, at its national convention of May, 1972, approved a national policy of growth for proposal to the Congress. We believe that the State of Minnesota should adopt a similar plan. At present, particularly in the metropolitan area, growth is proceeding on an unregulated basis. The MSA believes that the 1973 legislature should pass legislation requiring the development of a Statewide Policy of Growth and also a policy on comprehensive land use and planning.

The MSA supports the Metropolitan Council proposal calling for the establishment of a Metropolitan Housing Authority. We agree that the authority should not usurp the responsibility of local housing authorities but should serve to coordinate and enforce these activities to provide services to communities without such agencies.

Most of all, we hope that this will result in an increase in lower and middle income housing.

Other pending legislation on which the MSA has taken a position is listed below.

- Limitation on outdoor advertising — yes
- Elimination of any visual signs of public utilities — yes
- Experimental City — yes
- Weaver Bill — yes
- 4% sales tax on professional services — no

Public representation on State Boards — yes

Frivolous suits legislation — yes

This year, for the first time, many important floor debates and committee sessions of the legislature will be broadcast live on FM over KSJM (91.1 mcs), KSIR (90.1 mcs) and KCCM (91.1 mcs) for those unable to attend the sessions. This is a unique opportunity to get a greater understanding of legislative programs, and to follow the fortune of important bills.

Jack Wilwerding, president of Setter, Leach and Lindstrom, Inc., Minneapolis, is Chairman of the MSA Legislative Committee.
Honor Award

Chapel on the Street
St. Olaf Catholic Church
Minneapolis, Minnesota

Frederick Bentz/Milo
Thompson & Associates, Inc., Architects
Minneapolis, Minnesota

Jury Comment

This small downtown chapel is a fine example of "interior architecture." A very appropriate drama has been created in a simple, functional plan by the very sensitive handling of indirect light forms, intimate scaling of space and wood used with a consistently high quality of architectural detail. The "show window" treatment of the reverse side of the altar screen as "an announcement of the chapel to the motorist and pedestrian" is a particularly clever response to the client's request of a "clear and appropriate presence with no exterior remodelling."
Description

The architects were asked to design a chapel space outside the confines of a large center city church to serve the downtown user who prefers a convenient, personal and intimate facility for worship, meditation and meetings. Specific uses to be accommodated in the space were small and private weddings, funerals and baptisms which in the large church would create scheduling problems and which would be overwhelmed by an almost empty nave.

Special requirements and unusual conditions were that the chapel be designed to fit into a vacated bay of an existing two-story downtown office building which the church purchased and into which it had moved its administrative offices.

The church asked that no exterior remodeling of the building be undertaken because of the cost involved and because of its desire that the character of the office building be maintained. At the same time the architects were charged with the requirement that from the outside the chapel have a clear and appropriate presence.

The design solution provides a simple 900 square foot room conforming to existing walls. The floor is carpeted, with the remaining enclosing surfaces clad entirely with eight-inch-wide light oak boards laid diagonally. A semi-circular cut-out defines the sanctuary area and provides a focus. Three different lighting systems, used separately or in combination, provide flexibility in changing the character of the space.

The sanctuary furniture and the seating are designed as light and movable pieces to accept experimental arrangements for the liturgical requirements and to accommodate the variety of activities in the space.
A Metropolitan Housing and Redevelopment Authority

By James W. O'Brien

In 1973 the Minnesota Legislature will consider legislation which will make possible the creation of a Metropolitan Housing and Redevelopment Authority. If formed, the Metro HRA will become an operating arm of the Metropolitan Council and it will be able to function as an active housing authority in the metropolitan area, provided it has the approval of local government units. Through this agency the Metropolitan Council could provide a structure for coordinating the programming, planning and development of housing on a metropolitan scale and, in addition, could undertake actual development as well.

The Metropolitan Council, in an attempt to coordinate metropolitan scale housing objectives, has already initiated an effort to identify housing needs, to develop a housing allocation plan and to collect data on housing conditions. It seems, then, that a logical extension of this activity would be the formation of the proposed Metro HRA, which is intended to be a funded, operating agency with planning and technical staffs available to communities, developers and non-profit groups. The availability of these resources would then make it unnecessary for each and every local government unit to develop the particular knowledge and expertise that is required in order to take advantage of the various programs available. Almost certainly many necessary and many desirable development opportunities have been missed because local governments have not been aware of what could and could not be done and, in many instances, those which were aware lacked the required sophistication or incentive.

James W. O'Brien is a principal in the architectural firm of William /O'Brien, Minneapolis, and Chairman of the MSA Housing Committee.

Therefore, in addition to becoming an agency which could provide a now-lacking area-wide planning framework for housing, the metropolitan agency could become both the stimulus and the vehicle for the planning and development activities of many communities.

Although there is a great deal of support for the Metro HRA, there is also a great deal of understandable apprehension and direct opposition. A bill which would create this agency was introduced and passed in the Minnesota State Senate in 1971 but was not enacted and its success is not assured in the coming session.

A public hearing was held on December 7, 1972, regarding the Metro HRA and several concerns were expressed. Individual citizens are concerned that their voices will not be heard by an agency that functions above the community level and that community wishes and priorities will suffer in the hands of others. Even though the Metro HRA would not be able to function in a community without that community's approval, its policies would almost certainly have an effect on local policies and directions. For example, a local interest which does not conform with a stated Metro HRA goal may stand little chance of approval from a federal or state agency.

There also was a concern that a Metro HRA would be competing for already limited funds with existing, active, local HRA's and therefore would reduce their effectiveness. In addition a Metro HRA may have a problem in trying to review local HRA applications that are competing with Metro HRA applications. Inasmuch as the Metro HRA is intended to be both an areawide coordinating agency and also a substitute for a local housing authority, this is indeed a potential conflict of interest. Just how (Continued on page 42)
Towards Balanced Transportation

By George J. Scheuernstuhl

The balanced transportation concept — that is the utilization of each transportation mode to its best ability in coordination with other modes of transportation — has been heralded by transportation experts for at least the last two decades. Solomon, himself, could have not come up with a better answer to the urban transportation problem.

However, as in the case of many, if not most, planning efforts, the concept fails in the implementation stage. Instead of transit systems serving high density movement corridors, automobiles are utilized. In compact high density central business districts, where movement on foot is quite efficient, automobiles force their way. In low density suburban areas, where auto transportation is well suited, public transit services are being sought by certain segments of the population for a diverse set of reasons.

The outcome of such urban movement mode choices has been traffic congestion and the inefficient use of available transportation vehicles. Perhaps the greatest single factor behind the overwhelming choice of the automobile as the major urban transportation mode is the lack of restriction it places upon a person’s travel-making habits, and in most cases, the faster trip it offers. Increased popularity of this mode has placed greater demands upon highway facilities, and thereby has fostered freeway development. While many persons welcome freeway development in terms of movement, they staunchly oppose it in terms of its impact upon their neighborhood. In such a situation, mass transit becomes the answer to the impending threat of neighborhood destruction. (Of course the question of how to get the other fellow to use it is not addressed). This situation has led to great debates as to the most desirable type of mass transit system to initiate.

Lost sight of in attempts to answer this symptomatic treatment of the urban transportation problem is the basis for movement itself. Forgotten is the fact that transportation systems are facilities which merely serve the physical expression of the social and economic values of society. These values are expressed in terms of activities conducted daily in certain specific locations. Land-uses thus profoundly influence trip making. They influence the magnitude of trips made, the location of the trip, the length of the trip, and other trip making characteristics.

Controlling land-use location and intensities would control trip making demand and, hence, would enable the transportation planner to design a balanced system where the proper transportation mode — this is the one that could most efficiently serve the specific trip making needs for a particular area and/or activity pattern — would be instituted. Such a system would enable the transportation planner to at long last design a system for a fixed level of demand rather than continually reacting to increasing traffic demands.

What is needed, then, if a balanced transportation system is to work properly, is a balanced land-use system. The question of the proper urban movement choice can then more properly be addressed in the larger context of the activities which the transportation system is expected to serve. Such a system could be initiated through the adoption of a metropolitan land development policy with sufficient restrictions such that transportation systems can be designed with the knowledge that they will not be rendered obsolete prior to construction.

A successful balanced transportation system, would require certain additional restrictions upon a person’s travel habits in addition to those placed upon his land development desires. Terminal location, vehicle mode, and access are but a few major categories in which travel restrictions might be imposed. While such restrictions will no doubt be viewed with hostility by many, it might be pointed out that traffic regulations, as we know them today, were no doubt equally viewed with hostility when they were instituted. Of greater implication, however, is the growing depletion of our energy resources and the need to utilize them more efficiently. In the long run, as congestion increases and as our energy resources decrease, society may find itself moving more closely to land development and movement restrictions in the interest of its self-preservation.

We have already begun efforts to place greater restrictions upon movement and land development in the metropolitan areas. Auto free zones are being considered in certain areas. Land-use controls, based on transportation relationships, are gradually being initiated in some localities. Freeway ramp metering is being initiated. Political and legal considerations, at this time, appear to stand in the way of rigid land development policies and controls. At best, such changes will be gradual. If the urban transportation problem is to be solved, however, efforts to examine the real problem rather than continuing the attack upon the symptoms must be initiated. It is hoped, therefore, that in their zealousness to provide system improvements that transportation planners and politicians give equal consideration to more rational land development policies.

G. Scheuernstuhl, an Associate with Barton-Aschman Associates, Inc., St. Paul, is a Registered Professional Engineer and a member of the American Institute of Planners.
Honor Award

Paul H. Giddens Alumni Learning Center, Hamline University, Saint Paul, Minnesota

Hammel, Green & Abrahamson, Inc., Architects
Saint Paul, Minnesota
Jury Comment

This conversion of an existing campus library by alteration and addition into a joint use learning center has been executed with a high degree of skill and sensitivity. The entry space, incorporating the old library portico, is a particularly exciting and dramatic space and gives the complex a very positive focus. The plan is well ordered and open in organization and creates for the user a good sense of participatory awareness and orientation throughout the building. The highly respectful attitude of the addition is reflected both in its careful siting and in the empathetic use of roof forms, scale, material use, detail and textural qualities of the existing structure. The interiors are simple, consistent in detail and warm in feeling. Notably, the interior redesign of the old library spaces are outstanding, exhibiting a tastefulness that gracefully enhances the old decor.
The Experimental City

By James Alcott

Minnesota Experimental City is recognized throughout the country as one of the most imaginative, forward looking urban projects. It is more than an urban effort, however, because its goals address themselves to questions of state and regional growth, land use policy, population distribution, and the conservation of the environment. Since the project originated at the University of Minnesota in 1966, its ideas have found their way into the recommendations of virtually every blue ribbon commission on national growth problems since.

While MXC shares a lineage with the early garden cities and with the new towns in the U.S. and Europe, the intent is to go beyond in creating a new kind of city. The differences are several:
1. A population of 150-250,000, outside commuting range of existing metropolitan areas, related to the non-urban region of which it will be a part;
2. Considerable decentralization of employment and retail activity, supported by a sophisticated telecommunications system and a dual mode guideway transit system;
3. A settlement pattern of dendritic character, adhering to environmental constraints and preserving large areas of agricultural, recreational and open space as an integral part of the larger community;
4. Innovative land ownership and use controls, supportive taxing mechanisms, and governmental relationships for the provision of public services;
5. Serious commitment to energy conservation through the integration of utilities (energy, fuel, waste management, water, sewage) and through the design and placement of structures in relationship to the natural environment.

In these and other respects, MXC will be a test bed for ideas which other communities must consider in the future. Minnesota has been spared many of the problems of Orange County and Long Island, for example, but it is not immune. The population is projected to increase by one million within the century. Most of that growth will take place in the Twin Cities' periphery. Meanwhile 62 out-state counties will lose population — over 200,000 will leave because of the lack of opportunities. Pressures on the recreation areas easily accessible to the Twin Cities will increase geometrically, with almost certain environmental degradation.

Growing numbers of Minnesotans — and all Americans — show a growing impatience with urban living, expressing a great desire to live in rural areas, towns and villages, but within range of the amenities of the city. The President's Population Commission put it well: "People want the best of both worlds — the serene and clean environment of rural areas and the opportunity and excitement of the metropolis. Ironically, people moving to such areas typically find that they lose their more desirable aspects — semi-rural areas rapidly become suburban."

In Minnesota it may still be possible to create new patterns, to offer new alternatives. MXC is one such alternative, but it should not be thought of as mutually exclusive of the development of smaller outstate cities and the continuing renovation of the metropolitan area.

Innovation in MXC will serve at least three purposes: (1) it will provide improved urban systems for residents, (2) it will provide experience in urban innovation which will become the basis for adaptation elsewhere and (3) it will provide the central part of an economic base.

Some of the innovations and experiments will be partially built into the city; others will be developed over time in response to the preferences of residents. Contrary to some fears, people will not be "experimented on," but rather will experiment with the service and technological opportunities inherent in MXC. Most innovations will have been tested on a pilot basis before use on a large scale in MXC, so that there will be a reasonable assurance that they will "work."

The planning and development staging provides for considerable flexibility in responding both to new technological opportunities in the development of systems and to the experience in using the first stages of existing systems. A traditional master plan has not been used in favor of a planning process which forms guidelines for development and requires periodic and frequent evaluation and reformulations.

The design of MXC reflects the fact that increasingly the strength of the U.S. economy comes from the processing of ideas and information (as opposed to natural resources) and that employment moves increasingly into the service and knowledge industries. As a test bed for urban innovation, MXC will have a natural attraction for economic activities in telecommunications and urban systems. In both cases, the software and applications aspects of the industry may hold greater growth potential than the hardware. As an industrial base becomes established, it will be-

James Alcott is Executive Director of the Minnesota Experimental City.

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I am an urban prisoner. Very seldom does my family get a chance to leave the city for the northern lakes, let alone wider travels, but in a few years it will be possible for us to take a trip to the tundra to see a herd of musk ox, to arctic waters to see whales, to the tropical rain forests to see colorful bird life, all on a single Saturday and more cheaply than a matinee at our neighborhood theater. Things they've only read about or seen on television will be at my children's fingertips. The Minnesota Zoological Garden will be an invaluable extension of their education.

Two exhibits that particularly interest my family are the nocturnal exhibits and the pigmy shrew. In an exhibit illuminated by a special kind of light visible to human eyes but not to those of animals, we'll be able to see several nocturnal animals going about their nighttime activities, animals common to Minnesota but known to us only as sounds heard at night from the darkness. The pigmy shrew is the smallest mammal in the world, little longer than its name typed on a piece of paper, quite common here but seldom seen.

The Twin Cities is rich in cultural resources. It has good art galleries, museums, orchestras and spectator sports arenas. They say that modern zoological gardens attract more visitors than all major spectator sports combined. The popularity of zoos is increasing with the growing public interest in our natural resources and the need to become more intimately familiar with the natural environment. A recent popular song remarks, "Don't it always seem to go that you don't know what you've got 'til it's gone?" There's still a little time for us to find out.

The demand for environmental education at all levels is difficult to meet at present and it is particularly urgent for the cities where asphalt is replacing sod at an alarming rate. Our interest in the zoo goes beyond the pleasure of having a fascinating, populous community of animals and plants within a short drive of home, although that alone is a boon. We will be proud to be part of a center for research into the problems of maintaining present natural habitats and restoring them and their ecologies. The Minnesota Zoo will be responsible for the care of certain vanishing species, maintaining breeding stocks with which to ensure their survival.

Mainly, of all the spheres in which the zoo will be involved, that which will most directly benefit us will be its educational role. After seeing the naturalistic exhibits throughout the 470-acre site our children's school groups will make use of the classroom facilities. Their teachers will have at their disposal a wealth of materials and the assistance of experienced zoo personnel. Outstate communities, inconvenienced by the distance to the site, will be visited by zoomobiles, large vans with self-contained naturalistic exhibits and a troupe of traveling teachers. Groups may wish to use the services of a lending library which will lend certain animals as well as the more conventional materials.

What more could we ask? Quite a lot and the experience of many of the world's major zoos has shown that the limits of a zoo's services are bounded only by the imagination. Special groups have special needs that the Minnesota Zoo can help meet. For instance, because the Minnesota Zoo goes beyond the visual, blind visitors will be able to feel the shaggy coats of northern mammals or hear the sounds of whales or porpoises conversing. People living in deprived areas will have a whole new world opened to them. A docent program will involve citizens of all ages in the work of a modern zoological garden, leading some to exciting careers in the wide fields of nature study. What about the city-bound camera bug who dreams of becoming a wildlife photographer? His earliest expeditions could bring him rewarding experiences capturing on film the rare snow leopard prowling his terrain, geographically a short distance from the photographer's home but a world away in the imagination. The list could go on but the reader will surely have ideas of his own as to how he can best take advantage of the almost limitless resources of such a facility.

The 1973 legislature will shortly decide on the zoo bill. Dakota County has furnished the site in Apple Valley at no cost to the state, where we hope the summer of 1976 will see the opening of the Minnesota Zoological Garden. That will mark an expansion of our horizons and those of like-minded families throughout the state.

J. L. Wright is Information Director for the Minnesota Zoological Garden.
Honor Award

Hope English Evangelical Lutheran Church
Minneapolis, Minnesota

Ralph Rapson and Associates, Inc., Architects
Minneapolis, Minnesota

(See color photo on page 30)
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Leslie J. Stechesen
Mr. Stechesen has his own office and is a member of the Royal Architectural Institute of Canada.

Etienne J. Gaboury
Mr. Gaboury is a Fellow of the Royal Architectural Institute of Canada and has his own office in Manitoba. He has received nearly 20 awards during his career, has lectured extensively and has been a juror in various other competitions.

Additional honor and merit award presentations will appear in subsequent issues.

(See also page 6)

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Building a Quality Environment or a Transition to the Universe

By Ed A. Sövik

When the Italian Renaissance was blossoming with almost breathtaking excitement and new visions were emerging in all the arts, that earlier aggiornamento brought gales of fresh ideas and attitudes to architecture also.

Pythagoras had demonstrated in classic Greece that musical harmonies were related in arithmetical sequences. His writings gained new currency. The architects of the Renaissance saw in them the key to architectural proportion. If organ pipes whose lengths are one, two, three and four feet long are all in harmony, then a universal law tells the builder that a room whose dimensions are scaled to these arithmetic relationships must also have consonance and elemental beauty. If a whole building is designed and articulated in arithmetical divisions, the whole should have coherence and harmony.

There was then, as there has always been among humans, a sense that an ultimate unity underlies the cacophony of existence and that the search for and discovery of that unity is a great part of what human life is all about. So the serious architecture of the time became an image of cosmic understanding, uniting the abstraction of mathematics, the harmonies of music and the proportions of space and substance. What a joy to be able to live with a sense of being in touch with elemental truth!

However, the machine age has done us ill. We have been taught to think of buildings as oversized machines whose ob-

(Continued on page 31)

Ed Sovik is a principal in the architectural firm of Sovik, Mathre and Madson Architects, Northfield, Minnesota. He is a fellow of the American Institute of Architects.
To Care And To Plan

Never before has a single Minnesota Legislature been confronted with legislative planning decisions of such potential magnitude. The decisions legislators make, the designs they formulate will long shape the quality of life in Minnesota. To care and to truly plan will require vision and a commitment to do today what might be difficult to do tomorrow.
ject is to provide comfortable and useful shelter (with some decorative cosmetic). Our humanity is diminished. We have learned to think of ourselves as biological specimens to be preserved animate in efficient machinery. We have been seduced to forget—as Ulysses was seduced by Circe to forget—that we are creatures of transcendental hopes, destinations, energies, that we have a destiny, that we are on a journey of discovery.

Yet this is not altogether true. At our best we have not altogether forgotten. At our best we listen to the late LeCorbusier, whom some would call the century's greatest architect, when he says, "Architecture is the transition between man and the Universe." For he was echoing Palladio, and Alberti and Giorgio of the Renaissance; he was saying that the man-made environment ought to make a connection between the human person and the world and the stars. He was saying that if we can design our environment properly it will not dehumanize but dignify us, illumine us and whisper to us constant reminders that we are children of wonder and hope.

LeCorbusier did more than speak of the transition. Like the Renaissance architects he found a system of proportion for buildings which he believed would relate them through the abstractions of mathematical sequences to the proportions of nature. And like the system of the Renaissance architects, his system, which he called The Modulor, has roots in Greek ideas. LeCorbusier was in some ways the ultimate humanist; he related his measurements to the articulations of the idealized human figure, ankle, knee, leg, navel, breast, shoulder, head and reach. At the same time he pointed to these proportions as consonant with those of plants and a certain geometric order.

The Greeks had examined this kind of geometry in their time too and invited it to control their art. That noblest of all the Aegean monuments, the Parthenon, is an awesome example of elegant geometry in this vocabulary. Indeed the whole vocabulary of what is now known as "Dynamic Symmetry" is awesome, though it starts from the simple concept of what is called the golden proportion.

The golden proportion numerically is 1:1.618 . . .

To define it in other terms one may say: it is that division of a distance in which the smaller part is to the larger as the larger is to the whole. However, its simplicity can be expanded in many ways. The ordinary five-pointed star contains this proportion. The ratio between any two numbers of the Fibonacci series (which runs 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, etc.) gets closer and closer to the golden proportion as the numbers go up. And most impressive of all, the geometry of Dynamic Symmetry has been found present in almost innumerable crystalline, botanical and zoological structures, from the pine cone and sunflower to the ram's horn, nautilus shell and skeletal configurations of fish and animals. It is a matter of wonder and delight. The beauty of the Parthenon or of any number of the elements of man-made environment is present because it has been the passionate concern of designers to link man to ultimate Nature. The forms of architecture echo the dimensions of nature, resonate to the patterns of mathematics, measure themselves by the scale of men's bodies. The consequence of such architecture or artifact is that in their presence we begin to think of ourselves and of human life as wonderful and noble. Are we looking for a quality

(Continued from page 45)
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help prevent deterioration of central city schools. All except the first four mentioned were included as desired legislation in Governor Anderson's budget message.

Other bills which will generate much discussion provide for removal of the mechanic's lien provision penalizing the homeowner who has already paid for his home, provision of strict penalties for odometer tampering and removal of the liquor tax monopoly. Furthermore the legislature will consider building requests for state institutions, including public welfare, corrections, education, administration and other service and recreation agencies.

The Legislative Building Commission (which consists of five representatives and five senators) has evaluated these requests, which total more than $188 million. In its report the commission recommended only about one-third of these for actual construction. Governor Anderson's budget message recommended further reductions in state buildings during the next biennium.

Complaints have come from a number of these institutions because of the recommended cuts but it must be realized that, with the lack of extra funds and the high costs of construction, all of these new requests cannot be fulfilled without higher taxes.

It is the function of the legislature to sift through all requests and recommendations and to appropriate enough money to continue necessary quality services to the people.

In making these decisions all factors must be taken into consideration. Reductions in the higher education requests were made due to declining enrollment. Decelerating population growth, high costs of the taxpayer, wants and needs of the people and plans to consolidate facilities in order to make them...
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more efficient must also be taken into consideration.

The recent freeze of $25 million allocated last session for construction of buildings at several state colleges and two new junior colleges in Fairmont and Cambridge is due to new statistics which question the need for these new facilities. The legislature is likely to review the merits of these proposals in order to see if they are really needed.

The state hospital system may also see many changes as old buildings are scheduled for demolition and existing buildings with adequate facilities are remodeled, providing varied types of service throughout the various regions of the state instead of monolithic single-purpose institutions.

Another proposal before the legislature is a bill amending the Minnesota Statutes to require the membership of the Building Codes Standards Committee to include at least one member from each Congressional District by July 1, 1977. I believe this bill will give greater statewide input into the decisions made by the committee.

Along with the above issues there will be many others of concern to the people of Minnesota. I believe this session of the Legislature has provided an atmosphere for thorough investigation and consideration of all proposals that come before us. This should result in better solutions to our state's problems.
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to the entire Senate or House, wherever it was introduced, with a recommendation that it be passed. The committee may also delay, amend or kill the bill.

If a bill passes the first hurdle — the committee — it comes before the full House or Senate in the form of a committee report, subject to approval of the entire body. If such report recommends passage of the bill, approval of the committee report is virtually assured. Rejection of the report normally kills the bill.

Acceptance of a favorable committee report does not constitute passage of the bill. The bill is read a second time and is printed and placed on the desk of each member of the body. During many legislative days each house sits as a committee of the whole for some period of time to consider bills which have been reported out of committee. The committee of the whole may recommend passage, amend or re-refer the bill to the original standing committee or another committee for further study.

If the committee of the whole recommends passage, the bill is again considered by the entire house, may be the subject of lengthy debate and is read a third time. Eventually the measure is voted upon; final passage requires a majority of the membership, not merely those present. If the bill is passed by a majority of the members of one house, it is sent to the other body of the legislature where essentially identical procedures are followed.

Even if the bill passes the second body of the legislature, it may pass in a different form due to amendments by the second house. In that event a conference committee composed of an equal number of senators and representatives meets to resolve the differences between the two approved bills. If they are able to eliminate the differences through compromise or other-
wise, their report is submitted to both houses in identical form. If either house rejects this report and fails to request a new conference committee the bill dies.

If a bill has passed both houses in identical form, with or without a conference committee, it is enrolled. Enrolling is the process followed by the revisor of checking the bill carefully, Xeroxing the bill on special enrollment paper, the first page of which is headed by the words "An Act" rather than "A bill for an act," and adding a pre-printed page for the signatures of the presiding officers of the House and the Senate with dates of passage.

After the enrolled bill is signed by the appropriate officers of the legislature, it is sent to the governor, who may sign or veto it or do nothing. If he does nothing within three days and the legislature is in session, or if he signs it, the bill becomes law. He may veto the bill and send it back to the house in which it originated with a message explaining the reasons for his veto. If two-thirds of each house vote to pass the bill over the governor's veto the bill becomes law.

The process of enacting legislation is complicated. Many factors enter the process described here. Bills which become laws represent a select minority of society's needs or supposed needs which a majority of the public's legislative representatives have concluded deserve treatment at that particular point in time.
late new patterns of migration. What is preventing it?

These observations are in no sense either facetious or skeptical. In fact, policies and clearer objectives are needed, especially in the fields of resource management (including land itself) and social services. However, the policies probably should be developed with deliberation, probably step by step as our information, understanding, and consensus grow in breadth and depth.

Minnesotans are improving the framework for such deliberation and action through the Regional Commissions, the Environmental Quality Council, the proposed Commission on the Future—to serve as a commission to the State Planning Agency, standing legislative committees in the fields of environment, resources, and social services, and the continuous formation of voluntary action groups.

In a larger sense we are all participating in an intellectual struggle of considerable significance in the history of the Western World—an effort to reconcile large-scale public policy planning with democratic precepts. Minnesota is a small part of a worldwide and nationwide system of routes and regions, with its complex circulation of goods, knowledge, and ideas. It is quite possible that the wider system is fundamentally unpredictable in detail over the intermediate and long run of time unless it is controlled in some absolute way. It is also possible that the wider system is uncontrollable over the long run—certainly from Minnesota, perhaps from any place.

In this larger context certain features have consistently distinguished Minnesota. Probably the most important has been adaptability—the ability to adapt to revolutionary changes in technology and social-economic organization. Consider the dramatic shift of agriculture from wheat
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to livestock, from bonanza farms and general farms to specialized canning vegetable, sugar beet or potato production; the adjustment from a booming frontier to virtual non-growth early in this century; the shift of management from milling to machinery to electronics, research and finance; the fact that the region has had major rail headquarters in the railway age and major airline headquarters in the air age; the contributions to the organization of co-operatives, medicine and education.

Other regions have also done this; many more have not. Adaptability has been related to other, underlying characteristics.

- High standards of personal performance.
- High levels of public investment in facilities and services.
- Open and respectable public discussion of problems and issues, with concern for human dignity, facts and practical solutions — “practical liberalism,” a friend from a distant state called it recently.
- The lake-studded glacial terrain, astride the vivid transition from northern forest to rich farmland, which has helped many want to stay here and others want to return.

If we try in the future to learn more about these basic characteristics, we will surely improve the state of the state. We could well try to learn why the state’s people and society have had these distinctive characteristics — and how to preserve and enhance them without resorting to dogma.

With this kind of effort we can hope to adapt in the future as well as Minnesotans have adapted in the past. The future evolves out of continuing and ever-changing dissatisfaction with the present, from new knowledge about man and the earth, producing change and the need for more new knowledge.

Whatever the state’s Growth Policies might aim to do in detail, they are likely to be concerned with two broad goals.

- To help to keep alive desires to gain more understanding of the present situation, to design improvements and to protect the freedom of those who follow us to do likewise.
- To help the people of Minnesota to act as a community in management problems of state-wide concern.

If we try in the future to learn more about these basic characteristics, we will surely improve the state of the state. We could well try to learn why the state’s people and society have had these distinctive characteristics — and how to preserve and enhance them without resorting to dogma.

With this kind of effort we can hope to adapt in the future as well as Minnesotans have adapted in the past. The future evolves out of continuing and ever-changing dissatisfaction with the present, from new knowledge about man and the earth, producing change and the need for more new knowledge.
A Metropolitan Housing and Redevelopment Authority

(Continued from page 16)

It is intended that the Metro HRA would have the same powers as a local HRA and those powers were broadened in 1971. Previously limited to the development of low income housing, HRA's can now develop moderate income housing as well and HRA's can now acquire land or space which is inappropriately used, unused, vacant or underused as long as major clearance of residential areas is not required. Formerly acquisition was limited to blighted or potentially blighted areas. New legislation regarding "spot renewal" provides that land may be acquired for development without having an areawide or comprehensive plan. Important to the issue is that with the approval of local government HRA’s have the power of eminent domain in all but “spot renewal areas.”

A Metro HRA could acquire land almost anywhere, hold it as long as required for the proper type of housing development and then make it available at low cost, thus preventing inflation. Development can then occur in high land cost areas without having a high land cost as a limiting factor. More low and moderate income housing could be located in desirable areas and have streets, parks and a wide range of public services provided by a Metro HRA.

It is significant to note that the first HRA legislation in Minnesota was passed in 1947 and provided for the creation of municipal housing and redevelopment authorities. Then, in 1972, legislation was passed which allowed the creation of county, multi-county and regional HRA’s, ex-
cept in the seven-county metropolitan area, and special legislation provided for a Dakota County HRA. Notably lacking the provision for areawide coordination is the metropolitan area and it certainly needs it the most. A Metro HRA would not function in a community that would not permit it but even those communities could benefit from the research and planning a Metro HRA could undertake. It seems more a benefit than a threat. The Minnesota Society of Architects has stated that "it supports the establishment of such an authority as long as it does not usurp the responsibility of local housing authority already established, but serves to coordinate and to reinforce these activities and provide services to communities without such authorities."

It would appear that individuals interested in the proposed legislation should make their feelings known to their elected representatives as consideration of the proposed legislation is likely to occur early in the session.

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gin to create a range of opportunities in smaller towns in the region, much as has happened in the larger Twin Cities region during the past 20 years. In addition, many outlying towns will be able to tap into the special resources of MXC to supplement their own in health care, education, and the like.

Plans for new cities like MXC are now being actively discussed in Ohio and Virginia, and other states will follow. It is perhaps ironic that some of the most outstanding innovation in the U.S. is now taking place at Walt Disney World, but that activity too can only act to stimulate thinking about the need to consider our future environment more imaginatively and responsibly than we have in the past. Whether Minnesota chooses to maintain its advance position or not, it now seems clear that new experimental innovative environmental cities will be built in this country and abroad. The questions are where and when.

Man does not live by words alone, despite the fact that sometimes he has to eat them. "Alas, in this world he sometimes, or perhaps too often, lives by catchwords. Slogans are normally designed to get action without reflection.

You have to see this country to believe in it and the more I see of it, the more I believe in it.

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quoted in Intellectual Digest

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environment? Are we content with efficient machinery to keep us comfortable and forgetful? We shall not be long content for we are humans.

The Greeks were not the end but neither were they the beginning. As long before them as we are after them people were devising architecture that was conceived as a transition between man and the universe. The evidence endures as the great pyramid and still brings us to almost breathless admiration. The great pyramid not only deals in the golden proportion and other mathematical elegances, its dimensions relate to the dimensions of our spinning globe with remarkable precision. Evidence supports the claim that its architects knew not only the diameter of the earth at the equator but the diameter through the poles, a knowledge gathered from acute studies of the movement of sun, planets and stars, and to those initiates of ancient wisdom there must have been great satisfaction in constructing a durable image of their sense of belonging to the universe.

Nor were those master builders of medieval times unconnected to universal principles. They too had their system of geometric order which gave coherence to the structured environment and witnessed to their faith in a unity of creation. Even if we don't know the simple complex processes which Makody-Lund illuminated in his studies of the cathedrals two generations ago, we respond to them for the beauty that emerges when designers attach themselves to a cosmic vision is a convincing sort of thing. We listen to that silent speech of architecture and in environments of this quality an echo sounds within us. We recover the sense that we are a magnificent species.

More needs to be said: Our environment is composed of small as well as big things, simple as well as elaborate, humble as well as majestic but all of them can be awesomely beautiful. The Grecian urn was also the product of Dynamic Symmetry and LeCorbusier's little church at Rouchamp was dimensioned by the Modulor. So let us not say that anything needs to be trivial. Nothing needs to be. All the environment that we control can relate us to the universe. All of it, if we want it to be so, can be shaped and structured as an image of truth and when this happens our lives will sustain a quality not yet achieved.

What we can learn from the Egyptian sages, Greek philosophers, Italian visionaries and thoughtful, rational men like LeCorbusier is only a part of the process of building transitions. There are other ways through which other architects less mathematically oriented have found other paths to the same end. The Japanese and the Chinese have taken other routes, the Indians on both sides of the world have indicated other systems. We ourselves may add to this variety new varieties but to do this we shall need to think and plan and work as though we know that no environment that sees people as less than creatures of truly cosmic dimension can be justly called by any of us a quality environment.
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Book Reviews

SYMBOL SOURCEBOOK
An Authoritative Guide to International Graphic Symbols
By HENRY DREYFUSS
(McGraw Hill)

Reviewed by Elizabeth Close, FAIA

Mrs. Close practices in Minneapolis in partnership with her husband, Winston.

In many ways, this volume is unique. It is a picture book, to be looked at rather than read. It is a reference book; not a dictionary in any sense but rather a collection of pictographs, signs and symbols selected from a much larger data bank of the author's. Selection was made on the basis of clarity, common usage or excellence of graphic presentation.

The book comes wrapped in a bright red jacket and contains the following:

Table of Contents, in eighteen languages. It requires seven alphabets to print this, which in itself is a warning about symbols; they must be learned to be interpreted. If they proliferate confusion results.

Foreward, by R. Buckminster Fuller. He says, "There now looms into silent recognition a new, exclusively visual language, that of roadside and street intersection signs, airport signs and supermarket signs, etc., which accommodate the world-around motorist, air traveller and telephoner."

"Henry Dreyfuss . . . may be opening up a whole new world of exclusively visual language in which deafness would not prevent communication . . ." The ideal of international communication by universally understood symbols — bypassing differences of language, cultural patterns and ethnic values — is certainly most appealing.

Introduction, by the author, explaining his objective and the
Semantography, by C. K. Bliss, is a brief resume of a pioneering attempt to develop a system that crosses language barriers, using about 100 basic symbols which can be combined to express complex ideas.

Isotype, by Marie Neurath, whose husband developed the use of pictographs and a method of presenting statistical material in comparative form which has become the standard the world over.

Basic Symbols. Six pages of symbols that, in the author's words, are "the ABC of graphic symbols." However, they are a rather mixed bag: "X" is identified as "prohibition," but also means crossing (road, railroad, etc.). A pictograph of a rabbit means what? Rabbit crossing? Rabbit farm ahead? No, it means "fast," according to the book. A turtle, by the same token, means "slow" but only if one is familiar with the fable of the tortoise and the hare would the idea catch on and only if the two signs juxtaposed, an unlikely circumstance.

Discipline Section. The symbols have been organized alphabetically (really the only way we have of indexing information for quick reference) by subject matter, from "Accommodations and Travel" to "Vehicle Control."

Each discipline is subdivided into related groupings. For example, the pages dealing with Communications include TV and radio, postal service, circuit diagrams, type composition, proofreaders' marks and color correction marks; also choreographer's symbols, Morse code, international flags, semaphore code, manual sign language for the deaf and Braille. The chapter on Folklore illustrates signs used in alchemy, astrology and hobo signs — the last particularly intriguing. (See illustration.) The lengthy section on traffic makes it very obvious that standardiza-
tion and consistency of approach are needed before these signs can be used effectively all over the world.

*Graphic Form.* This section classifies symbols by shape. There is a general overview at the beginning, followed by a kind of catalog, with the shapes shown in the margin. Each symbol bears a cross-reference to the disciplines in which it occurs; in some cases there are several meanings, occasionally contradictory. It is a remarkably successful first attempt at a visual index, easy to use.

*Color Section.* A conglomerate collection of positive and negative associations, cultural comparisons and assorted unrelated facts about what colors mean to different people and in different contexts. This part seems more diffuse than the rest but contains some interesting information.

*Acknowledgements,* with a map of the world showing areas of research. It practically covers the globe; the list of supporting organizations is impressive.

*Bibliography:* 15 pages, divided into three parts: General, Discipline and Color.

*Index.* This includes a system of cross referencing, plus a listing by design categories, to help users of the volume find specific items.

The sourcebook is big, handsome, entertaining and thought-provoking. It illustrates the danger of inventing your own symbols; they may be misinterpreted. However, as a first step toward a universal sign language, this collection is valuable; graphically unified and organized by categories as well as shape, the book should give an impetus to further study. To anyone interested in visual communication — and what architect is not? — these designs are fascinating.
ENVIRONMENTAL ACOUSTICS

Mr. Christiansen is Director of Facilities Planning and Operations, Minnesota State Department of Education.

Building acoustics come back to haunt many an architect, despite his consideration of this aspect of the human environment during early design phases. Sometimes this is due to a limited understanding of basic physics, inappropriate use of materials or just practical construction techniques. Environmental Acoustics includes practical information in these areas that is relevant to any building project.

The table of contents indicates the subject areas covered and the orderliness of Mr. Doelle's presentation. The book is recommended as a reference tool as well as an educational tool, because of its excellent organization. He has also succeeded in addressing the practical problems of detailing for actual job performance by showing numerous examples of actual constructions. His book is filled with outstanding photography and other graphic illustrations (especially appreciated by architects) that suggest the variety available in solving some of the problems of the sonic environment. In recommending this book to you, I must add the caution that a "cook book" approach to design will not necessarily produce satisfactory acoustical results any more than it will with regard to other aspects of architectural work. Therefore, for many architects it may be desirable to retain a consultant (if only to review and evaluate the design technique used) for achieving a satisfactory environment.

SPEC-AID Outline Specification / Questionnaire

The reviewer, a principal of Team 70 Architects, Inc., of Saint Paul, is a past president of the Minneapolis-St. Paul Chapter of the Construction Specifications Institute and a consultant in materials research and specification.

Just about every office has its own version of an outline specification / materials list / check list or similar document by another name, but I defy any but the most sophisticated, specialized firms to produce one as comprehensive as this one. A bargain at the single package price of 5 booklets for $3.75 ($3.00 per five-pack in quantity), this Meansco form can provide an economical filler for the communications gap usually existent between specifier and designers, draftsmen and engineers during the preliminary phases of a project.

As usual with the Meansco forms, Spec-Aid is organized around the 16-division CSI format and utilizes simple generic names for construction materials and methods. Only one redundancy exists, that of a gridded page for a project sketch (drawings are usually available to the specifier even in the very earliest schematics). The space occupied by this grid and a rather poorly designed and almost blank cover could well be split up to provide a few more lines on each division for the specifier's or job captain's use for those "other" materials and methods.

The excellent interior layout of the booklet provides a face-to-face two-page layout of each major division so that, with the book open, the entire division is visible at once.
The Legislature and Metropolitan Planning

(Continued from page 10)

zoning" which impede orderly development. It enacted a pioneering law which, to a degree and for the first time, separated the location of the tax base from the location of the buildings. This provides all parts of the region a share of the non-residential growth of the region as a whole, while permitting the concentration of major commercial and industrial development into the "major centers" envisioned in the council's plan. The law was recently invalidated in District Court. The program remains, however, a key part of the system for coordinated development of the Twin Cities' area and may be back before the 1973 session for re-enactment in modified form.

The architect, in addition to being a formalizer of other people's dreams and ideas and needs, is also an interface between areas of the community in which he's working. He's a professional who puts the needs of the community above his own. Ego must be played down. Beautiful places have to be socially useful in some way greater than just their own existence. We need to break down the traditional restrictiveness of the roles of architect and planner to better adapt their unique talents to our changing community structures.

James Stewart Polshek newly chosen dean of the Columbia University School of Architecture

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**NORTHWEST ARCHITECT**
Bucky Becomes Institute

The ideas and developments fostered over decades by that well-known individualist, Buckminster Fuller, are to become the concern of an institute which will gather and disseminate them. Creation of the Design Science Institute was announced recently, to be headquartered in Washington, D.C.

Over the years Bucky, as he is affectionately known to the many architects and other designers who have worked with him on his multitudinous projects, guarded his independence carefully so there would be no strings tied to his flights of fancy which so often were brought down to earth to create geodesic domes and other outstanding modern features of our environment.

Now these historic developments will be cared for by the institute, whose work will be headed up by Dr. Glenn A. Olds, president of Kent State University in Ohio. Olds will remain at Kent but lend his direction to the group's efforts.

At first, Olds reported, the institute will be concerned with collecting Fuller's books, speeches, papers, models and everything else which needs to be preserved with the aim of spreading these materials where they will later do the most good in making learning, research, etc., pertain more directly to life on spaceship Earth. They will of course include the Fuller Dymaxion Sky-Ocean World Map, his world games, the Dymaxion automobile and so on.

Some years ago students and faculty of the School of Architecture, University of Minnesota, were privileged to have Bucky spend some time on campus working out geodesic problems as a group project.

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The 70-year-old Ansonia Hotel in New York City as been designated an official city landmark. Located on Broadway at 73rd St., the Ansonia was built with thick, soundproof walls and as a result had among its guests and tenants many famous conductors, singers and musicians.

Plans also are underway to save and restore Atlantic City's famed Traymore Hotel. The building has been added to the National Register of Historic Places.

George E. Thomas, an architectural historian connected with the University of Pennsylvania and Drexel University, has been instrumental in efforts to save the hotel from demolition. Morton Feldman, an Atlantic City attorney for a group of investors, says the Philadelphia architectural and planning firm of Magaziner, DiGiorgio and Kirkbride is studying the feasibility of restoring the Traymore.

With the continued construction of shiny new hotels and motels and the attrition of many marginal properties, it's good to know hotels are among the significant architectural works of America's past which may be saved to be enjoyed by future generations.

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The interplay of new ideas and their implementations is vital in today's construction industry and the first vice-president of the Minnesota-Dakotas Chapter of the Producers' Council, Dale Lommen, has an important job of helping coordinate the many activities of the PC in relation to the architects, engineers and other groups served by the organization.

Mr. Lommen, who is the corporate vice-president of Mahin-Walz, Inc., Hopkins, Minn., served the industry originally as a tradesman and has participated in the Construction Specifications Institute, School Facilities Council and in various offices of the Producers' Council.

Bob Mahin, president of Mahin-Walz, has long been active in PC and Mr. Lommen credits him with leadership. A 10-year man, he feels his trades experience provided the insight to best promote construction materials.

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Tile Contractors Elect
Ernie Haines of Dale Tile Co., Minneapolis, will head officers of the Minnesota Ceramic Tile Contractors' Association for 1973. Elected with him recently were Tom Gramling of Northwestern Tile Co., Minneapolis, as vice-president, and Bud Treby of Advance Tile and Terrazzo Co., St. Paul, as secretary-treasurer. The association plans intensive promotion of the use of the ceramic tile as its "Key in '73."

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**Bronze Art Ranges from Sculpture to Plaques**

A creative approach to architectural identification and sculpture in bronze is evidenced in new work announced by Sheidow Bronze Corp. Many kinds of objects used in the industry are illustrated, with specifications, in the company's new "Art in Bronze" catalog. Suggestions for special custom work are also included. The catalog can be had from the company at P. O. Box 29, Union Springs, N.Y. 13160.

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NORTHWEST ARCHITECT
Bid estimating can be speeded up materially through use of a new calculated computer system announced by Johns-Manville. The system is presently aimed at factors involved in fiber glass duct systems and can print out data like lineal footage, square footage, etc., in a matter of seconds, the announcement said. Details are available from Johns-Manville or through one of its representatives in the reader's territory.

Terratone is a new color added to the choices of the Flex-Pac prefinished window line of Andersen Corporation. Greater versatility in use of the windows is pointed out. The line is available factory assembled, prefinished in casement or awning models and comes with or without divided lights. Additional details on these and other company products can be had from Andersen Corp., Bayport, Minn.

Applications of many kinds of wood moldings to achieve effects ranging from colonial to ultra-modern are shown in a newly released booklet. Printed in full color, the history of moldings' use is given but major accent is on how the designer can apply various items to create unique room and special decor. "Wood Moldings" is available from Western Wood Moulding Producers, P.O. Box 25278; Portland, Ore. 97225.
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