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A Regional Review of Design and Architecture

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Siah Armajani: Gardens

Axial Sculpture And Architecture Share The Same Properties

symbols. I am not interested in bringing about understanding through appearance. It is not transcendental at will. The work is rooted in the structure of political, social and cultural context. That context gives the work its sign.

Reading Garden #2 1980 Project under construction for Joslyn Art Museum, Omaha, Nebraska. Courtesy of Max Protetch Gallery

There are differences between space and emptiness. There is a sense of negation in space. Space becomes a meaningful state of being when it is filled. There is no negation in emptiness. It is a state of being. For example: to empty a bucket of water is to free the bucket. The empty bucket is the bucket. I am interested in issues which are social. What is not given is the discourse. Discourse is very important to me and to my work. Therefore, it should take place alongside the work. It does not stand alone. The work is not universal. It is not the sign but the dialogue which is important. I am not interested in reducing a work to a series of signs and

> Reading Garden #3 1980 Under construction for Neuberger Museum College at purchase, New York, Courtesy of Max Protech Gallery

ARCHINTECTIORE / MIMINEGOTA / August 198

Actually, it is not a fir at all and can be best distinguished by the cones it produces. They are more round than long and possess bracts. The tree is quite fast growing. Recently, a few narrower pyramidal forms have occasionally been offered to the public. The needles of the Douglasfir are flat. The tree takes pruning well, is quite shade tolerant, and can endure dry weather better than any fir or spruce. It maintains its lower branches remarkably well even in advancing age. We rarely see this fine tree in Minnesota landscapes.

Larch (Tamarack) Like the weather, everyone talks about the beauty of the larch, but no one does anything about it. Although it is a deciduous conifer, (that is, it loses its needles in autumn) the tree has so long been neglected I would be compounding that crime if I didn't include the larch in this article. The tree belongs in the town and city landscapes of the northern and eastern regions of Minnesota, where in so many places the tree grows natively in acid bogs. Luckily the larch is not fussy about soil conditions and can thrive very well in drier, less acid upland soils. The foliage texture has an exquisite, indescribable softness and its golden color in fall is unforgettable. Some larch have a compact conical shape when young, others are quite open and somewhat irregular. In either case, the tree contrasts well when planted among other conifers.

White cedar (Arborvitae) Of all the trees of the northern forest, my favorite is the American White Cedar, Thuja occidentalis, or American arborvitae as it is often called. Although it is found in bogs and moist woods, it is a mistake to assume the white cedar thrives in acid soils. It does not, and is strictly limited in its native range to marl bogs, that is, bogs which are laden with calcareous deposits. It is wise then to use bone meal liberally when planting either the white cedar or its popular fastigiate form, the pyramidal arborvitae, to insure a nonacid soil condition. The techny arborvitae looks almost identical to the pyramidal form but is less likely to winter burn. This problem sometimes

occurs when the tree, exposed to winter sun, is suddenly shaded by an object, with the resulting drop in temperature causing damage to the tissue. No tree has a lovelier trunk than the American White cedar at maturity.

Junipers The eastern red cedar (Juniperus virginiana) is a juniper, not an arborvitae. Its vast native territory occupies nearly all of the country east of the great plains and includes Minnesota. In earlier times Minnesotans used red cedar as a yard ornamental. Today, it is being replaced in the home landscape by various cultivars of the Rocky Mountain juniper, Juniperus scopulorum, and the Chinese juniper, Juniperus chinensis, which are considered to have more attractive habit and color. Neither is dependably hardy in the northern half of the state.

One of the loveliest residential streets in all of Minnesota is Red Cedar Lane in south Minneapolis. The main attraction of this one block long avenue are the red cedars lined up along the sides of the street. These rustic trees are at least 40 years old and seem well adapted to their unusual role as a boulevard tree.

Spruce Perhaps the most popular spruce today is the blue Colorado spruce, *Picea pungens glauca*. The *''pungens''* refers to the pungent, that is, very sharp needles.

The blue Colorado spruce is a blue foliaged form of the less expensive, but attractive green Colorado spruce, *Picea pungens*. Whether blue or green, the tree can tolerate Minnesota winters fairly well and its summers quite well as long as the tree does not have to endure hot dry soils and dry autumn winds. Generally, the roots of the ornamental spruce in Minnesota need to be kept cool and moist, a condition best maintained if the trees are planted in soils relatively high in organic matter.

Although the white spruce, *Picea glauca*, can withstand dry conditions somewhat better than the Colorado can, it grows best in moderately calcareous soils, high in organic matter, to keep the tree from becoming scraggly.

But, because of its hardiness, for it is native even to the coldest corners of our state, it should be planted where space permits throughout towns and cities of its original habitat. Its kin, the Black Hills spruce, *Picea glauca 'Densata'* is a much more compact, slower growing tree seldom reaching beyond six inches of growth per season. It is perhaps more handsome because of its tendency to keep its lower branches intact even in its middle age. Although the foliage may have a light cast to it, these spruce do not become blue.

During the early days of the Minnesota State Horticultural Society, the most popular spruce of all was the Norway spruce, *Picea abies*, another immigrant from Europe. The Norway spruce is very fast growing and becomes very, very large, sometimes over 80 feet high, even in cultivation. When the early Minnesota farmer needed a wind break for his homestead he found an ally in the Norway spruce.

Today our home grounds are less spacious, so we rarely see young plantings of this spruce. Mature specimens are found almost exclusively in old cemeteries and old church grounds. It has even been forsaken as a park grounds tree. What a shame a generation of Minnesotans will have lived without seeing this massive evergreen with its sad, tired branches standing tall in our landscape.

With so many of our elms being removed from our streetsides and parklands, cemeteries, and the grounds of our finest buildings, we are presented with the challenge to redesign our Minnesota landscape. We are a northern region. Our longest landscape season is winter. If we plan and plant with this in mind, we shall begin to succeed in making Minnesota not depressing during its snowy months, but attractive and inviting 12 months a year.

Glenn H. Ray is the Executive Secretary of the Minnesota State Horticultural Society.



A light snowfall has caused branches of the upright junipers (in foreground) to droop gracefully in interesting contrast to the stiffer lines shown by the spruce in the background.

It is an attraction throughout the year, spectacular in winter. Its needles are in bundles of twos and tend to be less flexible and darker in color than those of its close look-alike and our hardier native red pine, *Pinus resinosa*. Another difference is bark color; the Austrian is gray, the red pine somewhat reddish. Unfortunately, both trees occasionally suffer winter burn when young. Both are majestic once they become more open. The Austrian pine is shapely when young and is reported to be quite tolerant of typical urban pollutants.

The Scotch pine, *Pinus sylvestris*, has both its admirers and detractors. Its detractors complain that when the tree is young, its form is irregular. However, when mature its color is a pleasant bluegreen and the bark of the younger branches an outstanding orange.

Although it can grow surprisingly well in sandy, rather infertile soils, the Scotch pine has denser, richer foliage, when given a more favorable location and properly cared for. The Scotch pine can grow more than two feet per year but will not reach the height of white or red pines. It should be grown in our communities more widely, for when this pine ages, its beauty gains character and admirers.

The ponderosa pine, *Pinus ponderosa*, is only occasionally offered for sale in Minnesota as an ornamental, but seems to succeed in locations as far north as Aitkin.

Most people would agree there is little to recommend the native jack pine, Pinus banksiana for garden or community purposes when there are other more attractive evergreens available. But the jack pine endures the worst of soils and driest of conditions. For that reason alone we should be less prejudiced against the jack pine. It is not a robust grower, but if grown well it has a rather interesting rustic appearance. I suspect there are a number of Minnesota communities that could use the jack pine very handsomely in well planned plantings, even in some locations adjacent to streets.

Firs One of the very best evergreens for the southern half of Minnesota is the magnificent concolor or white fir, *Abies concolor*. It has an attractive bluish tint and is generally believed to hold its bottom branches much more dependably than the better known blue Colorado spruce.

Not many nurseries handle the white fir, but for gradeners who live in its survival zone, it is a plant worth waiting for.

The second true fir for the cooler parts of Minnesota is our native, the famous balsam of the Christmas season, *Abies balsamea*. This fir grows quickly but tends to be short lived because it detests hot, dry soils and winds even more acutely than other conifers do. Balsam foliage is pleasantly fragrant and possesses a kind of sparkle when moved by the wind.

The third fir for consideration as a winter tree in Minnesota is the Douglasfir, *Pseudotsuga menziesii glauca*.



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den had been purposefully designed and fulfilled.

There are a number of reasons given for the paucity of evergreen trees in our landscaping. Evergreens tend to be more expensive than deciduous trees. They cannot be stored bare root in cellars, but must be set out in the field, occupying a lot of space in the nursery. Some nurserymen claim there is nearly no profit margin on spruce, larch, fir, and pine sales, so these materials are less likely to be included in commercially designed landscapes.

City officials say they haven't been planting evergreen trees in parks because of the higher costs and also because the plants need more care than most deciduous species for best results. Officials won't plant evergreens along roadways even where there is ample space, because besides being allegedly sensitive to salts used on streets in winter, the trees may pose a threat by blocking the vision of motorists.

Evergreen trees have also become somewhat unpopular because for a long time they were poorly used in the home landscape. Many conifers are big. Colorado spruce has often been planted too close to the foundation or in the front yard of a very small lot. We so often see pyramidal arborvitae placed either one to each corner in the front of our homes, or on both sides of the front entrance, and left to grow past the roof tops.

But evergreen trees have a place in our gardens, community parks, and building grounds, and when space and mood dictate, along some of our streets. I strongly believe that the main reason we see no winter gardens is because we haven't thought much about winter gardens.

The following is a listing of conifer trees, all evergreen with the exception of the larch, which are native to Minnesota or have been introduced for landscape purposes. They are trees capable of withstanding the rigors of the northern winters and summers and of adding exceptional beauty to our communities throughout the year.

Pines Perhaps the most beautiful pine of all is Minnesota's native white pine, Pinus strobus. It has been planted along some streetsides in Duluth, and is not uncommonly found growing in the backyards of many older Minneapolis homes. Planted in a large metropolitan area it seems relatively safe from its dread disease, white pine blister rust, which requires gooseberries and currants as its alternate host. As conifers go, it grows quickly, averaging two or more feet per year in a favorable site. Although it can be pruned as a shade tree, it tends to become very broad with age, limiting its use in very small areas. White pine should be used more often in the city where space permits.

The most commonly planted pine for landscaping is the Austrian pine, *Pinus nigra*, from Europe. One of the most beautiful shade trees I have ever seen is an Austrian pine, pruned especially for that purpose, growing in the back yard of a northeast Minneapolis home.





Minnesota's Winter Landscape

Glenn Ray

How does Minnesota look in winter where you live?

Although we often dream about those few sparkling frosty mornings and cleansing snowfalls, Minnesota is not a winter wonderland. By mid-November, nearly all deciduous trees and shrubs have dropped their leaves, making the cultivated landscape barren and twiggy until May. This is our wintertime, the dead season, made grim primarily because its potential for beauty becomes as dormant in the minds and works of our professional, commercial and most amateur landscape architects and designers as the buds of a January ironwood. Again and again, the educators and practitioners of the landscape arts in Minnesota portray the state as a single season paradise, a land forever shaded by the maple and ash, forever adorned by leafy green honeysuckle and dogwood.

The Minnesota winter landscape would be less depressing if we would keep winter in mind when we buy our plants and plan our designs. If we would study more closely the beautiful lines and forms of our northern coniferous forest and apply its finest attributessolace, peacefulness, protection, a sense of strength and immortality-to community design, I believe we could transform the Minnesota winter landscape from one of bleakness to one of beauty. Are there many sights more beautiful in nature than snow-covered spruce, pine, or fir? These conifers, along with our other evergreen trees (not the deciduous green ash, maple, and Russian olive) must become the foundation landscape material upon which the Minnesota cultivated landscape is based.

For several years, our State Horticultural Society sponsored a winter garden tour of the Twin Cities in an effort to direct gradeners' awareness toward adorning the cold season landscape. With few exceptions we found no park grounds, no public or private gardens or city walkways where the winter garSpruce and Douglas Fir lining a roadside provide substance and form to an otherwise open land-scape.

The Physical Education Facility at the Duluth campus of the University of Minnesota, through its programmatic and circulation requirements, provided an opportunity to go partially underground. The resultant reduction in building exterior effectively reduces heat loss and air infiltration in the winter and since the surrounding earth is cooler than the building in the summer, the flow of heat into the earth from the building is a major source of cooling. Architecturally, the lowered building profile helps scale down the building mass in the context of the surrounding structures.

Less is more

Although it is not in the same programmatic league with the prototypical health and recreation facilities, the Woodhill Tennis Pavilion in Wayzata, Minnesota is a unique, deceptively simple, and highly poetic expression of the spirit of sports and recreation.

The program called for dressing rooms, pro shop and a viewing and picnic platform. The solution provides these enclosed facilities on grade with a flat roof, which is used as a large platform for viewing and picnics. The easterly stairs are full width, providing gracious access to the deck, as well as functioning as bleacher seats for exhibition matches. The pavilion's architectural signature and focal point is the natural cedar canopy on the south, sheltering the tables from sun and providing a sense of place at the upper deck.

Francis Bulbulian, AIA, is Vice President of The Leonard Parker Associates and lecturer at the University of Minnesota School of Architecture and Landscape Architecture.

Physical Education Facility University of Minnesota, Duluth The Leonard Parker Associates



fact, they didn't look much different than warehouses.

One example that attempts to break the mold and test the new-found financial viability of sports and health clubs is the 98th Street Racquet and Swim Club located on 35-W and 98th Street in Bloomington. As seen on the banks of 35-W, the building is a curiously appropriate architectural statement in the context of its intended program, the surrounding row of faceless buildings, and its scale setting at the edge of a super highway. Even though the building does not fully resolve its aggressive geometry, it does have spirit. The playful lines and sculptured forms evoke emotion, and succeed as one possible metaphor for the joy of sports.

On closer examination, the main building form is not purely whimsical, but rather generated from the need to architecturally tie the temporary air supported structure to the permanent facilities. The design incorporates the arch form on the building which is encapsulated by the air structure at its full height and width (60 foot radius \times 40 foot height) providing anchorage and at the same time views down into the tennis courts.

The permanent facilities, situated within the parallel cast-in-place side walls, are organized on three levels; swimming pool, pro shop, racquet/hand ball courts, running track, exercise rooms and 18 indoor/outdoor tennis courts.

Transformations through reuse

A timely and cost effective method of providing indoor sports and recreation facilities is reuse of existing buildings. Presently, a series of racquet ball clubs are replacing abandoned neighborhood movie theaters. An interesting recycling project is the Northland Park Sports and Health Club in Brooklyn Park, a vacant ice skating and ice hockey arena that was renovated to provide a private sports and health/recreational exercise club. The design places all of the recreational facilities in the open space within the intact and unmodified building so that the patrons can see the swimming pools, the suspended track and exercise decks. The exposure to the "open" planning of these facilities also encourages the user to explore the other available activities.

The newly discovered and transformed Calhoun Beach Club, in Minneapolis, was originally designed as a social and athletic club in the 1920s, but never actually served its intended purpose. The crash of 1929 slammed its doors shut before they opened. Fifty years later, the club has been restored to its originally envisioned splendor.

The interiors are reminiscent of a "Night in Algiers" stage set. The health club facilities include an indoor pool (discovered in the original working drawings during research on the building) indoor/outdoor tennis courts, handball, racquetball, weight room, steam rooms and, true to its name, sail boats and canoes. The club represents a much needed in-town social and athletic facility, restored with care, imagination and flair.

Opportunities for earth sheltering

There are some very good reasons to take advantage of the earth sheltered design principle in the planning of sports and recreational buildings. The majority of the program spaces require no direct light or views, thus providing opportunities in plan geometry to maximize the earth mass around the building.

98th Street Swim and Raquet Club H.W. Fridlund, Architects/Planners





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Northland Park Sports and Health Club Paul Pink and Associates Inc.



Calhoun Beach Club Wheeler-Hildebrandt Design



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Design for Sports, Health and Recreation

Francis Bulbulian

If sports is a celebration of life, then the Thermae of Caracalla in Rome (A.D. 211-214) was a magnificent architectural statement reflecting such a celebration. It expressed the value the Romans placed on sports and health as an integral part of their daily life.

The main entrance to Caracalla led to the park-like enclosure, laid out for running, wrestling and games, around which were grouped halls for dramatic presentations and lectures. The central building measured 750 feet by 380 feet (larger than six football fields) accommodating 1600 bathers in splendid luxury. The interior spaces were roofed with immense semicircular intersecting vaults, lighted by clerestory windows. The interior halls must be imagined with light streaming in and striking brightly colored walls, marble columns and mosaic floors accentuated by the steam in the air. A sophisticated underground system of tunnels provided steam and hot and cold water.

Today the proliferation of sports and health facilities for the masses is a phenomenon that reflects our society's enlightened concern with the health of body and mind. Running, swimming, and racquet sports, to name a few, are replacing the before-dinner martini syndrome as a means of winding down and relaxing after a long day. What was once known by only a few is now known by many; sports can be a powerful antidote to anxiety, depression and other unpleasant mental states.

Residents of warmer climates can unwind with exercise and outdoor sports all year 'round. But a Minnesotan's outdoor exercise time is limited. What do we do the other eight months? That aspect of life in the upper latitudes is reflected in a high per capita of indoor sports and health facilities. However, as is true with all evolving buildings, the early prototypes were mostly speculative ventures offering only the necessary amenities under an austere enclosure, built mainly of pre-fab, warehouse intended components. In



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MN/DOT designers are more enthusiastic about the possibilities of passive solar applications in rest area design than incorporating active systems. The earth sheltered and solar-powered rest area buildings are being carefully monitored to accurately assess the efficiency of alternative energy features in rest area architecture. As an uncomplicated Minnesota building type, rest area structures fitted with alternative energy systems will also provide valuable information on the applicability of such alternative systems in other regional building designs.

Rest area Users

In addition to the transient groups of rest area users-the tourists, the transport workers and the commuters-Minnesota's rest area architecture is also designed with a more permanent user in mind. Under a program developed by the Farmers Union Central Exchange, an agricultural cooperative in Wadena, retired Minnesota farmers are hired by MN/DOT to provide custodial services at each rest area site. Known as Greenview, this novel use of retired local residents at rest areas is beneficial on three counts. Greenview workers are on duty around the clock at the sites and MN/DOT believes their constant presence and the custodial service they provide have helped to deter costly vandalism that has plagued other rest area programs. The routine building and grounds maintenance performed by the Greenview men also saves on the expensive field maintenance trips MN/DOT would otherwise have to make. And as the Greenview program is economical, it is also culturally beneficial in that the rest area architecture is being occupied by a permanent local user whose presence is reflected in the rest area building plan.

Topography

The relative flatness of Minnesota's rural landscape can easily fatigue the longhaul driver, creating a practical need for safety rest areas along the interstates. The topography also accen-

tuates the dominant characteristic of the interstate itself-that it is a glide path for high-speed extended travel. It is because the interstate highway is monotonous and uninterrupted that it is an efficient means of time conscious, end-seeking travel.

Minnesota rest area sites communicate their usefulness as way stations, rather than the traveler's goal destination. The rest areas serve to mark distances on a flat topography more comprehensibly than a map line or odometer reading. In fact, rest areas along Minnesota's interstates mark distances for the traveler in the same incidental way that towns along smaller two-lane roads do; the rest area's relationship to the landscape, however, is much more direct than the town's connection. Minnesota's rest areas are intentionally designed to frame a view and focus the traveler's attention on the in-between spaces in the traveler's journey. The seasonal changes in Minnesota's climate make those framed views all the more worthwhile.

Carol Morphew is a planning and urban affairs analyst with Team 70 Architects, Minneapolis.



ARCHINATECTATIONAL MINIMIESCOTA August 1980



tical building across the highway uses a conventional heating unit. MN/DOT predicts the alternative system to produce about one-half of the building's space heat and provide three-quarters of the hot water needed at the site.

The two rest area buildings near Blue Earth designed by James Cox and David Kane are earth sheltered structures oriented to take advantage of a striking scenic overlook. The heating costs for this passive design are expected to be half of that needed to heat a conventional above-ground structure.

Pauly-Olson, Ltd., St. Cloud, designed the earth sheltered rest area buildings at Enfield, along I-94. The 1,700 square foot brick building was first constructed above grade and then covered with 18 inches of earth to moderate temperatures inside the building and thereby decrease heating and cooling costs.

Straight River Rest Area Architect: Smiley/Glotter Associates, Minneapolis



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Energy Systems

Even the recent incorporation of alternative energy systems in new rest area buildings has not raised overall development costs.

Regional Influences

Minnesota's rest area system is not the first developed in the nation nor is it the largest. The comparatively high quality designs are the product of both the refined design program and architects' responses to strong regional influences.

Nature of the Interstate System

Three major interstates traverse Minnesota latitudinally as well as longitudinally. The rest area system in effect serves 850 miles of highway within the state. Interstates I-94 and I-90 take the traveler from the urban centers and rich farmland of the Mississippi Valley to the edge of the western prairie. Interstate I-35 links northern Minnesota forest land with the agricultural southern part of the state. MN/DOT's initial approach in the 1960s was to develop a distinctive building type for each of these three interstates in an effort to bring continuity to the lengthy system. Nine rest area buildings were designed for sites along I-90 by the late architect, Warren Kane, of Austin. Virgil Siddens' office in St. Cloud designed six similar rest area structures along I-94 and Gauger and Associates (now Gauger Parrish, Inc.) designed four buildings along I-35 between the Twin Cities and Duluth.

As rest area sites were completed and MN/DOT gained experience with the development process, a reliance on design guidelines developed. And although there has been a departure from these earlier building types, MN/DOT believes continuity has been preserved through the use of indigenous materials and the observance of standardized design guidelines. The extensiveness of Minnesota's interstate system gave rest area developers reason to design rest area architecture that relates both to the immediate surrounding ruralscape as well as to a system that traverses a large state. The design guidelines developed by MN/DOT are meant as a practical means of integrating highway architecture to its immediate locale while preserving linear continuity along the interstate route.

Building Systems and Materials

Perhaps the best evidence of the regional influences on Minnesota's rest area architecture is the established use of indigenous materials in building construction and the more recent emphasis on earth sheltered and solarpowered designs.

The three interstate "prototypes" developed in the 1960s incorporated local materials in their designs. Native limestones were used in I-90 rest area buildings, Cold Spring granite was specified for the main buildings, and picnic shelters at sites along I-94 and the circular buildings serving I-35 were covered with wood shakes, in keeping with the proximity of the state's major forests. The use of poured concrete and brick has also been emphasized to better integrate what are often the only manmade structures into an otherwise undeveloped ruralscape.

State legislative action in the late 1970s ordered MN/DOT to achieve greater energy conservation in future building designs. In response, MN/DOT developed a "total philosophy" of energy conservation in its rest area program. Site selection, building design, materials specification and on-line maintenance procedures of new rest area facilities are all being geared to increase energy efficiency. Three newly completed interstate rest areas have obvious energy-efficient features that respond to this new building requirement.

Smiley Glotter Associates, Minneapolis, designed two main buildings on either side of I-35 near Straight River and outfitted one with a solar and heat recovery system. The dimensions of the solar panel necessary for energy collection influenced the sloped roof design of the building. The other idenSouthbound A non-solar (conventional) system.



is this advance notice that triggers the traveler's decision to stop, not the visual sight of the rest area. The advance signs for each rest area bring about 12 percent of the interstate's average daily traffic off the highway and onto the serpentine road that safely slows traffic flow and psychologically prepares the traveler for arrival at the rest area site.

The landscaped rest areas include separate car and truck parking areas, a main building, picnic shelters, walkways, play areas for children, and a maintenance equipment storage building. The successor to the wayside rest provides more than a safe pull-off to beat driving fatigue. It is designed to provide travelers with a place for emergency repairs, clean restrooms, travel information and recreational spaces.

The program's most distinctive characteristic is its unique approach to quality and economy in rest area building designs. With three interstate highways crisscrossing the state, a comprehensive program of rest area sites was necessary to adequately serve the system. While a prototypical design may have at first seemed economically desirable in such a full-blown system, MN/DOT made the decision in the early 1970s to produce individual rest area structures based on a design program that standardizes certain design components.

MN/DOT landscape architects prepare a master site plan for each rest area and individual architects are then commissioned to design rest area buildings using MN/DOT's program guidelines. Rather than adjusting a prototype building design to fit a given site, the Minnesota program provides architects with programming data applicable to all selected sites and encourages individualized design concepts that meet program guidelines as well as the particular requirements of a site.

The main building then, is the clarifying element that organizes the traveler's visit to the rest site. Averaging 1,100 to 1,600 square feet in size, the main building includes a lobby area with telephone, drinking water and travel information displays, toilet facilities and a combination mechanical room/custodial office. The rest area building design program issued by MN/DOT in 1978 outlines the design and construction material requirements for the main building's lobby space, toilets and mechanical room. These requirements are meant to provide latitude in design of the structure while insuring economy of construction and maintenance.

MN/DOT believes their development costs indicate individualized designs based on a common program can be as economical as a prototype building approach. The national average cost for total development of an interstate rest area was recently estimated at \$1.3 million. Minnesota's average rest area development cost is only about \$950,000. The average building costs associated with the development of a main building, picnic shelters and storage building on a Minnesota rest area site range from \$200,000 to \$300,000.

Anchor Lake Rest Area Architect: Damberg & Peck, Duluth



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Photography: Neil Kveberg

Blue Earth Rest Area Architect: Kane & Cox, Austin



Enfield Rest Area Architect: Pauly-Olson, Ltd., St. Cloud

funding for interstate rest areas is handled on a 90 to 10 federal/state cost sharing basis, using highway gasoline tax monies. But while federal tax dollars pay the lion's share of the costs, the states retain responsibility for the design, construction and maintenance of their own network of interstate rest areas. A disparity among state programs has developed because of differing state legislative priorities and perceived economies of scale. Some states, such as Wisconsin and North Carolina, initiated rest area programs much earlier than Minnesota, making use of a prototype rest area building design. California and Texas operate large scale programs utilizing architectural teams organized within their own state agencies. Other state programs are far less developed and are indefinitely suspended due to economic woes.

Minnesota Rest Areas

Minnesota's rest area program is relatively large and well developed. Of the 36 interstate rest areas planned for Minnesota's system, 29 are completed and in service along interstates I-35, I-90 and I-94. Three sites are currently under construction and three others are still in the preconstruction design stage.

In selecting a site, MN/DOT landscape architects look for the "best available" site along the roadway, one that combines rolling topography, a view, and access to water and healthy tree cover. Historic and geological points of interest also enter into the site selection process but the ultimate decision weighs ecological factors more heavily than cultural attributes. Rest area sites range in size from 20 to 40 acres and are spaced roughly 50 miles apart along the interstate. Studies indicate rest areas spaced about one hour's driving time apart receive the highest usage considering the types and levels of traffic on Minnesota highways.

Advance signage on the interstate alerts travelers to the rest area up ahead. According to MN/DOT designers, it



Big Spunk Lake Rest Area Architect: Team 70 Architects, Minneapolis

Photography: Bernard Jacob

Minnesota Interstate Rest Area System

Carol Morphew

Rest area sites are a developing rural use located along Minnesota's interstate highways. Created as support facilities to the federal highway system, these rest areas provide thoughtfully designed way stations for Minnesota travelers. Over the past 15 to 20 years, the rest area design process has been refined to encourage a coupling of design quality with construction economy. Several interested groups-the Federal Highway Administration, the Minnesota Department of Transportation (MN/DOT) and individually commissioned architects-have joined efforts in a comprehensive design process that values both continuity of design standards and unique architectural expressions

Because of its rural setting and its relative simplicity as a building type, Minnesota rest area architecture indicates the ability of local architects to design handsome and economical structures responsive to specific functional needs. The work of Minnesota rest area designers also clearly exhibits strong regional influences which are unfortunately less apparent in more complex building types in the Upper Midwest.

Beginnings of a National System

In the early 1930s, rest areas, known as "wayside rests," were little more than pull-off shoulders located haphazardly along the nation's two-lane highways. Their primary purpose was to provide a safe area to rest from the fatigue of driving. The American Automobile Association was a major lobbyist for the concept, applauding those states who first provided rest areas along their highways and encouraging a network of rest areas in every state.

The Interstate Highway Act of 1956, which outlined a comprehensive national system of high-speed roadways, also directed the individual states to develop rest areas as a support function. A financial boost for rest area development came with the 1965 Federal Beautification Act. As a result,

series of exterior decks and planters stepping down from the existing stucco house to a pavered patio and then back up to abut a perimeter wall enclosing the back yard. Also incorporated is a two-car garage, kennel, and trellis to shade the deck immediately adjacent to the house. Samuelson Cabin, Menagha Architect: Damberg & Peck Architects, Virginia and Duluth

The wooden deck shown lies under tall pines and oaks which shade the south side of this cabin. It conveniently serves the living, dining, and sauna areas. From the deck a path leads through trees down to the lake. In the fall and spring the structure protects the deck from northerly winds.







Photography: Bill Beard

Left:

Exterior, LeJeune Residence, Orono Architect: Bentz/Thompson & Associates, Minneapolis

Center:

Axonometric drawings of the first and second floors of the LeJeune Residence

The design of this large Lake Minnetonka home was determined mainly by its triangular site. The roof at the front of the house springs from a one and a half story height to present the necessary low profile. In three progressive tiers, the roof slopes more gently each tier to a high wall at the lake side to enclose the two story living room and bedroom areas. The high wall at the lake side is shaped with straight line segments in a gently bowing form to provide a single large bay window for the major living spaces. The living spaces look out over a deck to the lake and the back yard which is maintained in its natural state. The major living spaces are arranged around a fireplace form designed prominently to be the pivot point of the formal organization of the plan. The form continues through the roof, articulating all of the parts, and provides the single vertical accent to the house at the front.

Below:

Kircher Residence, Minneapolis Architect: Arvid Elness Architects, Minneapolis The Kircher residence consists of a





Left:

Goodman Residence, Minnetonka Architect: Jack Smuckler, AIA, Min neapolis

Below:

Aerial view of the Barret Residence Architect: Cuningham Architects Minneapolis

Barret Pool



Photography: J. Cuningham





Opposite page and left:

Feders Residence, Minneapolis Designer: Modris Feders, AIA Teresa Gabriel Feders

Below:

Feidt Residence, California Architect: Daniel Feidt

This addition to a 1926 bungalow for a family of four includes a bathroom/ sauna/sunroom which has access to a private second story deck. This deck is built over a screen porch which connects the downstairs living areas and the yard.



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The porch then becomes more important than the house, the patio greater than the living room, the house at the lake more beautiful than the ancestral home. The design of these decks, porches, patio, lake homes and cabins can also be more exuberant, freer, and even more romantic. They are designs for indulgence; a reward for having survived those winter months. And they also help us store up sun—as well as courage for the winter which inevitably awaits us.



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Cramer: The architect is going to be wrestling with many new problems in this decade. Might we expect architectural graduates to play a broader role in society?

Porter: I very much think so. Part of what's exciting about many of our schools of architecture is their responsibility o develop a real sensitivity to architecture in their students, whether or not they play that out as practioners. My own sense is that over the next several years the profession, proadly construed, will include more than the traditional practitioners. It will include educators, people in regulatory agencies, and so on. The challenge by society to the profession is going to be greater than it can meet, and it seems that schools are good places to anticipate what that challenge will be. The relationship between the making of places, environments and culture, and the relationship between the sense of ourselves, of our past, of our future-all these things are going to be viewed as increasingly important. Our graduates are going to have a difficult task before them, more difficult than meeting the rather narrow set of programmatic requirements that might come from a client.

Cramer:There has been some discussion that continuing education may become mandatory throughout the career of he professional. Many of the proposals along these lines ton't seem to make sense to the profession. Can you put any ideas into a framework that makes sense for the practicing professional?

Porter: I think one of the problems this question raises is that architecture, unlike some other professions, doesn't have a knowledge generative activity going on in every single school of architecture. Therefore, there isn't a place, as there is with medical schools, to return to in order to get instruction on the latest developments in energy or whatever area you are interested in. Those latest developments are often taken from practice. It seems to me that until the schools come along more strongly with their research programs that it would be wrong to try to locate continuing education programs in our schools of architecture.

Rapson: As I look over the continuing professional courses I must say that some of them look interesting, but I'm not sure that they're scholarly enough. I found a recent program on architecture and law sponsored by the MSAIA extremely rewarding because basically they were talking about things that I knew very little about, but I don't feel that I get that much out of most of the courses.

One thing that I find sort of depressing is that Iowa requires a certain number of points in order to maintain your registration. I got my notice from them the other day saying my registration would be up by the end of the month, and I felt this sense of scurrying about, trying to figure out how many of the things I do qulaify. Getting these mandatory points for the sake of maintaining a registration rather than increasing the depth of your knowledge seems rather ridiculous. I would hope that this isn't usually, the case. But getting back to something Bill just mentioned, I would like to know what you meant when you said that the schools shouldn't be involved in continuing education programs.

Porter: Well, all I meant to say was that they shouldn't try for a monopoly on it because I don't think that they have enough to offer.

Rapson: But they should participate.

Porter: Oh yes, especially as they build up their research and special knowledge capabilities. They should offer that or they should go to the society and get help in marketing their programs. In the past, people have suggested that the school should take over the continuing education function and I think that that would be a mistake.

Cramer: I would like to ask both of you what effect "getting published" in the national architectural journals has on the prestige of your schools of architecture or on you as individuals.

Rapson: I think that to those with young and impressionable minds its just great. I'm not published an awful lot but I think maybe it pays off when people in the profession are in an advisory position to a city or a company, and they look through the journal and say, well, this guy must be important, so they get him in on various projects. That's happened to me a few times but quite frankly, the number of letters I've gotten from being published in Architectural Digest are tenfold the number I've gotten from being published in the professional journals. Mostly, it's just trivial letters that come through. Everybody wanting to buy the plans, etc, but if you want to be somewhat crass about it, that's the best kind of coverage.

Porter: I think national publication is valuable because it gives your work a chance for national review. Although I don't always agree with their judgment about what's important to publish, a national arena for consideration is valuable. I think what we're lacking is a wide enough spectrum of journals at the national circulation level that publish a wide enough variety of work to get it out there for the profession to consume. My feeling is that we're on a much too narrow band. There is a lot of important but sometimes modest work that is not being published and there is some important commercial work that doesn't have the glamor of the front edge, elite projects. There are also a lot of architectural workers behind the scenes who are doing a lot of things in the regulatory area who are not receiving the attention they deserve.

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INTERVALETTS

An Interview with Ralph Rapson and Bill Porter on Architectural Education In The 1980s

Ralph Rapson, FAIA, who is head of the School of Architecture at the University of Minnesota, and Bill Porter, Dean of the School of Architecture at the Massachusetts Institute of Technology, are leaders in the field of architectural education. The following questions and responses speculate on the direction architectural education will take in the 1980s.



James P. Cramer: How will architectural practice be different in the 1980s than it was in the '70s?

Ralph Rapson: That's a very difficult question. I hear a lot about how enormously architectural practice has changed. I've been at it for 40 years and I have not seen that great a change really. There is a great deal more complexity and there is a greater awareness of all the elements and factors which come to bear. We treat them guite normally now, whereas a few years ago we could not involve all those segments quite so much. The biggest change I can think of is the advent of large architectural organizations that are so comprehensive that they can handle every aspect of a project within their own shop. Those of us with smaller and medium sized offices have to bring in these people as consultants or as part of our allied team, but more and more, you will see firms in the 1980s covering everything from transportation to electronics to God knows what. I have the feeling that this kind of operation will make it increasingly difficult for the smaller firms. I hope not. I hope that small traditional firms will always have an important place.

Bill Porter: I prefer to talk about what I hope will happen, rather than what I think might happen. I think it would be awful if the small and medium sized practices were to disappear from this country because they work on a range of problems which there is really no other way to get at. I would hope that what will happen is that architectural design will become much more pervasive and blanket our society. This way, when people want to do even modest things they will think of the architect who can assist them to shape the environment much more responsibly to their needs. I would also hope that where the poor are housed or where there are social services which are beamed at the less affluent part of our population, that again, architectural skills will be readily available. I hope very much that as we move into the '80s, architects retain the orientation towards the grassroots problems of our society. This orientation sometimes gets wiped out by the professional journals when they give their attention to the Pennzoil Buildings and the other flashy expressions that represent only a small segment of what's being done. I think that if architecture is seen as the servant of the rich and affluent only, then we have really lost a major battle that we have been waging for a long time.

Rapson: One of the major premises of the contemporary movement in architecture at the turn of the century was a moral understanding that this social concern was cardinal to our work.

Porter: That's absolutely right. One of my regrets is that the social awareness and vigor of the 1960s hasn't been picked up more today. One can do without the sort of antiintellectualism and lack of competence that practitioners in the late '60s exhibited in their zeal to serve social causes, but what I really deplore is the seeming absence of social concern today and the lack of the wish to serve the unmet needs of society. I just wish we could have more of that.

Cramer: The educational perspectives of the architectural students are changing. Do our schools have special needs that the profession, our state legislators, and other policy makers should be addressing?

Porter: Well, because I represent a private institution and Ralph represents a public one, we probably have somewhat different answers. I've felt for a long time that architecture suffers from having too low a priority among those institutions that ought to be supporting it. I think it's partly a function of how people understand architecture, what they think it does for society and whom they think it serves, but we need a lot more support for students. If we don't get that support, then the students who are going into architecture are not the most talented, they're simply the most affluent. And if they are only the more affluent they will tend to serve only the more affluent needs. The very best people worry about the whole range of things and we will continue to get some of those, but the best people are also drawn from across the spectrum of the society's economy. Without more support we can't guarantee that the whole range of needs will be attended to by the architectural graduates. In other words, there is a kind of self sealing quality to lack of support which then modifies the membership of the profession and guarantees that only a certain range of problems will be dealt with.

Rapson: Public institutions could also use considerably more support. One hates to keep harping on this all the time but it's really at the root of what one can and can't do. Even

Walker Art Center was the recipient of a \$5,000,000 challenge grant from the McKnight Foundation to implement a broad, long-range plan developed by the Art Center. Because the grant must be matched on a dollar for dollar basis by December 31, 1981, a \$10,000,000 fund drive will be initiated immediately. A major portion of the proceeds of the drive will go to endowment to support the Art Center's exhibitions and its programs in education, design, film, and performing arts. Some funds will be used to remodel and expand galleries and to provide additional space for educational services, exhibition preparation, offices and storage of the permanent collection. The drive will provide some funds for additions to the permanent collection of contemporary paintings and sculptures. Partial support for an urban public garden, now being planned by the Minneapolis Park and Recreation Board for park land adjacent to Walker Art Center-the former Armory Gardens site-is included in the overall plan.

Lorenzo D. Williams, FAIA, of Williams/O'Brien Associates, Minneapolis, has received a citation of Merit in the residential/multi-family category of the ninth annual Plywood Design Awards program jointly sponsored by American Plywood Association and Professional Builder magazine. Williams, one of 13 to receive awards and citations in this year's competition, was honored for Findley Place, an 89 unit low rise development. "A unique open space linkage between various units shows that the architect thought not only of the individual units but of the overall plan and how it affected the community around it. The apartments, oriented around courtyards and garden spaces, are in modules which can be used for one- or two-bedroom units. The structural arrangement of the module, simple use of material and detailing allowed a low unit cost to be achieved. This is one of the highest density projects we have seen and one that was beautifully planned," commented the awards jury.

Architectural Alliance East, St. Paul, has been selected to begin work on an energy efficient headquarters for the League of Minnesota Cities. To be located in the Capitol area of St. Paul, the facility will house the League's 25 member staff and serve as a conference center for its membership.

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The two winners and one alternate winner of the prestigious Rotch Travelling Scholarship for 1980 have been announced by the Boston Society of Architects. All three received their B Arch. from the University of Minnesota School of Architecture. The winners are: first winner, Marvin J. Malecha of LaVerne California, who received his B. Arch. from the U of M in 1973 and his Master of Architecture from Harvard Graduate Schoo of Design in 1974; second winner Loren Ahles of Minneapolis, who received his B. Arch. from the U of M in 1975 and Master of Architecture from MIT in 1977; alternate is Mark K. Robitz of Cambridge Massachusetts, who received his B. Arch. from the U of M in 1974 and his Master of Architecture in Urban Design from Harvard Graduate School of Design ir 1978. The Rotch Scholarship includes \$13,000 for nine months abroad for the first winner, and \$7,000 for five months abroad for the second winner.

Construction is expected to begin this fall on a \$7.8 million **shopping center** on Shingle Creek Parkway in **Brooklyn Center**. Plans include an eightscreen theater, a restaurant, and approximately 12 shops. Architect for the project is **Korsunsky**, **Krank and Erickson Architects**, **Inc.**, St. Louis Park. The developer is Commercial Partners.

The new 100,000 square foot corporate headquarters for **Cooperative Power Association**, currently under construction in Eden Prairie, is scheduled for completion the first quarter of 1981. The buiding, designed by **BWBR Architects**, St. Paul, features energy conservation. Built into a south-facing hill, the structure will receive passive solar heat from the south, and it is earth sheltered on the north.

Governor Al Quie appointed five new members to the State Board of Architecture, Engineering, Land Surveying and Landscape Architecture. The 17-member board now includes: Bernard H. Larson, Hastings, Dakota County Surveyor representing surveyors; Donald Stanius, AIA, Duluth, representing architects; Elaine M. Fink, St. Louis Park, a former member, and Jim Johnson, St. Paul, a marketing manager at 3M Co., both representing the public, and John W. Pearson, St. Paul, 3M vice president, representing engineers.



R. L. Engel and Company, Minneapolis, is renovating **107 North Third Avenue** for Sight and Sound Productions, Inc. Located in St. Anthony Falls Historic Preservation District in downtown Minneapolis, this 100-yearold structure is being revitalized to serve as the corporate headquarters for Sight and Sound Productions, a firm which produces films for industry and television. The interior renovation design utilizes both existing and new materials to produce spaces evocative of the industrial character of the St. Anthony area.

Construction is underway on the first phase of a major new office center, which will include a 26-story tower overlooking the Minnesota Valley, located at the intersection of I-35W and Highway 13 in Burnsville. The new multi-million dollar development, called Concorde Centre, is located on a 33.8 acre site immediately adjacent to the Diamondhead Mall. The project, a Planned Unit Development, should be completed in 1985 and is expected to include nearly 45,000 square feet of gross office space. The first phase, now under construction, includes the first of six town office buildings. Occupancy is scheduled for mid-July. Architect for the project is Winsor/Faricy Architects of Saint Paul. The general contractor is Adolfson & Peterson, Inc.

The AIA National Convention, held

recently in Cincinnati, Ohio, marked the first public viewing of the theme and logo for next year's convention which is to be held in Minnesota May 17-20 at the Minneapolis Auditorium and Convention Center. The theme, "Energy and Design", and its accompanying graphic display, designed by James E. Johnson, Johnson + Johnson Graphic Design, were the center of attention in the Cincinnati Convention Center registration area. The promotion effort, supported by a Minnesota contingency of over 40 people, was termed a "huge success" by 1981 Host Chapter Chairman, Tom Van Housen, AIA, "The booth was the most outstanding and creative pre-convention exhibit done by any architectural component in the country", he said. Committees planning Host Chapter activities for the Minnesota Convention under the direction of Minneapolis and Saint Paul chairmen Peter Rand, AIA and Fred Shank, AIA, have been working for several months organizing tours, sports events, the Host chapter Party, Exhibits, and many other special events.

The Association of Collegiate Schools of Architecture, in conjunction with the U.S. Department of Energy and the Brick Institute of America, has announced the winners of its DESIGN + ENERGY competition, the largest student design competition ever undertaken in the U.S. The competition included two categories, one for an "International House for University Students" and the other for "Open" submissions. First prize winners were Robert Nalls of the University of Pennsylvania and Scott Barton of Renssalaer Polytechnic Institute. Both second prize winners, who received \$1,000 each, are students at the University of Minnesota School of Architecture. James Rasche, Milwaukee, Wisconsin, took second in the International House category. His project involved the rehabilitation of an existing residential block adjacent to the U of M for international student housing. Robert Vanney, of Wausau, Wisconsin, was awarded second prize in the Open division for his design of a commercial center, intended as part of Saint Paul's Energy Park. Both problem options emphasized the application of passive solar energy systems, energy conservation, and the appropriate use of brick masonry.





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Abuilding a building

They said she said. What. A rose Is a rose. Is a rose. Is. A. Rose Rose rose rosing rose red. Red rose. Redrose. Loverose. Love love loving love. Redrose.

Garden of flower flowers. Flowering. Flowers of flowers flower flower. Flowing. Flow. Flowing flow flow falling. Flower flower. Bed flower. Bedflower. Flowerbed beds beds. Flowers.

Abuilding a building. Build abuild. Build. Built build a build. Building building. B. Buildup. Up up up. Up. Upbuild. Building. Up up Up. More up up up building up. Building build built. B. Building.

Free the tree tree. Trees. Three three, - Root a tree Tree tree tree. Roottree, s. Rooting treetree trees. Tree tree tree Root. Trees tree tree tree root. Ooooot, Root root root root root. Tree,

They said she said. What. A building Built. Is built build. Is. A. Flower Flower flowering. Tree tree trees. Flower tree tree treeflower. Built. Build built build build. Building. B.

To root.

with love and admiration to Gertrude Stein

Bernard Jacob

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Trails: Environmental Symphonies For The Senses

James Dustrude

As I was slogging through the swamps of the Minnesota Valley this spring doing part of the obligatory visual analysis for the Minnesota Valley National Wildlife Refuge/Recreation Area/State Trail, and right after I'd gone in over my hip boots looking for a dramatic shot of the Part Richards grain elevators, it hit me! Trail planning and design is a lot like a combination of photography and musical composition. Like the photographer, we search for dramatic, framed views (sensory images) to include along the trail route. Then we put those views into some meaningful sequence, much like a composer orchestrates musical sounds in a symphony.

Throughout past history, trails, as the forerunners of present day highways, have long been used for transportation purposes. However, the recreational function is a relatively new addition to the idea of trails. This "adaptive reuse" of the older concept bears some scrutiny.

Soon after the much publicized Sparta-Elroy Trail was developed on an old railroad grade in Wisconsin, the State of Minnesota got into the act with a trails program of its own in 1967. Most of the early recreational trails were developed rather uneventfully. Today, however, trails are surrounded with controversy, with an extremely vocal opposition. If trails are to remain viable, they must be desired and used by a significant constituency.

Trails have a number of clear attributes. As part of a larger recreational picture, they are valuable in putting us in direct contact with our heritage, which in this relatively young country still seems to be largely a natural one. Moreover, they provide physical exercise, cost very little to use, require little land area, and require little or no energy consumption.

Yet Americans can hardly be described as rabid trail users. Especially compared to Europeans, we don't take trails at all seriously as a mode of recreational travel. We opt for automobile travel instead. Assuming we have the energy and economic means, it's not hard to understand why the ease and convenience of motorized travel is so desired. Add to this the fact that many trails are downright boring, with little appeal to any but the most inveterate trail users, and their lack of popularity becomes abundantly clear.

But the time seems ripe for change. While world politics is affecting the energy and economic climate, designers have a historic opportunity to further catalyze a shift toward recreational trails—by making them not just functional, but interesting and exciting.

Herewith, a formula to do just that.

Assume for a moment that memorability, or the strength of desirable environmental impressions (the provervial strong sense of place as opposed to vague recollections) is an accurate measure of a posstive trail experience. How can environmental designers help to create this heightened state of awareness?

We know from past experience that we can:

1. Go for a variety of the best images—views, smells, sounds. In *Managing the Sense of the Region*, Kevin Lynch has pointed out in that we should aim not just for scenic views, but especially for those which are uniquely characteristic of a given landscape region.

2. Amplify the impact of those images by simultaneously deploying all the design tricks in the book. Roger Martin has pointed out that using a series of sharply banked simultaneous horizontal and vertical curves on a trail through



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a hilly area conveys not only the visible effect of hills, but their kinesthetic effect as well—akin to skiing through moguls.

3. Sandwich each key image within an anticipation—climax—relief sequence.

4. Further articulate each sequence by using design techniques analogous to those of musical composition. For example, the effects of musical rhythm can be achieved by controlling the relative frequency with which the view from the trail changes; meter or tempo is defined by the length of time any given type of view is present; tonality, or change of key can be approximated by changing the elevation of the viewer or the length of the view, thereby strengthening the impact of a view by a variety of repetitions; musical pauses can be affecting models for locating trail rest areas, and so on, if strategically placed.



Photography: Chris Larson

The result is a set of discrete, but high quality images and sequences of relatively short duration. On a 75-mile long trail it is conceivable that a collection of high quality images and short sequences would fall short of creating an overwhelming experience. What does this formula prescribe that will avoid either chaos, or monotony (when even superlative views lose their appeal)?

Two things. First, it suggests, based on highway visual studies (Hornbeck, Visual Values for the Highway User) that any given view, (not including variations) can be maintained for an average of only 90 seconds. Views of added inherent interest can be tolerated for proportionately longer periods of time (hypothetically water: 3-4 times; long distance views: 2-3 times; diverse vegetation and topography; 2-3 times, etc.). Following these rules of thumb in the case on the Minnesota Valley, capitalizing on 42 different environmental image types (e.g., rock cliff, rolling hill, stream, etc.) and using an average of the trail design and alignment variations (e.g., elevation, degree of curve, degree of spatial enclosure, width of trail surface, etc.) we would have enough different experience types to fill up approximately 24 miles of 8 mph trail or 10 miles or 2 mph trail without repeating the same experience.

Second, our model borrows the form and structure of a sonata-style symphony as one model of a desirable balance between unity and variety.

A symphony consists of three separate parts, or movements, which can often stand alone but, when put together, result in a highly developed set of theme and subthemes. They can vary in length, tempo, key, and subthemes. They may or may not repeat within each movement.

For simplicity, the basic structure can be described with the following symbols, with each letter indicating a different subtheme; each "primed" letter

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indicating a variation on that subtheme; and A being the principal theme, B a subordinate theme, and C a closing theme

1st Movement (exposition; long & fast): ABC

2nd Movement (development; moderate length & speed): A'B'A C' DC A'B'A

3rd Movement (recapitulation; short & fast): ABACABA

In the case of the Minnesota Valley Trail,

A might be views of the Minnesota River at the bank

A' might be views of the Minnesota River from a higher elevation

B might be views of the bluffs from below

B' might be views of the bluffs from above

C might be views of the floodplain from below

C' might be views of the floodplain from above

D might be views of the industrial activity and speed, or tempo might be varied by changing the length of time a given area is viewed

Within the context of this rough model, infinite variations are possible. It's not meant, even in music, to be a mold into which creative ideas must be forced. And currently, it is only a very rough guide for trail planning and design.

Right now, all of this is a bit academic. We'll see how valuable this tangential exercise has been when the design has been implemented.

Better yet, start planning your 1984 Minnesota Valley Trail bike or backpacking weekend now and test it for yourself. The proof will be in your experience.

James Dustrude is a Resource Planner for the Minnesota Department of Natural Resources. He supervises the DNR's role in the Minnesota Valley Project.

Jerry Bailey: Landscape Architect

Cynthia Schuneman-Piper

Jerry Bailey, educated at Iowa State University with a B.S. in Landscape Architecture, has spent the past 13 years creating outdoor environments. His projects can be found in mountain recreation areas and planned communities and developments, both local and farther afield.

Since 1967, Bailey has worked under the banner of Bailey & Associates. But in order to fulfill a personal philosophy, he formed Arteka, Inc.

"To design, to build and to feel the satisfaction of both like the sculptor" is how Bailey describes his feelings about landscape architecture. Incorporated in 1970, Arteka is a contracting company with a design-build division and a wholesale landscape products division. Headquarters for both Bailey & Associates and Arteka are in a renovated Victorian house, just off Hwy. 494 in Eden Prairie, Minnesota.

The name "Arteka" describes this sensitive passion for the earth. It is derived from the Greek word, "tektonikos," which means "the science or art of assembling, shaping or ornamenting materials in construction." Simply put, Arteka means creative development related to the land. The corporate logo represents life and growth, shown in an abstract form similar to a plant as it emerges from its seed.

Each of Bailey's projects is designed in minute detail. Whether it's a large project such as the open-space plan for a new town or something as small as encasing a traditional STOP sign, the result is something out of the ordinary.

Cynthia Schuneman-Piper is a Twin Cities freelance writer.



This life guard stand and diving platform harmonizes with the location, the beach of the man-made lake in the planned community of Jonathan, near Chaska, Minnesota. Working closely with Ben Cunningham, Jonathan's planner, Bailey & Associates began working on the open-space planning and design in the early '70s. Arteka, Inc. followed through with most of the implementation.

Bailey's design uses rough-sawn cedar placed diagonally. This allows the structure to carry its own weight amidst the heavy influence of the vertical trees.

On a pedestrian node of the Jonathan Greenway System, and part of the Mill Pond Condominium complex is this shelter structure



This pirate ship playlot fits right in at the base of #2 ski life in Vail Village. Located toward the mountain, and in full view of concerned parents who wish to sun worship and sip wine at a nearby restaurant, this structure is an instant attraction. Both adult and child race to explore its depths and heights through ropes, crow's nest, balcony and portholes.



with cantilevered deck. It is supported by exterior glue-laminated fir beams and concrete butresses. Its position on site is nestled into a hillside, overlooking a man-made pond, yet it affords easy access from the extensive trailway system. The arch-shaped culvert supports the roadway and allows pedestrians access under the road to a park on the other side.

These structures show a new design approach to an old tradition.

Located in one of the many developments Bailey & Associates and Arteka, Inc. have implemented, these ideas are definitive on their own.

There are numerous other projects where Bailey has been involved in something new and different. In 1972, Eden Land Corporation, developers of Edenvale, was in the process of formulating an extensive outdoor living landscape plan. Included were plans for an outdoor exercise course. Don Peterson, then president of Eden Land Corporation, had seen the concept while vacationing abroad. The Vitae Life Insurance Corporation, a company based in Zurich, Switzerland, had sponsored the building of these courses throughout Switzerland. The intent was to promote health and longer life.

Peterson contacted VITAE for permission to build a course in America. New verbiage, symbols, and graphics were developed for each station to convey the exercise to be completed. The distance between stations could vary from 100 to 200 yards. A full course included 20 stations, but 10 would suffice if space were limited.

Edenvale became the site of the first VITA-PARCOURS in the United States.

Today this course is manufactured for the commercial market by Landscape Structures, Inc., Delano, Minnesota. They also manufacture module playground equipment.

Steve King, a former associate of Bailey & Associates is president of Landscape Structures. He has taken the concept one step further. Wheel Course, an exercise course for the handicapped in wheel chairs, can be constructed in small spaces for the limited site.

CICC Retainage Recommendations*

4.6.1 General and Supplementary Conditions October 1, 1978

RETAINED PERCENTAGE

The use of retainage against progress payments has traditionally been recognized by all segments of the construction industry as a primary method of protecting the ability of the Owner to complete his project. Although some segments of the industry nation wide are suggesting zero (0) retainage, CICC of Minnesota recommends continued use of retainage; however, at a lower but uniform percentage rate throughout the project rather than a high starting rate and a reduced or zero (0) retainage rate as completion nears. It is recommended that the Article 9 of the AIA General Conditions be modified by adding the following supplementary condition:

Refer to Subparagraph 9.5.1 Add:

There shall be retained 5% from each progress payment until the work is substantially complete, at which time the Architect may recommend release of retained sums in accordance with paragraph 9.8, or final payment in full in accordance with paragraph 9.9.

It should be recognized that the retained percentages represents money that has actually been earned by the Contractor and the withholding results in a hardship for he is deprived of the use of funds. To alleviate this hardship, yet provide the protection the retention offers the Owner, it is recommended that the following paragraph be added:

Refer to Subparagraph 9.5.1 Add:

Prior to the start of construction the Owner and Contractor shall select an escrow agent to receive the retained percentage and enter into an escrow agreement. When each progress payment becomes due, the Owner shall issue two (2) checks. One, in the amount due the Contractor, shall be issued to the order of the Contractor. The other, in the amount of the retention, shall be issued to the order of the escrow agent. The interest and principle shall accrue to the Contractor. In accordance with the provisions of the contract the escrow account shall be released to the Contractor under the provisions of Article 9.7.

When the escrow provisions for retainage apply to a contract, it is recommended that sub-contract agreements provide for a distribution of accrued interest to all major subcontractors and suppliers according to their interests.

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PIPING INDUSTRY DEVELOPMENT COUNCIL

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OF MINNEAPOLIS AND ST. PAUL

ARCHINTECTIORE / MMMESCOTA / August 1980

Charles Wood: Landscape Architect

Charles Wood, a graduate of Iowa State at Ames and the Harvard Graduate School of Design, established his own firm, Charles Wood and Associates, in 1963. He became, in the ensuing years, one of the most sought after landscape architects in the region. He has been a consultant to most Minnesota architectural firms at one time or another and has thus been involved in a great many major projects. His understanding of the architectural process makes him a valuable team member in the development of a site concept, long before the specifics of paths and plant materials are discussed.

Locating a structure on the site, developing a building design which generates certain relationships with the site, and shaping and forming that site are the fundamental tasks of an intelligent collaboration.

Wood's reputation has spread far beyond his immediate area. His most famed out of state project is probably the landscape design for the U.S. Embassy in Moscow which was designed by the San Francisco office of Skidmore Owings and Merrill.

Blue Cross Blue Shield, Eagan Architect: Cerny Associates and Architectural Alliance Landscape Architect: Charles Wood



Exterior, Blue Cross Blue Shield



Site Plan, Blue Cross Blue Shield



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Interior Planting, Blue Cross Blue Shield

Loring Park: A Neighborhood In Transition

Bruce N. Wright

In Loring Park, all of the forces and conflicts that reflect the character of Minneapolis come together. The neighborhood serves as a microcosm of the larger city. It is here that almost the entire range of urban activities take place; in many instances the best activities the city has to offer can be found in this neighborhood. It is here that the latest national trends in city redevelopment can be seen. It is here too, that some of the best architecture in the city can be found, with projects like Walker Art Center (Edward Larrabee Barnes), the Guthrie Theater (Ralph Rapson), the Loring-Nicollet Mall extension, Peavey Plaza (M. Paul Friedberg and Associates), Greenway Gables (Bentz/Thompson) and Orchestra Hall (Hardy, Holtzmann Pfeiffer and Hammel Green and Abrahamson). But some of the bad aspects of urban growth can be found here as well: conflicts between old neighborhood and new developments, rape and sexual harassment, excessive noise and pollution from snarled freeway interchanges, lack of adequate winter windbreaks, and yes, even bad architecture.

Minneapolis can be characterized as a medium-size city with a small town temperament and big city aspirations. How else can one explain why in a community of this size there is the leading regional repertory theater in the country, two major art museums, a major orchestra, an opera company, half-a-dozen equity theaters as well as three times as many amateur theaters, three or four dance companies, a major art school and the biggest of the Big Ten universities in the Midwest? A surprising number of these cultural activities take place in, around, or at the fringe of the Loring Park neighborhood.

Wolf Von Eckardt, in a review of "Open Spaces: The Life of American Cities"¹ states that urban life and amenities are a direct result of urban open space. "It is not so much what happens in the buildings," he says, "but what happens in the spaces in



Loring Park 1891.

between—the parks and parklets, the squares and small plazas, the avenues and streets—that determines the quality of the city. The open spaces bring forth pleasure, recreation, human encounters, communal celebration—in short, the essence of city life."

In many ways, Loring Park embodies the spirit of the larger city. City planners have redirected their efforts at those portions of the neighborhood that seem to need the most attention. Redevelopment of rundown areas has been greatly encouraged and as a result, the quality of life city-wide has improved.

But not everyone has been happy about the changes. Some neighborhood residents have felt that city planners and private developers have teamed together to wreak havoc on their peaceful community without regard to existing conditions or residential patterns. The only neighborhood grocery store, Brentwood grocery, was driven out of business by the recent arrival of a 7-

Photos courtesy of Minneapolis Public Library

Eleven store around the corner. The residents fought that vehemently but failed. A car wash that had been in the area since the 1950s and took most of its clientele from the downtown business executives traveling up LaSalle Avenue was forced to close because the construction work on the Greenway effectively blocked any through traffic. One trio of old apartment buildings is at present involved with litigation in an attempt to prevent demolition.

So, it hasn't been entirely without incident that Minneapolis' most intensely urban neighborhood has experienced the greening of the city in the 1970s. How did it come to have such diverse composition and intense activity? In order to see the present situation in its proper perspective, it might be helpful to retrace a few steps in the history of Loring Park itself.

More than 125 years ago a stubborn but proud Democrat from Farmington, Maine came here and settled in a beautiful little valley which promised good



Lowry Hill and the bottleneck between 1910 and 1914. To the left is St. Mark's Cathedral Church, built in 1908.

The second Minneapolis Armory on the Parade Grounds at the foot of Lowry Hill was completed about 1906.

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soil for crops, plenty of wild game in the hills nearby and fish in the small lake. That was in 1854, when Joseph S. Johnson became the first white settler to reside in the Loring Park Valley. The lake (soon named Johnson's Pond by the neighbors) flowed northwest through a marsh area (now the smaller pond) became a stream wandering north, then west, then north again past what is now the corner of Harmon Place and Hennepin Avenue, through the area that is presently a freeway interchange, through the Dunwoody Institute fields, and on north, eventually joining Bassett's Creek to flow into the Mississippi.

As the city prospered, so did the park. Many a young millionaire settled in the fashionable Johnson's Ford area. Such wealthy men as George A. Pillsbury, W.H. Dunwoody, Thomas Lowry (owner of the streetcar system), Allen Harmon (Deacon of the Free Will Baptist Church), T.K. Gray of Gray's Drugstore chain, and it is even rumored that J. Paul Getty was born on Hennepin Avenue not far from the park.

In the meantime, Johnson's Pond was renamed Central Park when the city created a Board of Park Commissioners in 1883, just 16 years after the incorporation of Minneapolis. To develop the park system, Professor Horace W.S. Cleveland of Chicago, a landscape architect and protégé of Fredrick Law Olmstead, was hired. One of the first things Cleveland proposed was the enlargement of Johnson's Pond and in the winter of 1883-4 the frozen marsh at the north corner of the park was removed, creating the Board's first artificial water area. The addition of electrical lighting, swans, and boat rental over the years kept pace with the ever increasing public demand for the use of the park. At a ceremonious tree planting event on December 20, 1890, the park was named in honor of Charles M. Loring, first president of the Park Board and a prime mover in establishing a parkway system in Minneapolis.

The turn of the century, when the intersection of Hennepin and Lyndale avenues became the busiest in town, saw an increasing number of horses, pedestrians, streetcars and automobiles bring new development to Loring Park. In 1907 one of the city's first automobile showrooms opened near the corner of Hennepin and Harmon Place. And in 1911, Leslie H. Fawkes built the new headquarters of the Fawkes Auto Company at 1625 Hennepin; other dealers soon joining him in the area that became known as "automobile row." As customer demand grew Fawkes added buildings, until he built his third and largest building at the vacated corner of Harmon Place and Hennepin. Steve Antenucci, in a report called "Loring Corners"² describes that early showroom: "The building, using steel and brick and reinforced concrete, was a jigsaw puzzle of construction. The first piece, finished in July, 1916, was a three-story building-with its showroom facing Loring Park. A mansard roof capped the building." This proved to be a necessity: "To avoid columns obstructing the main show floor, trusses were used to support the roof and the mansard installed atop the open trusswork," he says. This building stands today at its original location.

The Depression soon dampened the high times, and appliance companies, publishing houses, novelty companies and makers of pinball machines replaced the auto dealers. A second World War brought more changes, the biggest being the exodus to the suburbs when returning GIs began looking for homesteads. Loring Park was beginning to lose its prestige. The new wealth looked to the western suburbs, and Hennepin Avenue and Wayzata Boulevard helped take them there in their new automobiles. Despite the opening of T.B.Walker's Art Museum, the neighborhood continued on a gradual downward slide, as fewer tenants meant lower rates and a lower class of clientele. By the late 1950s many companies had left for new industrial parks and suburban locations. And by the mid 1960s a major freeway exchange had all but choked the neighborhood to death, encircling the park and efficiently bringing thousands of cars from the faroff regions of Bloomington, Richfield and Golden Valley past Loring Park into downtown, but never through the park.

Things continued on that course until the 1970s when the city realized it had better do something about the increasing numbers of prostitutes and pimps as well as the rising number of rapes. The introduction of Metropolitan College students, theater people from the Guthrie and young people moving back from the suburbs for better proximity to a downtown job contributed to these confrontations.

In June, 1972, the City Council designated a portion of the neighborhood as the "Loring Park Development District" with a directive for the Planning Commission to study the area. And in April, 1973, M. Paul Friedberg & Associates was retained as urban design consultant to make proposals for the design district. The Loring Greenway and Peavey Plaza are the direct results of that action.

Now, in the 1980s, with the resurgence of a strong community and the influx of wealth, the Loring Park neighborhood needs concerned citizens, much like Charles Loring himself, to maintain and improve what has evolved. For the demands made on the area will surely increase, even beyond what has transpired. The creation of such "urban amenities" as the Loring Greenway will help greatly in meeting those demands. But it has a long way to go before it can provide the type of service it is intended to. As it stands, there are too many rough edges; undefined boundaries where developments of some sort are to take place but haven't yet. Until these start to happen the Greenway will continue to have an



1874 photo of Johnson's Lake as viewed from the top of what was to be called Lowry Hill.



oring Greenway



Loring Park, 1980 Photography: Bruce N. Wright

unfinished look and feel to it. It is designed as an urban park that works best when contained on two sides by high walls; a sort of urban green crevice in the rocky terrain of a central business district. Ideally, Loring Greenway should be located in New York City where an "urban wall" is really a wall, not in Minneapolis where urban characteristics are tentative at best and anemic at worst (Lake & Nicollet is a case in point). The butting up of green shrubs and parkway to developments like 1200 on the Mall, (the Hodne/Stageberg Partners), the Merchandise Mart (Peterson Clark and Associates), Greenway Gables (Bentz/Thompson) and the Loring Way condominiums (Hodne/Stageberg Partners) is good.

The linear, mountain stream-like quality of the Greenway becomes evident and complements, even enhances, what could have easily become a typical city development project as seen in numerous examples throughout the US. When those gat-toothed areas are filled it may become the best urban park in the country. With Loring Park at one end and Peavey Plaza (Minneapolis' finest public gathering space) at the other the city can start to produce the kinds of experiences a real city has to offer. Loring Park is well on the way to providing that. Now, if they could just get a few good restaurants and a movie theater in the neighborhood. . . .

1. "Open Spaces: The Life of American Cities" by August Heekscher; Harper & Row.

2. "Loring Corners" by Steve Antenucci, 1980

Bruce Wright is an architect and freelance writer who serves on the Architecture Minnesota Committee.

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Fountains: Making a Big Splash in Twin Cities Parks and Plazas

Photography by Rodger McBride



Clockwise from Center:

Gateway Fountain, in front of the Towers Apartments Berger Fountain, Loring Park Fountain in Irvine Park, Saint Paul Fountain in Rice Park, Saint Paul Richardson Fountain, Nicollet Mall



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Control Data Corporation has been awarded the 1979 Minnesota Energy Saver's Award of Excellence for its outstanding efforts to conserve energy at its new World Distribution Center in St. Paul. United Properties, also of St. Paul, was named the state runner-up in the competition. Construction of the World Distribution Center provided Control Data Corporation the opportunity to test and demonstrate the value of energy efficient construction and solar energy. Because of its construction, which includes some earth sheltering and the installation of the largest privately financed solar collector in the U.S., the facility is expected to use only 25% of the energy which would be expected of other new construction. State runner-up, United Properties, was selected for the development of an energy management program for the eight commercial buildings it manages. Modifications were made to heating, ventilation, cooling and lighting systems as well as building retrofitting. United Properties also developed an energy management manual and an annual preventive maintenance program, and conducted miniseminars for individual building managers and engineers. This is the fourth year the Energy Saver's Award of Excellence competition has been sponsored by the Natural Gas Council of Minnesota and the Energy Agency. The competition recognizes Minnesota industries, commercial businesses and non-profit organizations which have done an outstanding job to conserve energy.

Kenneth H. Walijarvi, AIA, died April 22. He was 56. Educated at the University of Minnesota School of Architecture and the Massachusetts Institute of Technology, Walijarvi taught at a number of schools of architecture around the country before establishing a private practice in Saint Paul. He began his own firm, Walijarvi and Associates, in 1959. The firm designed many outstanding educational buildings and churches in Minnesota, including the Chisago Lakes High School, Sandstone High School, and Rochester First Baptist Church. In addition to his membership in the MSAIA, the Edina architect was also active in a number of civic organizations.





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Images and Ideas

"City Segments" Exhibition

Douglas Foster

The work of architects is not often shown in museums and galleries. You can, of course, see architectural exhibitions in public places from time to time. But to take the innovative ideas of a select group of designers and to beautifully mount them under a common theme in a gallery setting as Walker Art Center did with their "City Segments" exhibition is truly significant. "City Segments" was about concepts of urban design and how 30 architects from the U.S., Europe, Canada, and Japan express their concepts in graphic form. It is particularly important that many of the works continue a common thread in design today; that is, the transition from the pragmatic to the poetic-a concern with the symbolic, the mystical, the surreal. This



A Cooperative of Mexican-American Grape Growers, Emilio Ambasz



ARCHIMTECTITURE / MINIFESCOTA / August 1980

s a transformation from the early peiod of the modern movement which began with an emphasis on functionlism, simplicity and the abandonment of past traditions and symbolisms. Tolay, as this exhibit indicates, there is a less strict approach to design—an approach that is more inclusive and accommodating of a variety of influences past and present.

The exhibition could be viewed at two evels. At one level is the stunning visual quality of the graphics. In recent years, architects have been discovering or re-discovering techniques that make urchitectural drawings works of art in hemselves. The typical architectural graphic forms are there—plans, secions, elevations, perspectives, etc. but the use of color, texture, form, composition and illusion are almost 'painterly'' in many presentations. I suspect that many enjoyed the exhipition from this standpoint alone.

At another level is the idea or urban lesign concept of the project. While viewing the exhibition at the "idea" evel I had to admit certain biases

which stem from my own urban design experience. I was looking for the small gesture that is supercharged with intensity of meaning and experiencesomething that's dynamic and moving but which can be realized in the incremental process of city re-building. I was looking for really innovative concepts of greenery in the city-something more than the usual assemblages of potted trees and plants in malls and plazas, something that makes a profound statement about nature and the way we live. Above all, I searched for statements that transcend cliches and gimmicks-statements that reflect cultural traditions, are rich in symoblism, and offer a poetic vision.

The work in this exhibition was of extremely high quality, but one project completely absorbed me with its idea, symbolism and poetic nature. It is a design by Emilio Ambasz for a cooperative of Mexican-American grape growers. In a haunting series of renderings, Ambasz has created an almost surreal setting for a settlement of workers in a vineyard. Work and residence

are combined, under a leafy canopy, by the creation of small square living environments defined by hedge walls. Within each square, the worker sets up a mobile house or brings in a trailer. The environment of greenery, the hedge walls clipped to recall forms of Spanish adobe architecture and the light filtering through the leafy texture over lush clusters of grapes all contribute to an enchanting scene that is more fantasy than reality. Still, it causes us to rethink the possibilities of greenery for shaping the environment in unusual ways and for making symbolic gestures with an economy of means.

Other projects of interest to me were the Town Hall by Aldo Rossi and the subway suburb by Robert Stern. Both allude to cultural traditions of their respective Italian and American backgrounds. Rossi's work is intriguing for its subtle, suggestive recall of historical images and for the influence the artist Giorgio De Chirico, a precursor of surrealism. DeChirico's influence is seen in the lonely, surreal quality that prevades much of Rossi's work.





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There may be a lesson here for American cities. In this country, urban designers tend to emphasize exciting environments pulsating with activity (see the magazine illustrations) but surely there is room for the haunting, contemplative urban moods suggested by Rossi. Stern's proposal for a new residential area in an abandoned urban area also alludes to traditional forms. but more explicitly than Rossi. His subject is the American suburban dream. Stern, who, like Robert Venturi, enjoys giving the commonplace a different twist, has brought suburban motifs into the central city and through slight shifts of siting and design has provided a new outlook on a residential pattern that planners and designers once found repugnant.

The proposals of Ambasz, Rossi and Stern are characterized by subtle gestures that carry great intensity of meaning and experience. They represent but a small segment of a large spectrum of ideas in this exhibition. There is a range from the practical to the unrealizable and from the small to the grandiose. One can experience a variety of responses-delight, surprise, shock, outrage-but the cumulative effect is stimulation and inspiration. Can it have any effect on the city building process which seemingly grinds on inexorably? In response, it must be emphasized that it is extraordinarily hard to achieve consistently good results in urban design. The cast of characters involved in decision making is endless, funding is always a problem and finally, the process inherently extends over very long periods of time. The problems are extremely difficult but we must persevere. To do so, there must be a constant infusion of images and ideas upon which to draw, ideas that are more than reruns of stock solutions from the magazines and ideas that offer more than gimmicky technology and meaningless jargon. Nothing less than innovative and visionary concepts are needed to change attitudes and perceptions about what a city can be. The excellent "City Segments" exhibition made an outstanding con tribution to that goal.

Douglas Foster is an architect an urban designer with Saint Paul's De partment of Planning and Economi Development.

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Saving Energy in a Suburban Park

Peter Johnson

The city of Minnetonka has 40,000 inhabitants living on twenty-eight square miles. Planning for and providing capital funds necessary for construction of roads, water, and sewer lines is a major concern of this and other suburban cities. The expense and logistics of routine city maintenance is an added burden for a community already strained under the tensions of growth.

In the midst of development pressures, the public and private sectors vied to acquire desirable acreage. Original planning for the park system was begun by Theodore Wirth, who envisioned a green corridor along Minnehaha Creek as it led from Gray's Bay on Lake Minnetonka east to Minnehaha Falls at the Mississippi River.

In 1973, Minnetonka was engaged in a major program of land acquisition for parks. Citizens and staff also realized that limited development of a portion of the new park lands was required to



Park Shelter, Minnetonka Architect: Dwight Churchill Landscape Architect: Peter Johnson

maintain the interest of the community.

Construction of prototype park shelters was one of the first opportunities to provide visibility for the program. A building that would require only a low level of maintenance was desired. Landscape architect Peter Johnson worked with Dwight Churchill, architect, to create a shelter which would function as a warming house for skaters and also provide storage space for summer sports equipment.

A concrete block structure was designed with the interior illuminated by a skylight. The clerestory interrupts the roof, which is of natural cedar shingles. Niches on each side of the entrance accommodate chemical toilet enclosures, easily serviced. These are accessible to park users even when the shelter is locked.

The necessary warmth is provided by a suspended gas space heater when the building is supervised by a park attendant.

The limited number of windows and lack of conventional plumbing were energy saving features not fully appreciated at the time of construction. A sealant was used to treat the natural concrete block walls, allowing for the removal of possible future graffiti. (Residents and city maintenance force were unhappy with the natural gray surface and painted it. Their apparent concern for esthetics might also have been related to a self serving interest in ensuring an annual painting assignment.)

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Play Area, Minnetonka Landscape Architect: Peter Johnson



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HETTERG

To the Editor:

Beverly Vavoulis' article on Werner Wittkamp (June, 1980) draws attention to some of the almost forgotten "early modern'' architecture of Minnesota. Work of this period is almost totally obscured by the self serving architecture of today, or the present wave of interest in things Victorian (apparently "Victorian" is dying as slow a death as the "Gothic").

The 1972 Photo in the article shows the Commodore Bar after the 1961 "circus tent" stripe painting on the ceiling and "popcorn stand" canopy addition at the south end. Ceiling painting, canopy, and carpeting were removed in 1976.

As part of the Commodore Condominium Development, the bar has been restored to Wittkamp's original design. This photograph shows it as of January 1980, with newly leafed 24 carat gold domes. About one third of the mirrors were replaced after the explosion. The back lit pink louvered glass wall at the south has been restored. Except for similar louvers removed from behind the bar (between 1943 and 1961) and four small missing columns of unknown material, the space is intact and open for business today.

Tom Blanck, AIA



To the Editor:

The June 1980 issue of Architecture Minnesota was simply great. Since I'm from Indianapolis, I wasn't confused-I saw all those buildings 10 years ago at home! Only kidding!! But why only two honor awards? Keep those entries coming.

David Olan Meeker, Jr., FAIA Executive Vice President, AIA

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n addition to its concern for restoring rchitectural woodwork, Shaw is vially concerned with providing archiects and builders with energy saving nethods. All-weather wood foundaions, first introduced in Minnesota by haw, are pre-built in Shaw's comonent plant. Studies have shown subtantial fuel savings for heating a wood oundation home. This type of founation goes up faster and can be erected n almost all types of weather. Shaw lso manufactures roof and floor truss ystems with the aid of computerized ngineering. Shaw specializes in inovations in areas such as providing pecially designed upside down roof russes and flat floor truss systems to mplement the creative designs of arhitects.

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Interior, Colonial Church of Edina

in a restored mahogany 35 foot Chris Craft cruiser. Shaw Lumber Company carries a complete line of framing lumber, hardwood lumber and redwood. They are also stocking distributors of Andersen Windows. For further information contact: Shaw Lumber Company, 217 Como Ave. St. Paul, MN 55103, 612/488-2525.

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202 South 3rd Avenue, Cold Spring, MN 56320

A design and build landscape contracting firm has created a new line of exterior hand crafted redwood furnishings. Their new line includes tables, game tables, picnic tables for four and eight people, trash receptacles with removable liners, and cigarette butt receptacles for entries. The furnishings are 100% redwood and can be adapted for residential, commercial and recreational use with different mounting systems. Landshapes Inc. can also custom design and/or fabricate any type of wood furnishings to any specifications. The furnishings come with a two year warranty. For more information and a catalog call or write: Landshapes, Inc. 5808 Newton Ave. So. Minneapolis, MN 55419 (612)888-3771



Exterior hand-crafted redwood furnishing from Landshapes



On the window market this month, Empirehouse, Inc. announced the new "Arctic Husky" Double Hung Window being manufactured by Captol Products Corporation. This heavyduty four panel window consists of two interchangable sets of sash in a common thermally broken frame. The exterior sash is glazed with 1/2 inch insulated glass, while the interior is glazed with double strength glass, creating an overall triple-glazed window unit. Presently being used in projects in Anchorage, Alaska, the window is appropriately named the "Arctic Husky." Empirehouse, Inc., who recently celebrated its 30th Anniversary, nvites you to contact its offices for more information on this high performance and competetively priced window system. Call 612/338-5877 or visit the offices at 1055 North 5th Street, Minneapolis.

Correction:

n the April, 1980 issue of *Architecture Minnesota*, the telephone number in he Earth Sheltered Housing of Iowa, nc. advertisement (page 75) was given ncorrectly. The correct number is 515/ 223-6023. Please contact Robert Bates, President, for information concerning heir services.

n the June 1980 issue of Architecture Minnesota, there were several errors regarding the proper attribution of Metropolitan Medical Center, which was a joint venture of Close Associates and Horty Elving and Associates.

The cafeteria pictured on page 54 is a facility which is shared by Metropoltan Medical Center and Hennepin County Medical Center. It was designed by Close Associates.

The transport system pictured on the pottom of page 62 was developed by Close Associates. The Co/Struc itself s a Herman Miller system.

The Laminar Flow Operating Room pictured on page 64 should have been attributed to Horty Elving & Associates and Close Associates.

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