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Detail from P.C. Sommers' black and white etching, "Stage Set."



Works In Progress

Design is a Spin-off in the Development of Understanding

The built environment as a physical extension of the learning process.

ISU Music Building

Energy conscious design consolidates scattered music function.

Continuing Education Jim Lynch discusses program, its purpose

Jim Lynch discusses the program, its purpose and qualifying criteria.



ISU Student Work A broad range of in

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News



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MORKS IN PROGRESS



nergy Efficient Office Complex

A forty acre site on the west edge of South Sioux City, lebraska, will soon be the new home of Joe Morten & Son and Great West Casulty Co. Slated for spring 1980 construction, the building, designed by Foss Engelstad Heil, Inc., Architects and Engineers, Sioux City, Iowa, inegrates many architectural and engineering concepts o produce a building exemplary in energy economy.

The building, planned for future expansion, will have hree floors enclosing approximately 68,000 square feet. Below grade walls will be reinforced concrete while bove grade construction will be a structural steel frame with a precast concrete exterior. The primary exposure vill be to the south and will overlook a reflecting pond reated as a bi-product of excavating a large area to get earth for sheltering the building from the elements on the north and east sides. The south side of the building will have bands of fixed windows glazed with 1" insulating lass. Glass areas on the south will be shaded to liminate unwanted solar gain. The shading will be accomplished by using arrays of solar collectors and their upporting framework in the form of broad overhangs wer each band of windows. Other sides of the building vill have minimal amounts of glass.

Integrated solar energy (passive and active) will be the rimary external source for heating and ventilating the roject.

ligh Tech Bank

Capital City Bank has scheduled the addition of a fiveane drive-up, branch bank, and west side office building



facility in Clive, Iowa. Designed by Charles Herbert and Associates, the 13,100 square foot structure features exposed exterior steel framing, diagonal bracing, bar joists, and mechanical systems. The top story of the three level project is sheathed in clear aluminum panels while the lower stories are composed by a curtain wall grid system using 4'' ceramic clad metal insulating panels and clear insulating glass. The primary stairway is delineated by a glass block enclosure that serves as an ordering, highly visible element from the entry level plaza. The design exhibits an industrial or "high tech" style, incorporating prefabricated building components for interior as well as exterior construction.

Quadrangle Remodeling at ISU

Frevert Ramsey Drey Kobes Architects and Engineers have embarked on phase one of a major remodeling for the Iowa State University Quadrangle in Ames. Remodeling will adapt laboratories and animal quarters of the seven buildings of the old Veterinary Quadrangle (shown above) to like new classrooms and offices for the College



of Education and the Department of Psychology. Deteriorating masonry wall surfaces are being restored, and existing doublehung wood windows are being replaced by thermally efficient insulating metal windows. The remodeled complex will comply with all thermal and lighting requirements of the Iowa Energy Code. Completion of the project, comprising nearly 100,000 square feet of space, is anticipated for November of 1981 at a cost of \$4 million.



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Winterset Elementary School

After four bond issues, contract drawings are nov underway on the new additions to the South Ward Elementary School in Winterset. Providing facilities fo grades K through 5, the project, designed by Bussard/Dikis Associates Ltd., responds to a rathe small, segmented 8.2 acre site and very specific pro gram requirements. The new, 49,100 s.f. two-story classroom addition will replace an outdated 1890's building, formerly the old Winterset High School. Twenty eight classrooms surround a two-story, skylit media center which will function as the center of the school' educational activities. The new, 9,000 s.f. multi purpose/gym, kitchen and locker room addition will ser vice the school's lunch program as well as day and nigh time recreational activities. In addition, the existing 1951 addition to the old 1890's school building will be remodeled to provide special classroom and ad ministrative spaces. The 3.2 million dollar project will en compass 76,400 s.f. and is scheduled for completion in early 1982.



Ecumenical Retreat In Western Iowa

The Wakonda Prayer House will be building an ecumenical retreat facility nestled in the hillsides above the Nishnabotna River west of Griswold, Iowa. The ap proximately 26,000 sq. ft. building complex designed by *The Design Partnership* will be an earth-sheltered structure with both passive and active solar techniques employed for space heating, domestic hot water and the heating of a 30'x90' swimming pool. Included in the program is a chapel to seat 200 persons, conference and recreation areas with kitchen, and living accommodations for 90 people. A bookstore, administrative area and complete facilities for the physically handicapper round out the scheme of this \$2 million project.

The **lowa Architect** encourages submission of projects in the planning, design, or construction stage Photographs, sketches or model reproductions will be published to accompany written data.

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A Design is a Spinoff in The Development of Understanding

by Robert S. Harris, Dean of the School of Architecture and Allied Arts at the University of Oregon in Eugene.

The process of design is essentially the process of gaining understanding. And since the effort to gain understanding is a continuous and on-going effort, a design project represents a finite span of time within the larger period of a person's life. The objective of designing (of study) is one of gaining more knowledge and understanding than is available at the outset of the study. A design itself (a decision set) is a manifestation that expresses the understanding that exists at the time the design is externalized or proposed. Thus, we may say that the development of both general and specific understanding is part of the life-activity of a person, and that individuals may engage particular problems from time to time that focus their energies and assist them to gain insights, which may then be shared in many ways. The development of understanding is continuous, while projects are discrete (in time, at least). Figure 1. A designer engages any project already having some information and insight.

Indeed, for a project to be articulated there would usually have to be some mounting pressure, based on a lack of fit either related to need or to opportunity that would bring a situation to someone's attention. The lack of fit will be sensed strongly enough to be partially diagnosed, thus identified, in order that energy may be brought to bear upon its resolution. Those who attend to a design project will normally have considered many of the issues it raises as part of other work and as part of earlier education and training. A new project is an opportunity to extend and enlarge understandings. The understandings may be quite transformed in the process.

Several aspects of design should be clarified. First, no design is representative of a "complete" understanding of the issues included. Second, any design does not represent just those issues the designer did include. Third, an essential espect of the design process is that it is by itself endless, and thus it requires a deliberate decision by the designer to externalize, to spin-off a communication (design) of understandings at appropriate times. Appropriateness will involve questions of the need for feed-back, the pressures of those being served, and the general urgencies of action and commitment. The so-called "perfectionist" may, as an extreme case, be merely trapped by the ideal of "completeness." At the other extreme, commitment and action may occur too early because of a lack of curiosity or an exaggerated confidence or an inability to test conclusions. Judgment is required to assess both understanding and the time for action. The forming of that judgment requires practice and training.

Information exists in diverse places. It is available from others as well as from the designer. It is more than can be effectively collected and handled, but must be collected creatively in order to be used at all. One must not struggle towards the goal of information completeness without adequate respect for the inevitable selectivity that will be exercised and the equal inevitability of the existence of data that will never be acquired or used. Information that might have had a bearing on the development of understanding will still be found after designs have been spun-off. Indeed, as a designer's understanding increases, the data that will be deemed



Figure 1. In this oversimplified diagram, a person's understanding is seen to be ever-increasing. A design may be externalized at any time and will manifest the understandings available at that time.

P represents the life-span of a project with intermediate or "preliminary" design spin-offs.



relevant will also increase or change. Thus, how information is valued changes during the process (during an entire lifetime). Information resists a steady state.

We can put information gathering this way: the mind is a filter biased by values it holds (*Figure 2*). Information that bombards the filter is passed through with great or little change, or it may be rejected altogether. The filter may organize the data in certain ways. But the filter is a changing one as the mind's values change, which they are sure to do as a result of time and experience. Thus, the filter must continuously be allowed to reorganize data that it has earlier put into potentially obsolete organization. Thinking may be the vehicle of re-ordering and must be allowed to operate.

We may begin to value certain kinds of information differently. Some data is relatively stable and can be called upon regularly without the necessity of re-ordering. Information about physical processes, once understood, tends to be reliably applicable through time. We look for such information as constants against which all other information may be measured. We may look for whatever is fixed and for whatever is changing as a basic set of categories for organizing all information. We may further separate that which is changing cyclically from that which is changing in yet unknown patterns. We may separate that which is expanding or growing from that which is changing form alone. But whatever our approach, we will have intuitively (on the basis of past experience) sought and organized information. By "in-



Figure 2. This diagram is useful but inadequate. The filter should be shown as continuously changing (by small or radical degrees), and information should be shown as constantly in-coming on top of other already organized information. The diagram does show the equation: information + values = understanding, which accounts for the different understandings two people may have in relation to the ''same'' information, and also accounts for the different meanings information may have at different times for a person who has changed values and/or who has acquired other information during the interim period.

uitively," I mean according to *an expectation* that cerain data *might* be useful and significant. Data gathering s essentially an intuitive process. It must be tested by inalytical and synthetic efforts to show its relevance.

Intuition is basic to human operation and is not anithetical to analysis or imagination which are two other basic human faculties. This paper, any conversation, all communication is intuitively projected with the expectaion of "accurate" reception. For example, the absence or presence of recognition in the eyes of those spoken to vill show the intuition to have been accurate or deficient, ind other more informed intuitions may have to be proected.

Intuition can be tested only when externalized. Once ou hold a thought (design idea) in your hand you can heck to see what it is and can be. But you must first get out before you. When one has criteria with which to vork, one can analytically test an intuitive projection to ssess its validity. But there are other tests as well. Paricularly if one is projecting what a place may be physically, then one may (indeed, must) form a mental mage of the place accurate enough to allow one's own presence imaginatively. That is, designers may use imigination to project themselves into the places they are hinking about (which may not yet exist or may be far way). They may thus test for both technical and experiential objectives. They may rehearse mentally not only how they would use that place but also how others vould. Perhaps, if designers have been observant, they vill be able to imagine how their design affects the acivities and responses of children, older persons, rowds, couples, hippies and squares, at night or in the lay, during the winter or fall.

But imagination, like intuition, thrives on experience, and designers will have had to have been observant and thoughtful in order to be imaginative. Also, of course, they will require a rather detailed understanding of the places they are imagining and testing. Drawings, models, and any other media are used for this purpose of creating as complete a mental image as possible. If the image is distorted, the tests will be either useless or misleading.

"Hard" criteria about mechanical operations, human functions, or perhaps broadly based cultural aspirations or habits may provide the platform for *analysis*. Observation provides the platform for *imagination*. Experience and a willingness to reveal incomplete and unrefined possibilities are the platform for *intuition*.

Perhaps it will have been realized by now that these activities of gaining understanding also create situations wherein new information is discovered. Imaginative testing allows the discovery of needs not earlier identified and of possibilities not earlier suspected. The pattern of feedback from testing of successive intuitions provides information about what is critical in the problem at hand. The full use of these faculties creates new information, changes values, and expands understanding.

A design, then, is an expression of understanding. The implementation of the design (construction) allows further tests wherein the accuracy of imagination and the validity of "hard" criteria may be verified.

Thus, "getting something built" is necessary to check on the mechanisms of the designer, and to adjust and tune the filters for their next encounter.



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Music Building Iowa State University

The Music Building, presently under construction at Iowa State University, is located on the site of the old Music Hall. The old Music Hall was originally built as a professor's residence in 1869 and later converted for use by the Music Department in 1929, who occupied the building until the fall of 1978. The Music Department is presently scattered throughout the campus and has been or is presently utilizing portions of Morrill Hall, Pope Cottage, Exhibit Hall and the Computer Science and Engineering Research Building. At the present time, concerts by the department are within the Memorial Union, LeBarron Auditorium, Fisher Theater or C. Y. Stephens Auditorium. The new ISU Music Builling provides space to bring the entire department together under one roof within a facility designed specifically for music functions. The building is scheduled to be occupied by the ISU Music Department in the fall of 1980.

In consideration of the densely wooded, natural hillside on the south portion of the site, a concept of a 3-story element facing south attached to a linear 1-story element facing north was developed. The building is planned to maximize the view over Lake LaVerne while utilizing the shading of the trees during the summer months and the warmth of the direct sun during the winter months.

The main entrance on the north provides direct access to the Lecture-Recital Hall and the large group rehearsal halls and adjoins the mid-level of the multi-story element. Student entrances from both the west and the east are provided to minimize the traffic flow between floor levels.

The multi-story element spaces have been grouped by function to promote maximum construction and operational efficiency. The ground floor level contains music student practice rooms and classrooms. The first floor level includes the administrative offices and the spaces directly related to the large group rehearsal and recital halls. The second floor level houses the faculty/studio offices, organ practice studios, electronic music classroom and the recording room. The building envelope has been organized into a single rectangular massing with lower level recesses as required by space function and concept expression.



Acoustics are a prime design factor and were given the highest priority. A major consideration is sound isolation between spaces. When outside noises become mixed with the musical sounds between a space, the results are extremely confusing to the performer, teacher and listener. A transmission loss of 60 db was the design goal. This is accomplished by building a room within a room. Separate raised floors and gypsum walls and ceilings are completely isolated from the structure and enclosure walls.

Another major consideration is sound quality within the rooms. The rooms are designed to allow the instruments or voices to sound "natural." Reverberation time control timing panels are provided to allow the spaces to be adjusted for the desired acoustical results and to eliminate undesirable qualities.

Building operation costs have been increasing at a dramatic annual rate and are a prime design consideration. An encompassing set of energy conservation techniques have been incorporated into the design. The building massing itself is designed to minimize the wall exposure to the east and west to control low angle sun. At the same time, exterior form will maximize the benefit of shading in the summer and solar warmth in the winter on the south





View from the south across Lake LaVerne





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Each large group space is provided with an individual mechanical system which reacts to periods of non-use or minimum use by coordinating the ventilation requirements in accordance with the time/cycle occupancy.

The mechanical system selected is a variable volume conditioned air system using University chilled water and steam for energy. The lighting system is primarily fluorescent with levels commensurate with the space usage. Incandescent task lighting is used to supplement the levels where required. The exterior window/buildling enclosure ratio is minimized with all glazing being fixed insulating glass. Vestibules or controls are provided at all building entrances to minimize infiltration. A temperature control system is provided to automatically adjust for varying outdoor conditions, space usage and time/cycle room or area functions.

Finally, the exterior walls and roof surfaces of the building are thoroughly insulated and of a light color tone to control the heat transfer coefficients.







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DATA

- Project: Music Building, Iowa State University, Ames, Iowa.
- Architects: The Durrant Group, Inc., Cedar Rapids; Dale Nederhoff, Project Director.
- Program: University music building to consolidate faculty offices, classrooms, rehearsal studios and recital hall.
- Site: The site is bound by Carver Hall on the north, Alumni Hall on the west, Union Drive on the south, and Morrill Road on the east.
- Structural System: Concrete foundation, poured-in-place concrete frame with hollow core concrete floor panels, concrete frame and concrete panel roof.
- Mechanical System: Variable air volume system for multi-level portion, air handling units for rehearsal and recital halls; sound mufflers and ductwork insulation for sound control.

- Acoustical controls: Retractable wall drapery for for reverberation control, adjustable sound panels over stage at recital hall; wall mounted acoustical panels at studios; raised floors and internal gypsum walls and ceilings completely isolated from the structure at rehearsal rooms.
- Major materials: Limestone veneer on concrete block backup exterior walls; painted concrete block and gypsum board interior partitions; resilient tile and terrazzo floors.
- Consultants: Durrant Engineers, Inc., structural; Frank Pulley Associates, mechanical and electrical; R. Lawrence Kirkegaard and Associates, Inc., acoustical.

General Contractor: Vulcan Construction Co.

Client: Iowa State University

Cost: \$4,100,000; \$74.00 per square foot.

Photography: Dale A. Nederhoff



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Continuing Education For Architects In Iowa

by James I. Lynch AIA

Under parts of the Constitution of the United States, Congress and the subdivisions of government are given the opportunity to pass laws providing for the public's health, safety and welfare. It is under this broad umbrella that legislation was first passed in Iowa in the late 1920's providing for the registration of the profession of architecture. More recently, an addition has been made to the law, along with those governing some 27 other boards for professions and vocations, whereby continuing education is a requirement for re-registration at the time of renewal in each year.

The Iowa State Board of Architecural Examiners was given the responsibility of establishing a set of rules passed upon by the Legislative Rules Review Committee that would govern the kinds of things that could be accepted as continuing education for the re-registration of each architect. There were no model codes since lowa was the first to impose continuing education on the profession of architecture. Also, nearly two-thirds of the architects registered in the State of Iowa live beyond the state's borders, so we had to have some kind of a system that would be acceptable and attainable for people who lived a thousand miles from our state as well as for those who reside within the state.

For that reason, we elected to use a *contact hour* as a method of measurement of the amount of continuing education each architect might receive each year. A contact hour is something that is easily understood and easily remembered.

A continuing education unit granted by some universities and short courses is merely 10 contact hours. After some deliberation we elected to use 20 contact hours per year as a minimum amount of continuing education we felt one should have in order to continue in the practice of architecture. We also recognized that all kinds of things become continuing education, not merely courses provided by universities or in a formal educational setting. For that reason many options are available to the individual actively engaged in practice, some of which cost no money and little of his time, yet all of them are valid and all of them do provide a protection for the public's health, safety and welfare.

Because of the large number of out-of state registrants licensed in lowa, we placed the recordkeeping problem on each practioner, and it is up to that individual to send an affidavit attesting to the number and types of things that he or she has performed during the preceding fiscal year. Those items totalled must equal 20 hours and must also be from more than one source. This, I believe, is clearly spelled out in the Board's rules. Naturally, we have already experienced some exceptions, and I anticipate changes in the program.

Because we believe that each practitioner is best able to judge the kinds of things he needs for his particular practice, we elected our contact hour system on a selfdetermination program. The Board of Architectural Examiners does not prejudge programs; it does not approve them in advance. Each individual is asked to judge his own programs and his own needs to further his capacity as an architect in practice in Iowa.

Remember also that our Board must look at the idea



of the public's health, safety and welfare when we try to judge affidavits. Select the varieties of programs that will be of a technical value to you as an architect, something that does in fact fall under the general guidelines of health, safety and welfare. For instance, those programs that may be very meaningful and helpful in making you a better businessman are not necessarily protecting the public.

Conversely, the topics that address structural innovations, new heating systems, programs dealing with roofing problems, masonry, precast concrete, the wide gamut of materials used on a regular basis or the methods in which they are designed and combined, all fit this category. Those that are strictly selfish, that is those that help the architect internally in his office, do not necessarily fit such a category. For that reason each architect should bear in mind the words "health, safety and welfare" when judging a program that seems appropriate from a continuing education standpoint.

Remember, 20 hours are not a burden for the active architect, and the kinds of things asked to be done and where credit is allowed under our rules should be helpful to every architect in his or her practice.

Jim Lynch heads the architectural firm of James Lynch & Associates in Des Moines and is President of the Iowa Board of Architectural Examiners.



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STUDENT PROJECTS

Department of Architecture Iowa State University

Projects selected from work completed during the 1979-1980 academic year with the assistance of Professor Glen Goldman and the ISU design faculty.



FIRST LEVEL PLAN





SECTIONS



CUTAWAY AXONOMETRIC

Student: Kermit Schmidt Project: Ames Campus Town Development Studio Level: First Year Graduate Length of Project: Urban Design 4 weeks Building Design 6 weeks

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WEST ELEVATION



SECTION A-A



SECTION AND ELEVATIONS

SOUTH ELEVATION

Student: Randall James Lore Project: Boone Public Library Studio Level: 2nd Quarter Design Length of Project: 5 Weeks



MODEL




tudent: Kevin Havens roject: Monument to Frank Furness tudio Level: 4th Quarter ength of Project: 2 Weeks



Jrank Jurness Commemorative Monument

Students: Paul Thompson Rick Wessling Jim Tometich Judy Hatton Studio Level: 4th Quarter Design Project: Competition: "Consultation Internationale Pour L'Amenagment Du Quarter Des Halles, Paris"

Length of Project: 10 weeks







Allocation des Espaces

Consultation Internationale Pour L'aménagement Du Quartier Des Halles Paris



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Rapports des Volumes et des Vides



Rapports des axes



Sortie du Forum-Nord

Tactiques Urbanistiques

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Espaces Superposés



trée aux Beaux Arts



Place des Halles

Students: Jeff Keach Mary Hansen Tom Lam

Project: Competition: "Consultation Internationale Pour L'Amenagment Du Quarter Des Halles, Paris"

Studio Level: 4th Quarter Design Length of Project: 10 Weeks



Y









EDRA 12 To Be Held In Ames

The twelfth annual international conference of the Environmental Design Research Association will be held at Iowa State University April 2-6, 1981.

EDRA conferences are forums for individuals interested in understanding the relationships between people and their environment and in using this understanding to improve the quality of both natural and designed environments. The Environmental Design Research Association is composed of architects, psychologists, planners, sociologists, anthropologists, geographers and others in the environmental design and behavioral fields. EDRA 12 is sponsored by the Department of Architecture and the College of Design. Co-chairpersons are Carole Tiernan, Arvid Osterberg and Robert A. Findlay, faculty in the Department of Architecture. The chairpersons have been members of EDRA for some time and have been active in developing the social and psychological aspects of the architecture curriculum. Arvid has worked in gerontology and accessibility, Carole in environmental psychology and architectural programming and Bob in the social impact and the social regulation of architecture. They have agreed to collaborate in planning the conference and in editing the conference proceedings.

Submissions are invited for conference participation with paper presentations, symposia, workshops and poster sessions. Participation information may be obtained by writing to EDRA 12, College of Design, Iowa State University, Ames, Iowa 50011 or by calling 515-294-7427.

Robert A. Findlay Associate Professor Department of Architecture

Iowa Chapter Milestone — A New Executive Director

The Search Committee of the Iowa Chapter of the American Institute of Architects has announced the appointment of Claudia Cackler to the position of Executive Director, effective May 15, 1980. Ms. Cackler will replace Julian Serrill, who is retiring after more than 14 years of service.

Ms. Cackler will be leaving a position as Executive Director of the Sherman Hill Association, Inc., a nonprofit organization responsible for the revitalization of the Historic District just west of downtown Des Moines. She holds a Bachelor of Arts from the University of Iowa (1974) with emphasis in History, Art and Architectura History. She is currently pursuing a Master of Art degree from Drake University in American History an Historic Preservation.

In her previous position, she has had experience i program and budget administration, employee manage ment, Board agendas and meetings, coordination wit legislative efforts and with governmental units, organiza tion of public information relations and marketing.

The Search Committee received about 35 initial left ters of interest after distribution of a job description and announcement of the job opening. The Committee Wayne Snyder, Ken Bussard and Norm Wirkler started their work in July of 1979. They were joined by Ton Clause, Ken Steffen, Scott Olson and Bill Dikis during the selection process, and the final interviews and selection were carried out by Snyder, Bussard, Clause, Steffer and Dikis.

ISU Group To Energy Congress

Two members of the Iowa State University facult and two graduate students will participate in the Interna tional Congress of Building Energy Managemen (ICBEM) to be held in Portugal, May 12-16. In addition seven invited papers from ISU will be presented at the congress which will focus on conventional and solar ap proaches to building energy management.

James E. Woods, professor of architecture and me chanical engineering at Iowa State, is a member of the organizing committee of the congress. Iowa State University is one of the sponsors, along with the Schoo of Engineering of the University of Porto, Portugal, and the Federal School of Polytechnique of Lausanne Switzerland.

Graduate students Eduardo A. Maldonado and Gary L Reynolds, both of mechanical engineering, and Eino O Kainlauri, professor of architecture, will join Woods a the ICBEM.

Woods said that academicians and scientists from 50 countries will send representatives to the congress and that 100 papers will be published in the proceedings.

"One third of the world's annual energy consumption occurs in buildings," Woods said, "and most of this energy is derived from natural resources which are being depleted at such rates that concern exists regarding their availability to the year 2000. Even if the resources are not physically depleted, their availability is still questionable due to the social and political pressures that are being applied by cartels, ecologists, religious groups, and others.

"Energy is consumed within residential and commercial buildings primarily to provide for the health and comfort of the occupants. Therefore, if buildings can be economically managed to take advantage of their passive characteristics and to improve efficiencies of active systems, depletion of natural resources can be educed without jeopardizing the health or well-being of he occupants."

The congress "will approach this complex problem rom the viewpoint of academicians and scientists," he said. "We will pull out all the plugs and discuss topics strictly from the scientific and academic viewpoint, leavng the politics very much in the background."

Area School Cited For Design

A school with energy saving features in San Jose, California and a high school-community center in Charlestown, Massachusetts received the two top awards in the 1980 Exhibition of School Architecture durng the 1980 AASA convention in Anaheim, California.

This annual school building competition was sponsored by the American Association of School Administrators (AASA) and the American Institute of Architects (AIA).

The Timpany Center in San Jose, California won the Shirley Cooper Award for outstanding school architecure. The Walter Taylor Award — named for the AIA coounder — will go to the Charlestown High School and Community School in Charlestown, Massachusetts.

An eight-member jury equally divided between architects and school administrators praised the Timpany Center as "an excellent solution for a specialized program, an architectural gem." The school was cited for ts skillful integration of energy conservation devices into an attractive design. "Of note are the active and passive energy saving features incorporated: solar panels for pool heating; natural and mechanical ventilation; north acing or trellised windows; skylights and clerestory daylighting."

The Exhibition Jury called the Charleston High School and Community School "An outstanding solution responding to the restriction of urban sites and the need for community as well as educational facilities. The sculptured forms and colors of the building masses designed to maintain neighborhood character and scale, also provide interesting interior lighting and spatial effect."

Crossroads Elementary School, West Des Moines, owa, designed by Bussard/Dikis Associates Ltd., Architects and Planners, was given a special citation by the AASA.

This 600 student facility was the result of basic program requirements for a growing suburban community with a recently adopted emphasis on community use. The site is nine acres of rolling grassland adjoined by a city park of equal area on the north and west. The two parcels were cooperatively planned to complement each other for community use, with the school providing toilets, gymnasium, community room, parking and playgrounds; the city providing a playfield, tennis courts and natural landscaped green spaces.

The functional solution focuses on the media center, utilizing that space as a small town would use a village green. Three smaller connecting "hubs", serving as



multi-use study spaces and coat-storge, interlock with double groups of three classrooms and a separate vestibule/toilet space. The dichotomy of the open classroom solution versus the closed is successfully handled with the integration of demountable walls and doorless class areas.

Major exterior design objectives were to respect the residential scale of the surrounding area and relate to the human scale of the young students, thus the low roof



lines, sloping roofs, playful forms and low brick sitting walls.

The structural system consists of poured-concrete pilings, grade beams, insulated masonry cavity bearing walls, steel joists, exposed wood trusses and steel decking with light weight concrete topping. The building envelope is primarily brick with glass making up 7.8% of the exterior wall area.

Dr. Dale Grabinski, Superintendent of West Des Moines Community School District, and H. Kennard Bussard, AIA of Bussard/Dikis Associates Ltd., received the award jointly at the annual American Association of School Administrators Convention in Anaheim, California, on February 16, 1980.

The school was selected as an excellent example of an architecural solution to a program requiring the incorporation of community-usage facilities within an academic program. The jury commended the District and Architects in their efforts to develop a handsome



building which complemented a well conceived program that involved the participation of the administration, staff, faculty, architects and the community.



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