practicing architect

society news

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PRESIDENT'S MESSAGE

G. Robert Johnson, FARA

For many years it has been amazing to me to observe the dedication and time and effort that people give to benefit hospitals, botanic gardens, service clubs, children's homes, and many other institutions and organizations, all as volunteers. In a real sense SARA is a volunteer organization. Officers, Regents and many members give freely of their time, knowledge and abilities in the interests of the Society and thus for other architects and the public.

Some of this was evident at the Executive Board meeting in Chicago on May 2. Reports by William Baldwin, Wayne Bryan, and Ove Uggerby on the 1981 25th Anniversary Convention "(and on the advertising campaign for the convention book)" gave evidence of many hours of hard work. Harry Botesch had submitted a discussion on the SARA Student Fund which he started and which will be discussed soon in one of our publications. Arne Foss, fast becoming a computer expert, discussed how computers will benefit architects and reported he will be working to develop services for our members in computer applications for architectural practice.

With the help of public relations consultant Stanley Banash, Fred Bernheim is developing a program of SARA exhibits, discussions and lectures at architectural schools. Wayne Bryan is active in organizing attractive insurance programs for our members. Melvin Markson, a strong vocal adversary of the Department of Energy BEPS program, brings information about this important subject to the Board and, thru our publications, to the members. Markson also, starting singlehandedly, has taken up the cudgel against Illinois law which permits others than registered architects to perform architectural services.

Herbert Berger has done most excellent planning for this year's student design program, the problem to be the exciting one of a commercial structure to be built along an extension of the Paseo del Rio in San Antonio. Fred Prather and Dick Bonsignore continue yoeman's work on membership development, and the growth of the Society attests to their unselfish dedication.

Space does not permit mention of all of the Board's "volunteers". And space does not permit mention of all those in SARA who work for SARA at the State Council and Chapter levels, — meetings, award programs, legislative actions. These are just examples of volunteer work by many dedicated members.

You have received information and will receive more about the 1981 25th Anniversary Convention in San Antonio. Beyond this year, under the leadership of Donald McKerchar, David Kaplan and Alex Gravesen, planning is beginning for the 1982 Convention in Innsbrook, Florida. On May 2, the Board approved future convention cities: New Orleans in 1983, New York City in 1984, and San Diego in 1985.

The SARA was founded by Wilfred Gregson on the basis of the Golden Rule. "Architect helping Architect" is a Golden Rule concept. When we follow this credo, we grow and are significant because of the volunteers throughout our membership. Someone has said that "the voluntary way is the American way". Let us all take this to heart and support SARA's activities. — at councils, chapters, big cities, small towns, conventions, and all elsewhere. The greater the contributions of each of us in time and ability, the greater the benefits to all.

THE FOUNDER'S CORNER

Founder Wilfred Gregson has restricted his activity to the extent of establishing a personal office in his home, from which he will conduct his architectural and society activities. Please correct your records to indicate the following change in mailing address and telephone number:

Wilfred Gregson, FARA
1065 Farmington Lane
Atlanta, GA 30319
Telephone: (404) 233-5883
(404) 233-1048
NATIONAL BOARD REPORT

The National Executive Board meeting was held in Chicago on May 2nd. A great deal of activity was reported out thanks to this year’s very active committee chairmen.

Treasurer Arnold Schaffner presented the 1980 financial statement, which indicated an improved fiscal condition for the Society. This statement is published elsewhere in this issue.

Fred Prather reported the receipt of 75 new memberships. The next membership mailing will be conducted in late May, following up on those architects contacted in March of this year.

The student contact program has generated some student interest which Fred Berne has been following up on with an effort to establish lectures on the practice of Architecture. There does, however, appear to be some resistance on the part of a number of architectural deans to cooperate in an outside contact program with their students.

The traveling exhibit of award winning projects was installed at Arizona State under the auspices of Gayle Daniel and was well received.

Public Relations Director Stan Banash reviewed a mailing which outlines the Business of Architecture lecture and which is, with Board approval, being sent to all colleges offering architectural programs.

Herbert Berger, Chairman of the Student Awards Committee, presented the program for the 1981 student competition. A very interesting competition program has been developed. This program is reviewed in greater detail in this issue.

The work of the Long Range Planning Committee was reported by Richard Shields. Their initial subject considered was the anticipated financial requirements of the Society. The committee recommended an increase in membership dues to $75.00 per year. This would break down to a 33% increase for the State Councils, by raising their share to $20.00 per member, and result in a 22% increase in national funding by raising its retainer to $55.00.

During the discussion, it was pointed out that there had been a suggestion at the Annual Assembly to raise Emeritus fees to $15.00 and to increase the charge for Emeritus and Fellowship certificates to $25.00. This total package of increases was approved by the Board and forwarded to the By-Laws Committee for action.

Wayne Bryan reported on the status of Convention advertising. While a number of verbal commitments have been forwarded from the membership, the number of actual contract commitments remains very low. This is an extreme cause for concern as, with the elimination of exhibitors, the Society is wholly dependent upon the advertising program in the Convention issue of Practicing Architect to avoid a serious financial disaster in November. Wayne was directed to promulgate another letter to the membership requesting their assistance in this program.

Jerry Salzman and William Baldwin recommended that an artistic awards program be introduced this year which would honor the non-practice endeavors of the membership. This was approved and an announcement of this program will be mailed to the membership early in June.

The report of the committee for future Convention sites was reviewed. This included five pre-evaluated locations for the years 1983, 1984, and 1985. After considerable discussion, the Board approved the following Convention sites:

1983 — New Orleans
1984 — New York
1985 — San Diego

Wayne Bryan reported that the costs of the health insurance program are running higher than anticipated. Therefore, the committee has reopened the search for alternate suppliers for this program.

Archivist Chester Stark reviewed the current status of retaining the National Archives. The President will request that Council Presidents review the Manual of Procedures and report on any procedures which they feel are impeding conformance with the intent of the program. At Chester’s suggestion, it was recommended that each Council be advised that they should have an Archivist among their officers.

Mel Markson reported on the initial efforts of the committee which was assigned to produce an in-depth position paper on the BEPS program. While the committee feels that it has isolated the major areas of concern, it needs additional input from the general membership to objectify the problems and to insulate that the final position reflects the will of the members.

1980 FINANCIAL STATEMENT

In accordance with the provisions of the By-Laws the following is the audited financial statement of the Society of American Registered Architects for the last year.

Statement of Income, Expenses, and Association Equity
For the year ended December 31, 1980

<table>
<thead>
<tr>
<th>Income</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Membership Dues</td>
<td>$ 41,359</td>
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<tr>
<td>Less Payments to State Councils</td>
<td>$ 7,253</td>
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<tr>
<td>Balance</td>
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<td>1980 Convention Income</td>
<td>$ 9,896</td>
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<td>Other Income</td>
<td>$ 3,060</td>
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<tr>
<td>Total Income</td>
<td>$ 47,062</td>
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</table>

<table>
<thead>
<tr>
<th>Expenses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$ 39,005</td>
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<tr>
<td>Net Income</td>
<td>$ 8,057</td>
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<tr>
<td>Association Equity — January 1</td>
<td>$ 11,469</td>
</tr>
<tr>
<td>Association Equity — December 31</td>
<td>$ 19,526</td>
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</tbody>
</table>
ARA JOINS NIBS

In March the Society joined the Consultative Council of the National Institute of Building Sciences "(NIBS)", President G. Robert Johnson stated that, "the time is long past due for the ARA to be participating in the work of this national building industry coordinating body."

The foundation of NIBS was authorized by Congress five years ago, for the purpose of establishing a non-government organization which could focus the attention of all sectors of the building community on national building concerns.

The Institute is organized to direct its efforts into three principal areas of concern: (1) the development of a more rational regulatory system for housing and building, (2) the encouragement of the use of the best available technology in the building process, and (3) the development of information systems which will assist all sectors of the building community.

Early this year, NIBS Chairman Joseph H. Newman publicly recommended to President Reagan that a one year moratorium be declared for all new federal actions which would further constrain the building industry. By the end of this one year period, he declared, a comprehensive set of short- and long-range recommendations, formulated with broad building community participation through existing Institute procedures, would be brought forth by the Institute for public debate. The ultimate goal is to propose to government and industry a new procedure for developing building regulations.

Currently NIBS, through its Consultative Council, is approaching this goal through work in three areas:

1. Conducting a comprehensive documentation of federal regulations that impact the building and land development process.
2. Identifying significant areas of duplication, overlap, and conflict of federal, state, and local building and development regulations, together with the development of a strategy to reduce and prevent these problems.
3. The development of a standardized method for analyzing the risks, costs, and benefits of existing and proposed regulations.

The current ARA representatives to NIBS are Richard Shields, FARA; Arne Foss, ARA; and Melvin Markson, FARA. Any member interested in contributing to the work of the Institute should contact Dick Shields for additional information.

NEW STUDENT AWARDS PROGRAM

The Student Awards Committee, working directly with Mr. Daryl Engel of the San Antonio Planning Department has developed a very interesting practical problem for the program of this year’s Student Design Awards Competition.

An actual site, owned by the City, located within the Alamo Plaza/Urban Development Action Grant Area Redevelopment Project portion of the central business district of San Antonio has been selected. The use program corresponds to the City’s private development constraints for this land parcel. As a result, the successful student solution could constitute the directed basis of the City’s development proposal.

The building itself is intended to be a mixed use commercial structure with the primary element to be an elegant restaurant/bar/club which will serve both the tourist and resident trade. In addition to the functional building considerations, the concept is required to relate to the Alamo Plaza/Riverwalk Linkage and to be compatible with other buildings within an established Historic District.

The scope and constraints of this project offer an exceptional opportunity for the exercise of imagination and sensitivity within a real practice environment. This competition has been endorsed by both the City of San Antonio and the San Antonio Chamber of Commerce. Herb Berger, FARA, as chairman, has done a remarkable job in developing this unique program. To date, twenty one schools of architecture have indicated participation in this year’s competition.

BEPS POLICY REPORT

In order to support a policy position with reference to the eventual determination of the date of the Federal BEPS program, the Executive Board has undertaken the development of an in-depth position paper on BEPS and the activities of the Department of Energy. This work will be coordinated by Melvin Markson, FARA and Richard Shields, FARA who have been pursuing this evaluation for several months.

It is the general consensus of the Board "(and apparently the design professions as a whole)" that the BEPS program is unworkable at the present time and in its current form due to its overwhelming complexity and the immense potential cost of implementation. It is also highly questionable whether it is in the national interest to have further regulatory constraints imposed on the building industry in the immediate future. Particularly when these regulations do not appear to provide a significant positive impact beyond the current voluntary action of the marketplace.

The committee would appreciate specific factual input relating to BEPS conformance or general comments of members' position on this subject. Please send to, Mel Markson, FARA, 400 West Higgins Road, Park Ridge, IL 60068. Members who would like to actively participate in the work of this committee would be most welcome.

Society News, including the announcement of a new artistic achievement awards program, is continued on page 15.
COMPUTERS IN ARCHITECTURE
Arne Foss, ARA

The Architectural profession is about to be changed by a revolution few people have seen coming. It will remake our Architectural business practices as drastically as the automobile, the telephone or atomic bomb have affected mankind. It is the COMPUTER revolution. These machines are not mere numerical calculators. They are general purpose computers capable of being set up for any conceivable human purpose. They can do your payroll, keep your books, write specifications, do cost estimates and energy reports, send and receive information, even produce drawings and more.

The business computer is a technological phenomenon made possible by the invention in 1971 of the microprocessor, which is the size of a flake of detergent and can do the work of the best computer produced a decade or so ago. In a couple of years it will be no more unusual to own a computer than to have a straight edge or triangle. It is interesting to realize that while most every thing around us keeps going up in price, computer prices have come down. Today a computer costs as little as 10 to 20% of the selling price ten or more years ago.

Small business computers are not part of a larger network. They operate independently of any other system and work on the information and ideas of their owners. A computer system consists of “hardware” and “software”. The hardware elements are the computer, the keyboard and the CRT display (a television-like screen), the printer and one or more disk drives. Software is the collection of programs that a user can use to perform specific tasks. Examples of software include cost estimating, energy audits, specifications, etc.

In setting up small business computers, we create the conditions that make it “choose” between one set of information and another; just as the thermostat “chooses” between hot and cold. It is the nature of the metal used to control the thermostat that it expands and contracts to make the “choice.” It is not some “intelligent thing.” The computer is not some “intelligent thing.” It is simply a set of circuits that can be set up to make either/or decisions based on the limits that the program sets for it. You can set your thermostat to go on at 69 degrees and off at 72 degrees. We have a chess program which tells the computer to move the king one square to the right when opposing queen is on the nearby square or square of some color. Computers perform only what they are instructed to perform by a program.

Any computer analyst or programmer will tell you there are three major reasons why computers are used.

First, speed. Computers are capable of processing data in billions of a second. Thousands of arithmetic operations can be performed in a single second by a computer.

Second, accuracy. When a computer has been programmed correctly and when the incoming data is error-free, the accuracy of the output is assured. When any information such as a specification or the cost of an 8” masonry wall has been input, proof-read, and stored one knows it will always come back the same way. As a result of speed and accuracy computer systems are capable of processing large amounts of information cheaper than if manual methods were used.

Third, Computers provide capabilities that would otherwise be impossible. They can operate on information at such high speeds that they produce results which would simply not be feasible otherwise. For example, computers can be used to update a cost estimate daily if necessary and print out an entirely new report. This can be accomplished in minutes. Similarly a computer can enable the Architect in the presence of an owner to change the parameters of a project and view the impact on the screen. The result is that a computer aided firm will be able to offer far more client services than would be possible without the computer.

Since computers are so new, the applications to date are only beginning to be tested and developed. But it is a certainty that many tasks that now take untold hours of effort will be accomplished through use of the computer in a fraction of the time.

We have looked at three major reasons why computers are used. Now let’s add a fourth.

As a TOOL. The computer will become the greatest tool an Architect has ever had. It will allow the Master Builder to change any parameters of a project and to see before him on the screen the impact of each and every change with relation to many considerations. We have developed software to make the computer a working tool through a series of programs called report generators.

Use of a computer will not necessitate hiring additional personnel or enlarging quarters to accommodate the equipment. For the most part things will remain much as they are. The typist will type, the draftsman will draw, but the Architect or project manager will now be able to do much more work with his or her creative mind and only one finger.

At the inception of a new Architectural Project, a project file is created in the computer and all relevant project information is entered either directly or by editing a similar project file. As the project develops additional information will be input by the project manager, by way of the typist, so that the project file is kept current. The Architect will
have the ability to edit or update any and all information based on his or her judgement.

Now let us suppose that one is in the design stage of a project and turns to the computer for a preliminary cost analysis of Scheme "A". By selecting (single key strokes) the components that comprise this scheme, from a master library, it will be possible to print out a cost estimate report in detail and letter perfect. The library is a composite file made up of all previous jobs. Yes, you can move desired information from a job completed two years previous. This information need not be retyped or proofread. There is always more than a single design that one would like to consider and here the computer shines. Enter the program, change the parameters, materials, area, height, etc., and on the screen watch the impact each of these have in relation to cost, energy efficiency, etc. Any of these can be documented for reference or future use.

With sufficient information now available it will be possible to produce a Project Outline Specification, a Cost Estimate or a Building Energy Consumption Report with an Energy Use Audit or Energy Fuel Analysis Report and much more. Again all of this will be possible with a few key strokes by the project manager.

By following standard procedures of file maintenance as the project progresses the Architect will have, at his finger tips, reports which were not available previously because of the time and expense involved. Equally important will be the ability to immediately examine the impact of a revision in acceptance, material, or an owner's request for change.

Assuming that the project manager has kept the computer job file up to date during the preparation of the working drawings, he or she is now ready for the computer to type out the specification. Again with a few key strokes the computer will type out a specification for this unique project 100% complete for those sections for which a master file exists. Where there is information lacking the computer will ask for it. This information can be entered into the computer to bring the document up to date and the computer will insert each item where it belongs. If a BOCA energy compliance report is required by the city in which your project is to be built then the software system will provide it. This also will be accomplished with only a few key strokes.

Computers are information processing tools which have a wide variety of uses. They can also produce drawings or communicate with other computers. The latter makes it possible to access programs on another system or simply to send information to ones consultants. In general a computer system will save time, which increases profit, and at the same time affords new practice capabilities. This is the era of the COMPUTER Revolution in Architecture.

Arne Foss, ARA, is a registered architect and has been in practice for the past 20 years. His firm has designed a broad range of commercial institutional, industrial, and residential projects. Two years ago he purchased his first computer. Since there were no programs of benefit to our profession available at that time, he enrolled in Computer Programming at Oakton Community College. In September of 1980 he was joined by Robert Ahrens, a friend and fellow architect, whose background in computers dated back to his college days when he wrote a program in "Fortran", Structural Plate Analysis, which was published in the June, 1970 Journal of Aeronautics and Astronautics, and then used in the U.S. Satellite Construction Program. Together they have written and tested in practice the first phase of a software system for the architectural profession.

NEW AAMA ENERGY PUBLICATION

The Architectural Aluminim Manufacturers Association has recently released a new document, Design for Energy Conservation with Skylights (AAMA TIR-A6 1981), which is a timely guide dealing with the energy conservation impact on the use of standard domed skylights in the building design concept. The purpose of this publication is to identify the major design parameters and to provide general architectural design guidelines for the effective and energy-efficient use of skylights.

This document is not self-contained, in that it provides the basis for design solutions solely through its own contents. What it does accomplish is to provide an easily understood and evaluated explanation of the computer base energy balance methodology, previously published in AAMA document 1602.1. With this new document the professional can review the design principles involved and obtain an understanding of viable skylight use parameters without becoming involved in the extensive calculations presented in 1602.1.

The publication reviews (1) the current acceptance status of skylights, such as DOE's classification of the product as a "Renewable Resource Energy Measure"; (2) an explanation of the positive contribution to building energy use reduction of the passive solar heat gain concept; (3) the total design advantages available within the energy balance evaluation using designed daylighting application.

Of particular interest to the designer familiar with the fact that the data involved in a definitive energy balance calculation requires computer analysis, is the provision of a preliminary energy impact guide. Using data derived from three years of energy balance computer analysis the AAMA has provided a simplified method to approximate the variation from standard performance of a building employing daylighting design through the incorporation of skylights. This provides the type of starting point "look-in" which is so valuable during conceptual design.
PASSIVE SOLAR SYSTEMS FOR ECCLESIASTICAL STRUCTURES

Steven P. Papadatos, AIA, ARA

Churches are ideal structures for the use of passive solar systems because their massive construction provides an excellent heat storage sink. Since they are unused most of the time, the space temperature can vary, thus maximizing the use of the solar heat stored in the building to maintain minimum space temperature without the use of a back-up heating system.

Standard passive solar design techniques such as water walls and trombe walls can be easily adapted in the structural design of the church. Some of these techniques may be possible and economical even in an alteration to an existing church. However, there is a unique feature of churches that could be beautifully enhanced as a means of solar energy collection, that is the use of stained glass.

Stained glass may be installed in vertical windows, clerestories and in some instances such as in Greek Orthodox Churches, in domes. Stained glass normally permits only a portion of the solar energy to enter the space, large portions of it are reflected back to the outdoors. (See Illustration 1). If another layer of clear insulated glass is mounted in front of the outside face of the stained glass, it will trap that reflected energy. Openings in the top, bottom and sides of the window should connect the interior of the church to the space between glass layers.

In this manner, the thermal differences between the interior of the church and the window will create a force that establishes airflow through the window layers and into the interior of the church, this air will carry the heat collected by the stained glass into the interior space. The openings should be fitted with motorized dampers that close at night when the temperature in the window may be lower than in the interior of the church. A simple time clock can perform this operation automatically.

To prevent overheating of the windows in the summer, a similar arrangement of openings can be accomplished on the outside wall. These openings, however, will have manual dampers to be opened at the beginning of summer and closed at the end. During the summer months, the time clock for the interior dampers is reactivated and the dampers will be closed. The treatment of windows as discussed, is applied only to windows that face south or west because of sun exposure.

The stained glass design for domes follow a similar concept except that the exterior layer of glass will be of the reflective type on the top. (See Illustration 2). This is a compromise between obtaining less sun in winter and minimizing overheating in the summer. The rest of the exterior glass in the dome will be clear. The roof finish should be reflective silver paint which will increase the amount of solar energy entering the space through the dome. This roof reflector maximizes the benefit of a low winter sun; more roof area will reflect sun into the dome, increasing the solar energy collected. The high sun in the summer will reflect only in a small area adjacent to the dome.

The interior openings will be located at the base of the dome (See Illustration 3), since a high
opening is not possible, a small fan may be required to create the air flow necessary for carrying the heat collected in the dome to the church interior space. The fan and dampers will be shut down at night.

The summer overheating is prevented by manually mounting a third layer of reflective glass in the lower part of the exterior dome. This third layer is dismantled at the end of the summer season. The stained glass windows and dome transforms an ornamental ecclesiastical feature of the church into a functional one by creating the stained glass windows as a solar absorber plate without losing any of its inherent beauty.

For church structures, community centers, and administration buildings with sloped roofs, the best passive form of solar energy collection and the most economical is through skylights. A reflector panel is mounted next to the skylight to increase the input of solar energy during the winter months. This reflector panel is closed at night and acts as an insulating panel to prevent heat flow from the inside structure toward the exterior. During the summer months the reflector performs the duties of a solar screen shading the daylight and reducing the heat energy entering the space. In this manner, it reduces the air conditioning load for the building.

To design a trombe wall in a church and/or church facility choose a southerly or westernly exposed wall without shading from nearby buildings, trees and/or shrubs. (See Illustration 4). The trombe wall is constructed by applying an insulated layer of insulated glass to a solid masonry wall or concrete wall leaving a three to four inch space between the insulating glass and the wall. The outside of the wall is painted a dark color and the inside of the wall is fitted with openings at the top and bottom to create circulation of air similar to the arrangement described for the stained glass. The inside openings close at night to prevent heat from escaping the building through the insulated glass.

Openings with control dampers are selected because they obtain the most benefit for a trombe wall. The other alternatives are to leave out the openings or to install openings without dampers.

Illustration 2 shows a section thru Saints Constantine & Helen Greek Orthodox Church in West Nyack, New York. The dome has been selected because it is part of Byzantine Architecture, which is the official style of the Greek Orthodox Church. The dome is constructed of double glazing material, the top of the dome is glazed in a reflective glass which deflects the high summer sun and the sides are glazed in a clear glass to accept the low winter sun. During the summer months temporary reflective panels are installed by the parishioners on the areas of the clear double glazing in order to deflect 98% of the solar radiation and again be removed during the winter months. The silver reflecting material which is painted on the roof serves two purposes: First, it reflects the low winter sun into the interior of the dome thus the clear glazing thus reflecting and being absorbed by the slate floor. Secondly, the silver reflection materials reflect the high summer sun from the roof, thus achieving a cooler interior. The 24'-0" diameter dome has been calculated to save approximately 50% of the heating cost in the nave. The advantage of utilizing a dome beyond the ecclesiastical requirements of the church is that entry of solar radiation is 180 degrees, thus giving approximately 10 hours of exposure to the sun each day.

Illustration 3
SECTION INDICATING THE AIR FLOW COLLECTED BETWEEN THE DOME LAYERS AND THE LOCATION OF THE FAN
Studies conducted by the Los Alamos Scientific Laboratory show that in the Metropolitan New York Area, the openings with dampers will increase the percent of heat collected by about 15 percent as compared to a wall without openings. The openings without the dampers will result in a reduction of about ten percent in heat collection as compared to the wall without openings.

Protection from overheating during the summer months is best achieved by external shading such as fixed louvered screens or by removable panels that may be applied over the insulated glass. Automatic means of venting the wall are not recommended since they are subject to failure and may dissipate all the benefits provided by the trombe wall.

Another method of passive solar energy is the use of water walls consisting of large vertical pipes filled with water. These pipes are exposed to the sun through windows on the exterior walls or clerestories. The heat is stored during the daytime for dissipation into the space at night. The water wall has the great advantage of simplicity of operating design. It does not require any automatic dampers and summer shading is easier to accomplish.

There are other design considerations which will improve solar collection in churches. The floors should be of heavy construction such as slate or tile with a dark color finish to absorb and store heat. Another item to consider is installation of insulation on the exterior walls. This method of insulating reduces the total heat loss through the building’s envelope and permits the storing of heat within the walls of the building.

Steven P. Papadatos, AIA, ARA, is the principal of the firm Steven P. Papadatos and Associates, New York, N.Y. He is a faculty member of the Institute of Design and Construction and Consulting Architect for the Greek Orthodox Archdiocese of North and South America. In addition to numerous national design awards for ecclesiastical remodeling projects, the firm’s St. George Basilica has been proclaimed an architectural landmark by the City of Norwalk.

25th ANNIVERSARY CONVENTION

San Antonio, Texas
November 4 - 8, 1981

Everything is in place for the most professionally rewarding and personally enjoyable Annual Assembly in the history of ARA Conventions.

That may sound extreme but our twenty fifth year is a significant milestone and deserves to be a memorable experience for all who attend. Planning for this year’s Convention started before last year’s Convention was convened and exceptional effort by a dedicated committee has produced a program which will make you very glad you came — and be remembered in years to come.

Examine the seminar program—topics which can improve your firm’s performance in the difficult 80’s.

Marketing Architectural Services — Professionally, Profitably, and Comfortably.
The Computer as a Design Tool.
Pension and Profit Sharing Plans.
Interior Design — Another Architectural Involvement.
Financial Management for Fun and Profit.
Legal Implications of Production Techniques.
The Relationship of Education and Practice.

Examine the social program—tours and events to rival the best vacation.

■ Early-bird golf and tennis outing.
■ Poolside reception in the graceful Spanish environs of La Mansion del Rio Hotel.
■ Dinner floating through the ambiance of the famous Paseo del Rio.
■ Rousing Texas barbecue dinner, complete with band for dancing or just plain listening.
■ Gala Anniversary Banquet preceded by the traditional Founder and President’s Reception.
■ Visit the Alamo and surviving historic Spanish missions.
■ Tour the restorations of the San Antonio Historic District and award winning contemporary buildings.
■ El Mercado, Breckenridge Park, the Institute of Texan Culture, and much more.

The detailed Convention announcement and registration form will be in the mail to the membership in early June. Don't file it away — fill it out and make your reservations now, before you get busy with other things.

While you are planning, don't forget the luxurious follow-on trip. November 8-12 at the Sheraton Hotel in Cancun, Mexico with tour to the majestic Mayan ruins of Chichen-Itza. The newest tropical resort and oldest major historic complex in the Yucatan.
How much are our project expenses?

How much profit are we making on this project?

Why can't we invoice on time?

How much time and therefore profit do we give away without charging?

How much are our monthly consultant charges?

These were some of the questions which stimulated the development of Update Systems Inc. A Service Bureau computer based financial management system designed specifically for Architects and Engineers, and other types of design oriented firms.

A team of architects, financial analysts and computer experts created Update. They recognized that in order to have a successful practice in today's competitive business world, there was a need for a mechanized financial management system. One that would give the professional the tools needed to sound financial management and planning, backed up by solid time recording system.

They saw the need for accurate information. As long as one maintains manual procedures which involve individuals to perform long, repetitive and laborious calculations, the possibility of inaccuracies will always exist. The use of mechanized systems will assist in maintaining accurate error free logs of time and other numerical data, which can become the basis for analysis within a total management system.

They also recognize the need for tracking additional fee producing services. Those in design oriented businesses are assuming more complex roles in today's projects and the services provided more frequently go beyond the scope of "Basic Services". In order to properly track these additional services, a system must be devised to record the time. Time which ultimately could mean additional fees. With the collective capability of a computer, all these services can be recorded, stored and ultimately returned in a form which can be clearly understood. This information can then be translated directly to fee producing dollars.

Lastly, Update Systems recognized the need to create effective overhead cost reduction techniques. By properly structuring a computer system, one can achieve overhead cost savings which in most cases will more than offset the operational cost. These savings will consist of both internal and external consultant services.

By utilizing the computer to its fullest capabilities, staff members who spend considerable time working on the basic accounting function of tracking time for billing or tax purposes, will either no longer be required or will be able to perform other tasks. By utilizing the recall capabilities of the computer, not only present period statistics become available, but also comparable quarterly and yearly figures. This capability will greatly reduce the time presently being spent by staff and outside consultants.

The resultant of these needs was the development of a customized, simple to use, inexpensive method of financial profit control, requiring no computer hardware or software purchase. The costs are a one-time franchise fee and a low monthly Service Bureau fee. The System eliminates the need for in-house mathematical computations and can be operated by any clerical or secretarial individual with a minimum amount of training.

In order to implement the procedures required to generate the output data, an input system of information is required. The key to Update's system was the design of forms which were simple to use, easy to understand, not repetitive in nature. The forms were also designed to provide a minimum of human error exposure.

Specifically the reports generated by the system from input forms are:

1. Time Record Report — for each employee's hours on all jobs worked on.
2. Time Analysis Report — chargeable and non-chargeable
   hours including accrued and reported vacation and illness hours.
3. Reimbursable Expenses Report — identified charges documented per type and project.
4. Consultants/Payable Report — status of billing and payments by individual consultants per project.
5. Direct Personnel Report — hour and dollar charges of each employee's per project both current and to date.
6. Project Progress Report — project financial conditions related to the phases outlined in standard forms of agreement.
7. Receivable/Payment Report — client billing and payment history per project.

The Update System can also encompass general accounting and other payroll programs to provide a fully integrated computer based financial management system.

The proper use of these reports will give a firm all the job cost management tools required to effectively analyze Project Status, Reimbursable Costs, Consultant Billing, Staff Productivity and Client Payment Histories.

Whether you're buying the hardware or software, technology is changing so rapidly that what you purchase today may indeed become obsolete tomorrow. Based on your purchase, it is likely your hardware or software will become inefficient or become a system that no longer meets your needs.

With Update Systems, you are given the flexibility of "renting" software for a modest licensing fee and using "our" computer for preparing reports. You are assured that the generation of computer and software you are utilizing will always be up-to-date. Large capital investments for equipment or software development are unnecessary. You receive the immediate benefit of any state-of-the-art improvements in the industry. Most important because Update Systems has been designed to grow as you grow, there are no worries about the system's capacity to handle expanding needs.

Using Update Systems, architects, engineers, designers and contractors can now combine business acumen and intuition with the factual results of computer printouts.
### Project Progress Report

**KLMJ Architects Inc.**

**DATE:** 11/1/80 TO 11/30/80  
**JOB NAME:** PARK PLACE OFFICE CENTER  
**JOB NUMBER:** 7752  
**CLIENT NAME:** PARK PLACE VENTURE  
**CLIENT NUMBER:** 300  

<table>
<thead>
<tr>
<th>ARCHITECT</th>
<th>100 RESEARCH/DEV/PROP</th>
<th>200 SCHEMATIC DESIGN</th>
<th>300 DESIGN DEVELOPMENT</th>
<th>400 CONTRACT DOCUMENTS</th>
<th>500 BIDDING &amp; NEGOT</th>
<th>600 CONTRACT ADMIN.</th>
<th>700 POST CONTRACT SERVICES</th>
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<tbody>
<tr>
<td>HOURS</td>
<td>DOLLARS</td>
<td>HOURS</td>
<td>DOLLARS</td>
<td>HOURS</td>
<td>DOLLARS</td>
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<td>6082.78</td>
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**TOTAL - INVOICE DATE:** 11/30/80  
**TOTAL DOLLARS:** 7960.78  
**TOTAL INVOICE DATE BALANCE:** 7500.00  
**% REP EXP:** 0%

### Direct Architectural Personnel Report

**KLMJ Architects Inc.**

**DATE:** 1/1/80 THRU 11/30/80  
**JOB NAME:** PARK PLACE OFFICE CENTER  
**JOB NUMBER:** 7752  
**CLIENT NAME:** PARK PLACE VENTURE  
**CLIENT NUMBER:** 300  

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<th>PERSONNEL</th>
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<th>ADJUSTED DOLLARS FOR R.U.</th>
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<tr>
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**JOB TOTALS:** 348.50  
**TOTAL DOLLARS:** 248.80  
**TOTAL INVOICE DATE:** 11/30/80

### Time Analysis Report

**KLMJ Architects Inc.**

**DATE:** 11/1/80 THRU 11/30/80  
**TIME ANALYSIS**

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<th>NUMBER</th>
<th>NAME</th>
<th>TOTAL HOURS</th>
<th>CHARGEABLE HOURS</th>
<th>NON-CHARGEABLE HOURS</th>
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<th>ALR</th>
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<th>ALR</th>
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### Receiveable/Payment Report

**KLMJ Architects Inc.**

**DATE:** NOVEMBER 30, 1980  
**RECEIVABLE / PAYMENT REPORT**

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<th>MOTH</th>
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<th>UNBILLED CHARGES</th>
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<th>TOTAL CHARGES</th>
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<th>TOTAL CHARGES</th>
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</table>

**RECEIVABLES:** $0.00  
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**3/80 0.00**  
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**5/80 0.00**  
**6/80 0.00**  

**BASE CONTRACT SERVICE**

**Example - Receivable/Payment Report**

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<th>UNPAID CHARGES</th>
<th>UNBILLED CHARGES</th>
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<th>TOTAL CHARGES</th>
<th>TOTAL CHARGES</th>
<th>TOTAL CHARGES</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>0.00</td>
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</tbody>
</table>
The feature articles in this issue concern themselves with the emergence of computer technology applications with specific value to the business and science of architecture. We see here the first forms of future practice which will allow one skilled person to exercise that skilled judgement more frequently, on a broader range of concerns, and from a deeper information base. Well configured and data-fed computer systems can give the 5 man firm of today the problem solving fire-power possessed by a 50 man firm of twenty years ago.

At the same time that we recognize this potential, we should also become aware that this "Computer Revolution" is not limited to its impact on our business practices — and those of everyone else. The impact which this extraordinarily powerful tool has, and will increasingly continue to have, can affect the very shape of society.

The effect of its infancy is all around us, so much so that we often fail to give it particular notice. Consider electronic banking, the all-purpose credit card, satellite communications, and "national reservation service" for almost everything. What will be the impact of its adolescence on the basic structure of society? That question should be a valid concern for those who anticipate practicing into the 1990's.

One rapidly blooming trend, linked to the type of readily available information processing concepts discussed in this issue, is that of interactive communications networks. While not frequently projected or analyzed in great depth, this trend carries the seed of massive change in the market for architectural services.

Desmond Smith of the Canadian Broadcasting Corporation, writing on the turn of the decade, offered that "the segregation of work life from home life, a phenomenon of the mechanical age, is likely to be reversed, and a back-to-home movement may well become the single most significant social trend of the 1980's." Far out and far away? Some common observation may bring the rapidity of movement into sharper focus.

Two-way television capability is currently a criteria for almost every cable franchise in this country — five years ago it was a novelty for 60 Minutes. The discussions in the media press are now concerned with what should be put on this "smart television" — the question of whether to do it is no longer being mentioned.

Already underway in Toronto is a Canadian Bell test of videotext which will supply users with over 100,000 pages of "on-demand" information. Lawyers currently have an at-home interactive case file system called "Lexis". Its use is taught in nearly 100 law schools and it is estimated that 60,000 lawyers have been trained in its application.

A federal energy crisis study predicted that, "the faster two-way TV spreads across the Nation, the greater the increase in the back-to-home movement." Why? Because, "as the costs of transportation continue to rise, we will start to rethink our priorities." And what more cogent priority can we have than the situation that while the cost of using an automobile is going through the roof, the cost of using a computer is falling through the basement. This dichotomy can be directly applied to a work force which the U.S. Department of Commerce states is more than half "information workers", who have no direct connection with a means of production.

The impact on architectural practice? As the workers and their work go home and stay there, the massive office complexes we know and love become an anachronism. As the stock of existing space is passed by falling demand, the need for ancillary, supportive commercial construction dries up. On the other hand, residential construction evolves from being a personal and discretionary consideration to a social imperative.

Finally, with the psychological and practical acceptance of "at-home" electronic working, shopping, learning, and entertainment, what will be the impact on the demand for construction of new "walk-around" shopping facilities, educational buildings, recreation centers, and transportation related structures? It is currently not going to be an upcurve but it could produce a second surge in retrofit demand, perhaps sufficient to move this share of total construction volume nearer the 75% level.

The rampant potentials for change in the structure of society, of which the computer revolution is just one, would seem to indicate some new criteria for the survival of the architectural professional. Flexibility, the ability to innovate, and a perception of trending would seem obvious requirements. In a potentially shrinking market, containing dynamic need flux, much of the experience of yesterday will be as worthless as a knowledge of Baroque ornamentation theory. But the tools of adaptation, of which the computer is prime, will be indispensable. Along with the mental and emotional adeptness to accept and utilize change.
STUDENT FUND REPORT
Harry E. Botesch, FAR

Our Society is an organization of Registered Architects, practicing in every area of the U.S.A., having a primary goal to encourage the registration of architects in order to foster high levels of professionalism and to protect the public from inferior architecture by those not so registered.

We stress our motto “Architect Helping Architect” by the actual practice of doing so. My years as a member of the Society have proven a benefit to me and to my practice. We are strengthening and gaining new members. The yearly conventions are informative, fun, exciting, and pleasurable for our wives and families, as well as for our professionals. We are able to see different areas of the country to visit exciting architecture, to strengthen our continuing education — which every professional is required to do in order to maintain high ability and maintain a professionalism that our clients can respond to.

With all of these accomplishments behind us, we know we are going to be a better, larger, and more acceptable organization that our peers will respond to.

Therefore, it is my recommendation that we proceed to another level of attainment; foster our motto and be “Architect Helping the Architectural Student.” We are all cognizant that we reach students only through our student competitions at present.

On the floor of the 1979 Convention I reported on OSHA, a review committee responsibility that I had undertaken for the Society. I took advantage of those in attendance and gave a short speech regarding a thought that I had had for some time — to form a “SARA Student Fund.” Other organizations are well advanced in helping our students who have set their sights to be performers in the Mother of the Arts, Architecture. My concept of this fund is to have funds donated by our members into the fund. The only money dispensed from the fund would be the interest created by this accumulation of money from our members. Candidates eligible for assistance could be third or fourth year students in a five-year program (Bachelor of Architecture) and possibly fifth-year students in a six-year program (Masters in Architecture). There could be many other considerations.

I had committed my firm in 1979 and made a $500.00 deposit. At the 1980 Convention I had the same opportunity to give a speech, and there did commit myself for a $500.00 deposit. Many offices are interested in this opportunity and wish to be participants. The officers of SARA are strong supporters of the program and have asked me to pursue the buildup of the fund. Hence, I am writing in our magazine to reach the many additional members of the Society who are not convention attenders. I have hope that some of our offices’ suppliers vendors may also participate.

Gentlemen, I am open to suggestions; and I am seeking participation.

I suggest that our legal advisors seek a non-taxable status, as a non-profit organization fund, so deposits can be deductible items. The officers or members of SARA should develop a controlling board of trustees to receive the funds and set the action for those who can receive support from the funds.

I also suggest that arrangements be made so participants can also deposit funds, a gift if you will through your will.

Suggestions:
1. Unrestricted Gift — I hereby give, devise and bequeath to the Society of Registered Architects’ Student Fund the sum of $__________ which shall be used for such purposes as the Trustees of the Student Fund shall determine.

2. Restricted Gift — I hereby give, devise and bequeath to the Society of Registered Architects’ Student Fund the sum of $__________ which shall be used to (state the specific purpose of the intention of gift). (Note: proper wording will be forthcoming from the fund’s trustees.)

3. Perpetual Gift — If your gift is valued at $10,000.00 or greater and you desire to retain ownership of the amount and only the income from the amount is to be given to the Student Fund, the money held can be returned to the giver at their request, but only after a minimal five-year sojourn.

There are many more ideas out there, gentlemen; please drop me a note. Send suggestions, ideas, methods, processes, and select some persons that could dedicate time as trustees of the fund, when established. At present, our President Bob Johnson has asked me to dedicate my time and effort to proceed with the SARA Student Fund.

Just today I received a check from one of our past presidents, Jerry Salzman, who wishes to be a participant. We have a good beginning, and I know the ending will be even more successful. Many architectural students will be able to say about the SARA Student Fund, that our motto “Architects helping students” is a working legend and does accomplish the reasons for its existence.

For your information, please send all checks to our Treasurer (Arnold Schaffner), as he is keeping the funds until a board of trustees and corporation of the proper type are finalized.
THE ARCHITECT'S ROLE IN CONSTRUCTION COSTS
Donald N. Udlin, AIA, ARA
Editor

The voice of the turtle "(as well as that of the design professionals and everyone else)" is heard abroad in the land describing the continuing escalation in building construction costs. With valid concern for the welfare of our industry, our fellow citizens, and our nation.

In a recent article a major realtor noted that the single greatest inhibition to industrial plant construction was not a lack of demand, but the inability of rental costs to catch up with continuously rising construction costs. And that translates into lost jobs, not just in construction but in industry as well — plus more potential productivity increases delayed.

As architects, we are possibly more painfully conscious of this situation than most segments of the population. However, as architects, while we are engrossed in our routine activities of preparing environmental impact statements, sifting OSHA requirements, and studying passive solar economics; how many of us have had the time or inclination to contemplate the contribution that we ourselves make to the cost of construction? This question does not relate to internal business administration — getting another half sheet a day out of the drafting force or leasing a printer with a lower cost per sheet factor — in a desperate attempt to lower already strained fees. Instead it relates to leaning on traditional practices which increase other peoples' cost of doing business.

What brought this question to the forefront was the recent opportunity to review a private study on industry practices in the manufacturing of large custom skylights. The overhead consuming efforts required to compete in this marketplace are, or should be, appalling to concerned architects. Principally because we create the market conditions to which these efforts must respond.

The specific practice considered here is that of requesting complete skylight application engineering and detailing from a particular manufacturer for incorporation into the architectural working drawings. In a majority of the situations occurring in this study, the manufacturer providing this service was given no specification or bid preference and did not receive the contract for the work.

As a result, the project was reengineered by the successful manufacturer and redetailed to suit his specific components in the shop drawing phase. Thus, again in the majority of cases, the installation was done twice "(not counting any adaptive engineering performed by other unsuccessful bidders)" and two manufacturers incurred the overhead cost of performing one installation. This double overhead expense will be factored into the next bid and that one's double overhead into the next, etc. The final result being increased product cost. Only for "overhead", which produces no tangible project benefit.

There will already be readers thinking, "so what, that is the competitive bidding system." Bull — the initial unnecessary overhead cost is engendered solely by the practices of the architectural firm designing the project. Whether it is from laziness in getting someone else to do the work rather than learn what is necessary, cowardice or lack of confidence in making an informed decision and then sticking to it, or a blind reliance on what "has always been done", the situation stems from the same root. The architect asked for it!

Other options were available: a negotiated contract, in-house design, or performance specification just to name a few. So the excuse that, "this is the only way to do it", just doesn't stand up to examination.

How many other supposed "short-cuts" do we take in the course of normal practice which actually just transfer, and ultimately multiply, the expense of our decision making to someone else? The "free" engineering layouts, the evaluation services, the detailing "service" from firms that we hope will be underbid in the final go-round. All of these "easy ways out" represent our direct contribution to the escalating cost of construction products.

Many of the architects who have written for these pages speak lovingly of the Architect as Master Builder; an historical concept which, if not immediately practical, represents a suitable goal for practitioners of this profession. However, a "Master Builder" does not unknowingly derive his work from the efforts of others or expeditiously transfer costs off to other members of the building team. Leadership involves both competency and responsibility. It would be fitting if while we are refurbishing the image of our profession, we were also examining the conventional methods and attitudes of our practices to objectively evaluate where we are the culprits in conditions that we deplore. Taking remedial action where required would go a long way toward defusing the sometimes objective, oftentimes illogical complaint that too many problems are the responsibility of the "impractical" architect.
DISPLAY OF ARTISTIC TALENT ANNOUNCED

In conjunction with this year's convention, the Society will be sponsoring a new Artistic Awards Program. The program is structured to recognize the artistic talents of ARA members in areas other than building design.

There will be five categories in which the work of our members will be judged and for which three levels of awards will be available. Category A will be devoted to photography, either black and white or color. Entries must be a minimum of 8" x 10" and may be framed or mounted as desired.

Category B is defined as "graphic arts", which will include all art work in any graphic medium, provided that it is less than twenty five square feet in area. Either the original work or not less than two or more than four 8" x 10" color photographs may be submitted.

Category C consists of murals and graphics which exceed 25 square feet in area. Work for submission may be portable or permanently incorporated into the interior or exterior surface of a building. Again, two to four 8" x 10" color photographs of each entry should be submitted.

Category D includes sculpture in any medium or size. If a photographic submission is made the 8" x 10" color prints must show at least two different views of the subject. Sculptural work which is easily transported may be submitted in its original form.

Category E will include all works of art or design which do not correspond to one of the other four categories. Possible submissions might be furniture, needlework, weaving, bookbinding, or recombinant DNA creations. Either the original work or photographic representation may be submitted.

The judging for this awards program will take place at the San Antonio Convention. All entries, whether shipped or personally delivered, must be received at the convention registration desk in the hotel by noon on Wednesday, November 4th.

The entry fee will be $10.00 for each category entered regardless of the number of items submitted in that particular category.

Entry forms and complete information on this new program should currently be in the mail. So take advantage of this opportunity to show off your avocation.

DISPLAY PANEL OFFER

The SARA owns a number of display panels formerly used for exhibits at the INBEX show, a building exposition held in Chicago. The show is held in other cities and the panels are not being used.

This group of panels consists of nine 4' x 6' high, and three 4' x 5' high. The manufacturer is Brewster Corp., Old Saybrook, CT 06475. The colors are Lemon, Brown and Orange, with white tubular uprights. Easily and quickly assembled, they are useful for exhibits or office landscape partitions. The panels have two-sided surfaces of Nylon Grabfab to which Velcro tabs will adhere. Brewster's Sho-Walls are described in the 1981 Sweets, section 10.2/Br.

These panels are for sale if an acceptable offer is made.

Contact G. Robert Johnson, FARA, (312-724-8200) with an offer if you are interested.

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