Northwest Architect

July/August 1972
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SO YOU WANT TO BE AN ARCHITECT

The intent of this issue is to give the young person interested in architecture some background on the education of the architect, the practice of architecture and the challenging and complex roles an architect in practice today can be expected to assume.

Architecture is in a period of transition and always has been. It is subject to convulsions and pangs. While it may be exhausting it is also exhilarating, exciting and cool and it is going to need many energetic young talents if it is going to help “shape the future”.

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JULY-AUGUST, 1972

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Before — pool surface is cracking and peeling (see inset). Pool needs daily cleaning and filtering system maintenance once a week.

That's what officials at Park Senior High School, Cottage Grove, Minnesota, concluded when they totaled the cost of maintaining their painted pool from 1966 to 1972.

The maintenance and contracted work included sandblasting, painting, cleaning paint chips from the filtering system, daily pool cleaning, etc.

Officials decided to cut costs with Ceramic Tile early this spring. Now with work completed, they have a beautiful pool that will last indefinitely — with minimum maintenance.

After sandblasting paint and cleaning surface, Ceramic Tiling begins. Guildset Craftsman beats Tile into setting bed for permanent installation. Guildset Craftsman installs individual mitered Tiles for uniform finish.

Grouting completes installation of trouble-free Ceramic Tile.

After — pool has durable Ceramic Tile surface that won't chip or peel. Maintenance costs are cut and pool will look new for years.

OLD AS HISTORY — MODERN AS TOMORROW
MINNESOTA CERAMIC TILE INDUSTRY
"We shape our buildings; thereafter they shape us."
Winston Churchill

"Architect... 1. A master builder. Skilled professor of the art of building whose business it is to prepare the plans of edifices and exercise the general superintendence over the course of their execution.

2. One who designs and frames any complex structure: especially the Creator; one who arranges elementary materials on a comprehensive plan.

3. One who so plans, devises, contrives or constructs as to achieve a desired result (especially when the result may be viewed figuratively as an edifice): a builder up..."

Oxford English Dictionary

"No person who is not a great sculptor or painter can be an architect, if he is not a sculptor or painter, he can only be a builder."
John Ruskin

"Architecture is the art which so disposes and adorns the edifices raised by man... that the sight of them contributes to his mental health, power and pleasure."
John Ruskin

"The fate of the architect is the strangest of all. How often he expends his whole soul, his whole heart and passion, to produce a building into which he himself may never enter."
Goethe

"The art of dancing stands at the source of all the arts that express themselves first in the human person. The art of building, or architecture, is the beginning of all the arts that lie outside the person; and in the end they unite."
Havelock Ellis

"I call architecture frozen music."
Goethe

"Architecture, sculpture, painting, music and poetry may truly be called the efflorescence of civilized life."
Herbert Spencer (Essays in Education)

"The surest test of the civilization of a people — at least, as sure as any — afforded by mechanical art is to be found in their architecture, which presents so noble a field for the display of the grand and the beautiful, and which, at the same time, is so intimately connected with the essential comforts of life."
William Hicking Prescott

"Everything betrays us as a bunch of catchpenny materialists devoted to a blatant screeching insistence on commercialism. If you look around you, and you give a damn, it makes you want to commit suicide."
Edward Durell Stone (N.Y. Times) 8/26/64

"In the architectural structure, man's pride, man's triumph over gravitation, man's will to power, assume a visible form. Architecture is a sort of oratory of power by means of forms."
Friederich Nietzsche

"I prefer drawing to talking. Drawing is faster and allows less room for lies."
Le Corbusier

"Architecture is a cultural instrument. Man wants to express something that he sees in his mind or feels in his soul, but few men get the chance — especially college students. But every time a college student walks past a really urgent, expressive piece of architecture that belongs to his college, it can help reassure him that he does have that mind, does have that soul."
Louis Kahn

"Architecture is the art of building in such a way as to accord with principles determined not merely by the ends the edifice is intended to serve, but by high considerations of beauty and harmony. It cannot be defined as the art of building supply, or even of building well."
Encyclopedia Brittanica (11th edition)

"Ah, to build, to build! That is the noblest art of all the arts. Painting and sculpture are but images, Are merely shadows cast by outward things On stone or canvas, having in themselves No separate existence. Architecture, Existing in itself, and not in seeing a something it is not, surpasses them as Substance shadow."
Henry Wadsworth Longfellow
Why become an architect?
What does the profession of Daedalus have to offer its members?
No two architects will give you precisely the same answer. For Robert G. Cerny, president of the prestigious Minneapolis firm of The Cerny Associates, it is the challenge of doing a "totally positive thing" and influencing the decisions of the "real leaders" in the community. For Jack Boorman, a Cerny employee since the fall of 1970 and now in charge of the company's design department, it is the excitement of being part of a team that creates a building where none existed before.

For Thomas F. Ellerbe, former head of the nationally known architectural firm that bears his name, it is the pleasure of dealing "with something constructive" and the awareness that an architect has a "tremendous impact on man's environment if he does a good job." For Philip Giuntoli, a young designer in Ellerbe Architects' St. Paul office, it is "the knowledge that if I draw a line on paper, when the building is built that line will be there, and I can go and see it — and see other people use it and react to it."

Aside from their chosen profession, these four architects have little in common. Ellerbe, at 79, and Cerny, at 64, have risen to the top of the profession; Boorman, 25, and Giuntoli, 24, have just entered it. Ellerbe assumed control of a successful firm established by his father in 1909; Cerny worked in partnership with several other architects before beginning his own outfit 12 years ago; Boorman and Giuntoli moved directly from college campuses into large, flourishing companies.

All four, however, agree on one fact: they like being architects. They like being in a creative profession, like having the power to determine how buildings will look and people will use them and like knowing they are in a unique position to produce positive and lasting effects within their communities.

They agree, too, that architecture pays well enough to let them lead comfortable lives — but not well enough to make them rich.

Cerny, who used to pay himself one dollar an hour in the early years of the Thorshov and Cerny partnership, puts it this way: "You're in a profession to make money, but that's not the only objective. A profession has as its major compensation, I think, the pure joy of the work, the satisfaction and a certain status."

Cerny came up the hard way. Although he "was one of the happy guys who knew what he wanted to do" from childhood, he came into the profession in 1933, the worst year of the Depression, and this was the end of the world."

He survived by teaching at the University of Minnesota and later by working nights while teaching days. Reflecting on his career, Cerny says he doesn't have "a regret in this world."

"I'm happy in my profession. I enjoy it every day. There's never been any tapering off of interest. I have as my friends, I would say, those people in the community who are effective leaders; the real leaders of a community are very exciting people, so it's an exciting life."

Unlike Cerny, Ellerbe had difficulty deciding on a career in architecture. His formal architectural education, he recalls, "was a total disaster" that ended after three semesters. His father's death in 1921, however, brought him into the profession to stay.

For Ellerbe a major reward has
been his firm’s success in hospital and clinic design. The Mayo brothers were among the firm’s first clients and the Ellerbe concept “for the proper planning of diagnostic facilities evolved right along with the Mayos’ group practice idea.” As a consequence, Ellerbe says, his firm “is a household word in hospital planning. The prestige is something that’s really fantastic.”

For younger architects personal satisfaction in their work is architecture’s greatest attraction.

“The most important thing,” Boarman says, “is to produce the best architectural product in line with my abilities. My goal is a very simple one: to be involved with the very best architectural product I can, to be in a team that’s well-led, whether I’m the leader or somebody else is.”

Boarman thinks his professional expectations have risen after two years of job experience.

“I’m more realistic,” he notes. “I’ve developed an appreciation for the reality of how buildings get built. The excitement has just built up and up and up. It’s so dynamic — just like a giant beehive. If I weren’t in architecture, I think I’d be in construction.”

Giuntoli finds enjoyment not only in drawing but in “the thinking” about how a building out to function to serve its occupants’ — and the community’s — needs.

“There used to be this myth that you had to be a super-drawer,” he observes, “but architecture really isn’t drawing, it’s volume and space and moving through problems in series. I’ve learned that the coordination of these various disciplines is probably the most important thing in the final product.”

The architect, Giuntoli adds, is “the closest thing to being a Renaissance man” that modern society can offer.

All four architects would heartily recommend the profession to young people.

“There are opportunities lying all over,” Cerny declares. “As in all professions, there’s most room at the top. The question is whether, given a reasonable amount of talent and intelligence, a guy’s willing to work for it.

“Architecture is a totally positive thing. The law is not. The medical professions are probably 80 percent corrective. But there’s something very positive about building. It’s a hell of an adventure, if you’ve got the guts and a client who’s farsighted enough to walk with you.”

Roy M. Close is a staff writer for the Minneapolis Star. He is the son of Elizabeth and Winston Close, both Fellows of the American Institute of Architects.
The rewards of being an architect are many — and varied. When you talk with anyone who chose architecture and planning as his, or her, life work, you are soon impressed by the fact he is a person at peace with his occupation. He is not wealthy in money but he is very rich in that certain satisfaction that money cannot buy! He has chosen a career well and having remained with it he has undoubtedly achieved a point where he doubts not one whit that his choice has paid off in interesting work, energizing challenge, the day-to-day excitement of seeing progress made and, when the final ribbon of a new structure is cut, the ultimate thrill of being part of something people can see, use and appreciate.

The architect is concerned with the multitudinous activities and hopes of society itself for he is constantly called upon to guide the creation of an environment in which his fellow men and women can live lives at their fullest. That “fullest,” thanks to him individually or as a member of the team, means the planning and construction of an environment conducive to good health, providing for working in an atmosphere where talents are encouraged to their best, where leisure time can be filled with what each one wants to do most, in which the economy fits individual and group means and the many related areas of satisfactory fulfillment of “ego.”

The road to becoming an architect is roughly divided into three sections — (1) education to provide architectural training and skills, (2) experience gained in practice of those skills in a working environment and (3) ultimately the examination of one’s developed training which will lead to licensing as an architect.

First Road — Education

The young person embarking on the first leg of his journey to become an architect will find a good choice among the more than 90 schools of architecture connected with various colleges and universities all over the country. Their value to him can be judged by the fact that about two-thirds of them are accredited by the National Architectural Accrediting Board. This means that the curricula in these schools meet certain levels of excellence and it is a fact that graduation from an accredited school definitely counts for something when the graduate appears before his state licensing board.

Non-accredited schools generally are those with newer programs and they are usually working toward accreditation.

In addition to university level training there are many excellent technical schools and junior colleges which offer para-professional programs for architectural draftsmen, technicians and other closely related members of the architectural team.

Emphasis of the programs at the various schools of architecture differs considerably. The University of Minnesota is recognized for excellence in design; other schools may be strong in engineering aspects, construction technology, etc. The choice of school depends on the emphasis of its program as well as its location, size, costs and availability of financial assistance, all of which will be considered by the student as he starts toward his first year of architectural education.

Most schools of architecture are highly selective and admit only well qualified individuals. The School of Architecture and Landscape Architecture at the University of Minnesota accepts applicants after one or more years of university level work and places heavy emphasis on their academic records.

The successful architectural student must possess ability and interest in drawing and designing but he must also be highly motivated. Generally less than half of the entering students go on to complete the work required for a professional degree.

The University of Minnesota has three degree programs which are fairly typical of schools throughout the country. The five-year curriculum requires one year of preparatory work and four years of professional study leading to a Bachelor of Architecture. There are two four-plus-two optional schedules: the Bachelor of Arts which can lead to a Bachelor of Architecture and the Bachelor of Environmental Design which can lead to a Master of Architecture.

Curricula center around architectural design, supplemented by courses in architectural history, drawing and painting, environmental and structural engineering, construction technology and professional practice. Academic train-
In the early spring of 1966, Prof. John S. Myers and the Grade Three Architecture Class in the School of Architecture, University of Minnesota, coming out of the doldrums of a Minnesota winter, spirited a new program into existence which has since encouraged some 200 students to study architecture and planning in Europe.

William Pederson, then a Rome Prize winner studying at the American Academy in Rome, initiated the idea in a letter to Professor Myers, his former instructor and friend. John then implanted the idea in the Grade Three Class and together the professor and his students planned and implemented a program which would take them abroad. With a few persuasive quarts of Chevas-Regal, an already open minded faculty was convinced of the program's merits. Thus in late March 17 students and the professor took up residency in the Villa Caproni along the Tiber River in Rome, Italy.

The study undertaken for that first year was to understand the metropolitan transportation networks within old Rome, with specific reference to a redesign of streets atop the flood walls of the Tiber River. Team studies grappled with several areas, such as the Castle St. Angelo and the entry to St. Peter's. Through critiques from Roman architects and planners, it soon became apparent that solutions to the problems the group observed were being distinctly weighted with Midwestern American habits of thought. For instance, efficiency of transit, if allowed to prevail as a prime criteria to the design of roadways, would create escalated land values in old Rome and consequently force higher utilization of land.
This latest addition to the Staples area vocational system provides 103,000 square feet of classrooms, shop areas, and offices for the Heavy Equipment Facilities program.

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A variety of wall panel sections was employed to give the project versatility and architectural interest, including sandwich-insulated walls, which required only a final painting. The 23'-6" high by 24" insulated double tee wall panels were employed on all four elevations. Six-inch thick insulated flat panels were utilized as exterior-interior walls in corridors. Feature panels included special window sections, fascia and base trim, accent flat slabs over door openings, and the 8 ft. x 24 ft. entrance signs.

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currently containing historical structures. Thus, through a process of investigation, design and especially design review, the students began to question many of the assumed parameters to the solving of urban problems.

Not long after entering Rome and having found small group living quarters, it became apparent that adapting to the Roman life style was becoming a most profound educational experience. In the Campo de Fiore, a small piazza near the Farnese Palace, a great spectrum of Italian life could be seen within the time frame of one day. The piazza altered from a marketplace in the morning, a tot lot in the afternoon, a restaurant in the early evening to a brothel at night. The multiple use of space and the vertical stratification of functions were in intriguing contrast to the suburban concepts of land use planning so apparent to the American designer. Also, the sense of pedestrian scale, so often talked about prior to Rome, was an ever present feeling as soles wore out on daily treks throughout the city.

Upon returning to Minneapolis an exhibition was constructed which attempted to capture both the educational content and experience of Roma '66. It became the prototype of five additional gala happenings in the Architecture Court. In successive years the program returned to Rome in '67 and '68, Barcelona in '69 and the cities of Germany and Switzerland in '71. Students of the '72 program are currently homeward bound from the Italian hill towns surrounding Florence. The annual re-entry culture shock takes shape
in the exchange of napsack, wine bottle and Euro-Rail pass for the hammer, paint and photostat bills connected with presentations.

The following examples are but a brief glimpse into the visual reflections of the students involved in the programs abroad.

Dale Mulfinger
Student, Roma '66
Teaching Assistant, Greece '70

This Spring's European Study

The most recent European study, occurring last spring, involved 35 students under the supervision of Prof. Kay Lockhart and focused on the Italian hill towns. From a base in Florence 10 groups were organized to study various hill towns scattered throughout Italy. The emphasis was on evolutionary planning, urban character and urban scale.

The relevancy of such exposure is obvious; to understand how these micro-urban environments function is a step towards understanding the problems and possible solutions to our own urban problems. This year’s exhibition, to be open the middle of October, will focus on an analysis of each hill town and students’ photographic and artistic impressions of their experience.

No doubt the most valuable aspect of this and previous European studies is simply the exposure. Much of what students extract every spring is undefinable impressionistic knowledge. Their lives have been substantially enriched and their interests in art, history and architecture broadened.

Chris Shears

JULY-AUGUST, 1972
Sauk Centre High just made plans for the 1997 class reunion

When the class of 1972 meets for their 25-year reunion in 1997, chances are they’ll be running into an old friend — Romany-Spartan® Ceramic Tile.

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The years immediately following World War II were characterized by rapidly increasing enrollments in the School of Architecture at the University of Minnesota and frantic efforts by the school to deal with the resulting problems. One of the solutions employed was to limit enrollment, based upon the capacity of space occupied by the School of Architecture to accommodate enrollment. During this period the standards for acceptance and admittance into the school became highly selective. The element of competition, principally in the design studios, tended to further upgrade the generally high standards in the school. The number of students withdrawing from the bachelor's program was proportionately very large. Of an entering class during this period an average of only 10 to 15% completed the requirements for the Bachelor of Architecture degree. The high mortality was attributable in part to the intense competitive spirit within the school and the somewhat limited curricular framework which tended to favor those more gifted in design. Graduate study at Harvard or MIT became common for the gifted graduates of the school.

After the retirement of Roy Childs Jones as head of the school in the early 1950's, and a short interim directorship of the school, Ralph Rapson was appointed professor and new head of the school. Under his leadership the school evolved with an expanded sense of mission during the 1950's and 1960's. With the construction of a new School of Architecture building in 1960 enrollment capacity had been nearly doubled and continues today to grow beyond the limits of the new building. The Graduate School Program, which had languished under the pressure of the immediate post war years, was rebuilt and developed. Candidates for the M. Arch. degree have been comprised of individuals from all regions of the United States and from Europe and Asia. A department of landscape architecture was developed and established.

A new curricular framework is now being instituted. It will combine all students in the school in a basic core program providing an undergraduate degree of Bachelor in Environmental Design in four years. More specialized studies in architecture, landscape architecture and sub-specialties in each field in the graduate program will culminate in degrees of Master in Architecture or Master in Landscape Architecture after an additional two years of study.

The design studies curriculum has been modified and expanded to provide a wide range of choice, in terms of faculty critics, subject study areas and emphasis, and in physical and organizational settings. One of these options is the so-called experimental studio which works within the real community identifying and finding real environmental design problems and in providing design services to a clientele which is unable to afford the services of a professional in the environmental design field. The faculty of the school has been expanded and enriched with individuals who provide specialized teaching competencies and specialized areas of expertise interest.

New courses have been introduced dealing with experimental architecture and the use of the computer in the physical design field. While the school expanded the framework of its curricular offerings and the academic scope of its programs, the intense competitive spirit built up within the school continued. The range in performance in the design curriculum, as one might expect, is not unlike the early post-war years. However, the basis in motivation and interest has been expanded in totally new facets of learning and discovery.

Graduates of the School of Architecture at the University of Minnesota have been sought after in professional offices throughout the United States. They have been represented in many of the major architectural firms, nationally, and are represented on faculties of many of the important collegiate schools of architecture as well. Four men currently have appointments on the architectural faculty at MIT. The school has undoubtedly established a national reputation for excellence.

The School of Architecture continues to adapt to the evolving needs for professional skills in the field of environmental design. The construction industry in 1972 is embroiled in an industry-wide redefinition of traditional roles in increasingly varied approaches to the management of the design and construction processes. It appears that these issues will tend to be among the foci for generating new and modified academic programs in the 1970's. The School of Architecture will undoubtedly continue to face up to new issues just as it molded and expanded its academic and curricular capabilities in response to the focus on social and urban problems during the 1960's.

John Rauma, a principal in the firm of Griswold and Rauma, Inc., Minneapolis, is an Assistant Professor in the School of Architecture, University of Minnesota.
The American Institute of Architects (AIA), founded in 1857, is the national professional society of the architectural profession in the United States. It has more than 22,200 members who are licensed architects.

The AIA’s national headquarters and staff are located in Washington, D.C. It has 24 state societies, of which the Minnesota Society of Architects is one, and 170 chapters across the nation, including those in Saint Paul, Minneapolis and Northeastern Minnesota (Duluth, Superior, Wis., and other communities). Student chapters are active at many colleges and universities.

The professional society has three major missions:

- To maintain and improve the competence of today’s practitioners,
- To create a sufficient supply of well-trained practitioners for tomorrow and
- To represent the AIA and its members before professional and industry groups, government and the public so that good design is encouraged by law and demanded by the community.

Institute programs are financed through members’ dues and include a continuing concern with architectural design, structure and materials; business and production aspects of architectural practice; architectural education and research; urban design; public affairs; governmental affairs; inter-professional and industry relations; and other subjects of interest and importance to the AIA’s members and to the public.

The AIA’s programs and activities are guided by its officers, directors, committees and members and are carried out by its members and staff on national, regional and local levels.

Membership in the AIA is open to every licensed architect who is a citizen of the United States and can satisfy his local AIA chapter and The Institute’s committee on membership that he has the necessary professional qualifications. The Institute also is vitally concerned with architectural education and training.

The organization, services and programs of the AIA are constantly studied and revised to keep abreast of the needs of the architectural profession and the demands of the public for environmental design leadership and services.

The Minneapolis, Saint Paul and Northeastern Chapters, with a total of 610 members, make up the basic membership of the Minnesota Society of Architects. Deeply involved on their area levels with the architectural and environmental problems of today, the chapters as groups and through their individual members contribute significantly of their time and professional expertise.

The Minnesota Society of Architects is one of the most robust and progressive components of the AIA. It is deeply involved in all phases of the activity of the profession. It is presently leading discussions with the Minnesota School Board Association (MSBA) relative to the nature of services and agreements between the architects and the school board.

In the area of professional development MSA has sponsored an AIA lab on "The Architect as Developer," the second annual Design Seminar sponsored by the Northeastern Minnesota Chapter, which will be held in September at Lutsen Resort, "The Summer of '72," a series of four design programs held in the Walker this summer, sponsored by the Minneapolis chapter, and plans for continued programs in the future. The MSA believes that a strong professional development commitment results in better qualified professionals, serving their clients better.

The architectural profession, like much of the world, is going through a period of great changes and adjustments. The AIA has had to go through somewhat of an identity crisis in responding to and shaping this change. 1972 proved to be a meaningful year for the Institute in defining what the priorities are for our profession and led to the unveiling of a major National Policy Statement on Growth to the Year 2000. Architects’ responsibilities go far beyond the realm of design — they have charged themselves with making a viable, liveable environment for every member of our society. To do this architects obviously must have a part in making the decisions which affect the environment. This means participation in political, social and economic decisions from the community on up.

Land is now our most sacred resource and the profession through the AIA has taken a firm stand now on land use in the United States.

In its National Policy Statement on Growth the profession has taken a stand on the way built-America will take form in the future. The report is controversial in the sense that it changes many of the basic guidelines that now shape the development of American communities. It is also unique in one very important respect — it works. It is feasible under present economic conditions, present social order and present goals.

(continued on page 173)
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The Architect as Teacher
By Gloria M. Segal

Cedar-Riverside, on the west bank of the Mississippi River 12 blocks from downtown Minneapolis, is America's first federally designated "New Town-In Town." One hundred acres of the 340-acre community will be redeveloped over the next 20 years into a highly urbanized community. Rich in history, culture and educational and medical facilities, Cedar-Riverside by 1990 will house 30,000 persons of all ages, incomes and life styles in 12,500 apartments. Up to 60,000 will work or shop in the area each day or utilize the medical, educational and cultural resources of the community. River parkland will be extended and improved and open space will be emphasized for the enjoyment of residents and visitors. The convenience of center-city living will be supplemented in Cedar-Riverside by high quality commercial, cultural and community facilities and services to create a balanced living, working and leisure time environment.

The private redevelopment of Cedar-Riverside's 100 acres of non-institutional land began in 1962 when Keith Heller, then Assistant to the Dean of the Business School at the University of Minnesota, advised my husband and me to invest in real estate as a tax shelter. The first real estate purchase made was an entire city block, located across the river from Cedar-Riverside but adjacent to a university dormitory. The place had been affectionately referred to by those of esteem at the university as "a charming 100-year-old faculty slum" — charming because in the entire university community it was the only 45-unit apartment complex with a quiet interior court of green grass and large old trees.

This initial purchase led a few months later to our asking Ralph Rapson, Head of the School of Architecture at the University of Minnesota, a question which has led to an investment of approximately $1,500,000 in planning fees and architectural drawings, $30,000,000 in land cost and $33,000,000 for the Stage I project currently under construction.

The question posed by a college teacher-administrator and perennial student-busybody nine years ago was, "How can the enjoyment and celebration of life be improved in a university community where the volume of traffic and people choking the streets already equals that of downtown Minneapolis and St. Paul?"

The study of those physical and social design characteristics that could add to the joy of life evolved (a favorite word around our office) because the architect had the patience and physical stamina to be the teacher.

In the early 1960's, during our land acquisition period, Mr. Rapson traveled with Keith Heller and me, pointing out other projects elsewhere in the country, admonished us for thinking of building a three-story walk-up on a 66' x 165' site in the middle of a block and challenged our goals to improve the quality of urban life. The search for architectural quality preceded our financial ability to implement it.

As well as the land, we were buying houses with people in them and, along with the houses, all the maintenance and people problems of old inner-city neighborhoods. Our management philosophy evolved with our social goals and objectives. We accepted the community as it was, the pretty and the not-so-pretty, the old and the young, and we tried to add to the diversity that already existed. Rents were not raised in units which we acquired, so the old-timers remained. Residential leases have not been required, nor have any rental collec-
tion agencies been utilized. Our rent loss is less than 1%.

When Keith Heller and I could no longer meet each resident ourselves, our first social worker was hired. In the several years since others have been added to the resident relations staff to visit elderly, operate the relocation program and work with resident requests. Physical rehabilitation of existing structures to upgrade the wiring, plumbing and heating was decided upon and a large maintenance staff was employed.

In 1968 University Community Properties, Inc., was formed for rental and property management. Presently we operate more than 1,200 units (apartments, duplexes, rooming houses and commercial). Our offices are in an old ice cream factory in the middle of the community (my office is in the freezer). Planning, management, resident relations and maintenance are all housed together. Almost half of our staff are residents of Cedar-Riverside. Project architect Rapson's office is also located in the community — on the third floor of an old drugstore.

In 1969 Henry T. McKnight, a Minnesota conservationist and former state senator, joined us and Cedar-Riverside Associates, Inc., and Cedar-Riverside Properties, a limited partnership, was formed.

From 1966 to 1969 intensive planning studies (a stack at least two feet high) on a community-wide scale were developed by a multi-disciplinary team which included Ralph Rapson, Head of the University of Minnesota School of Architecture; Rod Engelen of Barton-Aschman Associates, Inc., land use, traffic and planning coordination; Lawrence Halprin, environmental design and landscape; Robert Siler of Hammer-Greene-Siler, real estate research and economics; Dr. David Cooperman, sociology; and Heikki von Hertzen, community planning. A year ago Paul Pink of Gingold-Pink Associates joined the team as associate architect and Peter Walker of Sasaki, Walker Associates joined as open space and landscape architect.

(Continued on page 174)
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The magnitude of a project such as Cedar-Riverside is such that no one field or profession has the necessary depth or expertise to resolve the many complex issues of social planning, financial planning, urban planning, environmental planning, architecture, landscape architecture, urban design, urban and political processes, programming, construction drawings and construction.

Therefore, it was felt that a planning team approach could be more effective than a single planner.

Because of the nature of the multi-member design team it was recognized very early in the planning process that a systematic approach to planning and design would be required. As a result an overall program of planning activities was conceived and concepts for the orderly organization and division of labor were devised.

The responsibility for directing and managing the design team is that of the Cedar-Riverside "in-house" five-man planning and development section. The planning and development section is nearly representative of the multi-discipline design team background in terms of diversity. The members of the P & S section represent such fields as architecture, engineering, social planning, urban design and urban planning and administration and are affiliated with the AIA and AIP.

Through the P & D section a constant dialogue and exchange is maintained with the multi-discipline design team and regular coordination meetings are scheduled as the planning process evolves. This system provides a flexible method whereby particular areas of planning can be emphasized when required and provides a continuous check and balance by the individual planning team members who will not allow the planning process to become unbalanced in favor of one particular planning discipline.

Essentially the planning and design process breaks down into four broad categories: (1) master planning, (2) design planning, (3) construction planning, and (4) building management and evaluation.
planning, (2) design planning, (3) construction planning and (4) building management and evaluation. Each of the broad categories is comprised of a series of elements and it is at this level that interchange of the planning team’s ideas takes place.

To better illustrate the planning process, the accompanying diagram has been prepared to identify the individual planning team member’s participation as the plan evolves. Obviously the interaction of team member participation is not as clear-cut as the diagram might imply. The diagram is meant to indicate that particular team member who would logically take the lead at one particular point in the planning process. However, other members might still participate to a lesser degree. The overall plan for Cedar-Riv-

erside and for major neighborhoods within the community has been developed as a series of coordinated systems. Each system is drawn on a map and is described separately in terms of principals, objectives and standards to be achieved.

The social or human resources component, for example, is structured around a set of objectives and their related applications. The objectives generated the development of a comprehensive social framework — which is viewed as an evolving and flexible process.

Utilizing the comprehensive framework and objectives as a direction for planning activity, planning staff, community task forces and consultants have been involved in identifying available resources, delineating planning parameters and developing a prototype for delivery of services. Following the evolution of this comprehensive social framework and system design, planning activities have been directed to a neighborhood scale of development, emphasizing the interrelationships of physical/economic/social designs and demonstrating the impact of community-wide objectives on staged neighborhood development.

Thus the social plan is but a segment of a multi-discipline approach and reflects the systematic process by which the comprehensive C-R plan has been created.

These system plans, then, individually and collectively provide the framework for the detailed design of buildings, streets, open spaces, plazas and other features of the area.

This system approach to area and neighborhood planning has been so successful that it is now being refined and extended to accommodate a variety of plan changes and to provide guidance for the next and future stages of project development. It has been most useful in enabling a clear understanding of each of the many facets of a comprehensive plan and in assuring that the input of each member of the multi-discipline design team is reflected in detailed project design.

James H. Mildes is Supervisor of Planning on the Cedar-Riverside Design Team.

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Young people contemplating architecture as a career possibility need go no further than their public library to do their initial investigation of this exciting design profession. There they will find material written at various levels on all aspects of the field: well illustrated general histories of architecture as well as specific histories of time, place and style, biographies and theories of some of its famous practitioners such as Frank Lloyd Wright and Le Corbusier, architectural projects the novice can undertake and specific career material. The books discussed here will give the reader some idea of what is available not only in architecture but also the closely related profession of city planning.

An excellent introduction to architecture for young people is Mary King's A History of Western Architecture, which traces the development of architectural styles from the pyramids to the 20th Century, stressing the influence of the past on buildings in the United States. Mrs. King conveys the importance of historical, cultural and technological factors in determining styles.

The more ambitious student will enjoy Talbot Hamlin's Architecture Through the Ages, designed for the general reader as well as for the architect and student of architecture, whose aim is "to show that buildings are not isolated objects existing arbitrarily in one or another of the recognizable set 'styles' but rather the inevitable results of the ways of living, governing, worshipping and doing business in practice at the time they were built; for buildings exist to serve the needs of mankind and as the needs change so must the buildings." The author, for many years professor of architecture at Columbia University, presents the history of architecture as the story of civilization, reflecting not only advancing technology, the discovery of new materials and man's practical needs but his feelings and dreams as well. It is an authoritative and readable history from prehistoric times to the present.

Two clear introductory works on American architecture for students in junior and senior high school are Carl Hiller's From Tepees to Towers; A Photographic History of American Architecture and Edwin Hoag's American Houses: Colonial, Classic and Contemporary. The first is a selection of 115 photographs accompanied by brief texts giving "a chronological overview of architecture in the United States from the shelters of the Indians to Buckminster Fuller's geodesic dome." Influences of Old World architecture on New World buildings are depicted as well as major architectural trends and the works of famous architects, including Richardson, Sullivan and Wright.

The author is careful to point out that, although the primary factors governing the nature of human shelter are purpose, climate and materials available, it is the creative impulse that causes buildings to be beautiful as well as functional. Contains an illustrated glossary and bibliography. Hoag concentrates on one area of American architecture — the story of houses, from the varied shelters of the Indians to those of the present, with some speculation on the future, demonstrating how the houses of each period reflect historical events and attitudes of the time and particularly the way of life of the inhabitants.

More difficult reading, but worth the effort, is a work by Lewis Mumford, a brilliant social critic, whose humanistic approach and great knowledge and analytical ability have made him one of the most respected commentators on city planning and architecture. Sticks and Stones; a Study of American Architecture and Civilization is "A discussion of the import of the changes that have come in American architecture and the way it reflects the social and industrial characteristics of each period, from the early New England village to the city skyscraper." A provocative work.

Teen-age readers (and their parents) will find Frank Lloyd Wright: Rebel in Concrete, by Aylesa Forsee, an absorbing introduction to the flamboyant personality, legendary architectural achievements and visionary dreams of one of the world's greatest architects. His emergence as a creative architectural genius is traced from his Wisconsin boyhood and early training through his stormy and sometimes tragic career as teacher and practitioner.

(continued on page 177)
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NORTHWEST ARCHITECT
To Be or Not to Be
(Continued from page 150)

ing is broadened by on-the-job experience which is necessary to relate theory with reality.

Paths of Experience
Traditionally the architectural graduate has joined the staff of an architect's office, gained the experience necessary to become licensed and then considered opening his own office. Today methods of practice are changing. A graduate may still join a large or small architectural firm but he may also choose to work with a building contractor, a design-construct firm, the architectural division of a large industry or corporation, an advocacy planning group, state or federal government, an owner-builder or real estate developer.

If the graduate intends to enter the mainstream of architecture, i.e., to be responsible for designing structures which are an integral part of our environment, he will seek as broad an experience base as possible. Eventually he will wish to become licensed as an architect.

Examination for Licensure
In order to practice architecture, an individual must be licensed because his work directly affects the health, safety and welfare of the public. The practice of architecture as well as use of the term “Architect” are controlled by state laws to allow only qualified persons to engage in the profession.

The various state registration boards require candidates to take an examination covering all aspects of architecture. Eligibility for the exam varies somewhat from state to state: Minnesota presently requires graduation from an accredited school of architecture plus three years of experience with an architect, or 13 years of experience in lieu of the degree.

A uniform examination, prepared by the National Council of Architectural Registration Boards (NCARB), is used in all states. Successful completion of the exam enables the architect to practice only in the examining

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state, although he may become licensed in other states through reciprocity.

For some time the NCARB has been considering a simplified examination procedure. A new exam has been proposed and, when approved and adopted by the state licensing boards, it will consist of two parts. Part I, construction theory and practice, will be an 8-hour qualifying exam for persons without a degree from an accredited school of architecture. Part II, architectural theory and design, will take approximately 10 hours and will cover history, theory, site planning and design aspects. Both exams will be machine graded. In addition to simplifying the examination procedure, the experience requirement would be reduced to one year or two years for six-year or five-year degree holders, respectively. It is expected the new examination procedure will be in use in Minnesota by June 1973.

Completion of the licensing examination permits the individual to practice architecture. State laws require that a building of any magnitude be designed by an architect who "signs the drawings," thereby assuming legal responsibility for the project. Becoming licensed as an architect is the culmination of many years of training and experience and is the professional distinction necessary to continue a creative career.

James I. Lammers is a registered architect with degrees from Iowa State University and Columbia University. He is an Associate of Close Associates, Inc.

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What Is AIA

(Continued from page 158)

The neighborhood growth unit may prove to be the most important concept ever developed by the Institute by becoming the basic building block for the orderly growth of new communities and regrowth of present metropolitan areas. This report has generated considerable debate in political, social and economic circles and establishes the advocacy role of the AIA.

Another example which may serve to illustrate the AIA’s commitment to a habitable environment is the Community Design Center program. Our CDC in Minnesota is one of 83 in the nation, providing communities with opportunities to shape their own environments. The AIA is providing funding to CDC’s (MSA has provided $10,000 to date), which in turn provide architectural expertise to clients and communities who cannot afford to pay for such professional services.

So to answer the question posed in the title of this article, “What Does It Mean: ‘AIA,' it means all of the foregoing. When you see the initials “AIA,” following an architect’s name, it means that he is a member of a far reaching organization devoted to the highest quality of the profession of architecture. Not only is he a registered architect, he also has made a commitment beyond his own interests — a commitment to the betterment of the profession and a commitment to service to the public.

The Minnesota Society of Architects maintains a staff headed by Daniel J. Sheridan as executive director. From its headquarters on the ground floor of the Northwestern National Bank Building in St. Paul it coordinates the myriad activities of its membership.

Through this office liaison between the public and the profession is maintained and it is always happy to assist in any questions and inquiries related to architecture. A multitude of literature is always available and drawings and models are on display.

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(Continued from page 163)

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After analyzing the needs of a complex community, the multi-talented consultant-planning team, in 1969, under the direction of Donald Jacobson, Cedar-Riverside's director of planning and development, illustrated through a model and many sheets of paper the best community design possible, based on the Urban Renewal Goals.

Planning has always proceeded first from an analysis of the needs on a community level, keeping the renewal goals in mind, then the neighborhood level and then the project level. The planning team approach has functioned well in Cedar-Riverside. At least every two or three months the Cedar-Riverside consultants have met to review work in progress and to make further recommendations. By utilizing the specialized talent of each consulting firm, a broader depth of thinking has been brought to focus. This process has been referred to in our office as "challenge and evolvement planning," or "confrontation planning" and, most importantly, it does work well because the architects and planners have been devoted to making the project a success.

In February of 1970 we proposed a first stage project to the Minneapolis Housing and Redevelopment Authority. Preliminary approval was given in April of 1970. That spring a number of people began urging us to consider a New Communities loan guarantee application. A preliminary application was submitted in June and accepted in August of 1970. Final application documents were then prepared and a letter of commitment for a $24,000,000 guarantee was received June 28, 1971. Comprehensive planning and large scale land assembly, which will permit the use of advanced technological systems to protect and enhance the quality of the urban environment, need lots of patient time and money. The New Communities loan guarantee offers us the opportunity for long-term loans at stable market rates. Rebuilding in Cedar-Riverside will occur in a twenty-year staged process, with relocation and demolition occurring only as necessary for construction in order to maintain the social fabric and viability of the existing community.

Cedar Square West, the first stage of development, now underway, incorporates both physical and social planning goals. Most importantly, 117 units of public housing, 552 units of federally subsidized 236 housing, 408 units of middle income housing and 222 units of semi-luxury housing are interconnected and integrated within the same architectural framework and grouped around the beginning of the community's pedestrian plaza mainstreet system, beneath which are four levels of parking. In addition FHA 236 interest subsidized units and 236 unsubsidized units are mixed within the same buildings, which range in height from four to forty stories. There are efficiencies, 1- to 4-bedroom apartments, five unit sizes and a rent range between $50 and $550 per month. Without a unit distribution plan from the management office...
no one will know whether or not his neighbor lives in a subsidized or unsubsidized unit.

A series of plazas and walkways becomes an activity spine to interconnect the entire area. On the plaza are neighborhood facilities which include an elementary school, health service, day care center, meeting rooms, grocery-delicatessen and other commercial service activities. Multiple use of space is being encouraged through primary and secondary use leasing.

A central heating and cooling plant for unsubsidized as well as subsidized units, with a single pollution controlled smoke stack, will service the first neighborhood of 3,900 units.

Careful attention has been given to site planning. With buildings of varied heights and open at the base a feeling of visual openness becomes possible in a high-density development.

The construction site of Cedar Square West was carefully delineated to maintain a very lively and creative commercial and cultural community.

A community revitalization process has been going on simultaneously with the rebuilding. If you've visited Cedar-Riverside recently you'll have noticed that Cedar Avenue, once known as "Snoose Boulevard," has become a center for crafts, the performing arts and innovative social services. There are more performing arts groups in Cedar-Riverside today than exist in any other single location in the entire state. Center Opera, Shakespeare in the Streets, Minnesota Dance Company, Theater in the Round, Dudley Riggs' Brave New Workshop and Guild of the Performing Arts are all performing in Cedar-Riverside in what formerly had been old bars, beer joints, a 1930's type nudie movie house and a factory. In fact, it was our project architect, Ralph Rapson, again who turned what was once Bimbo's Pizza Parlor into the 350-seat Theater in the Round.

Quality craft products are being made and sold in Cedar Avenue stores. In addition, mini-parks have been created out of vacant lots and odd spaces. The Minneapolis Committee on Urban Environment has given design awards to the Cedar-Riverside community for its painted walls, hand-craft shops, theaters and restoration activities.

All of our activity at Cedar-Riverside has shown that the architect has a very important role in the development of a community.

Gloria M. Segal is vice-president of Cedar-Riverside Associates, Inc.; Keith R. Heller is president.
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NORTHWEST ARCHITECT
with attention given to his architectural philosophy and revolutionary concepts and techniques. Includes many illustrations of his famous buildings. Similar in appeal is Corinne Naden's *Frank Lloyd Wright: The Rebel Architect*.

A more advanced and perceptive study of Wright as original creator is Vincent Scully, Jr.'s *Frank Lloyd Wright*, one of a series on famous architects, in which Wright's personal philosophy and the historic influences that shaped the principles governing his design are examined. Through a somewhat technical discussion of specific buildings covering the period from 1902 to 1959, Scully, a well known art historian, presents the evolution of Wright's thought. More than half the book is given to photographs and drawings of the structures described. This is for the reader interested in Wright's ideas and their architectural manifestations; little is mentioned of his private life.

The account of Wright in Peter Blake's *The Master Builders* is more personal and informal. Blake, an architect and editor of the *Architectural Forum*, tells the story of modern architecture through the lives and works of three of its most influential exponents, Wright, Le Corbusier and Mies van der Rohe, recounting with warmth and wit the unique contribution and great impact of each. His obviously tremendous admiration does not prevent him from being objective about their limitations and Blake's own interpretations add a further dimension to a readable book of broad appeal.

The serious student who wishes to delve further into the ideas of the great architects might enjoy a presentation of their philosophies and theories in their own words. Three such works are *Frank Lloyd Wright on Architecture: Selected Writings 1894-1940*, *The Testament of Stone: Themes of Idealism and Indignation from the Writings of Louis Sullivan*; and Le Corbusier's *Towards a New Architecture*.

Having read about architecture, if the aspiring architect would like to try his own hand at building, Forrest Wilson's *Architecture: A Book of Projects for Young Adults*, is a good place to begin. Through the actual construction of domes, columns, trusses, prestressed beams, etc., the reader is led to a comprehension of the principles of "old architecture" and the modifications in methods and materials that helped shape modern architecture. Then, observing that a building can be structurally sound but nevertheless very ugly, Wilson demonstrates the importance of aesthetic as well as structural rules in architecture through projects on "the language of architecture" — space, texture and scale. The 33 projects are accompanied by illustrated instructions for building and testing and require "simple and inexpensive tools and ordinary materials" such as cardboard, glue, toothpicks, string and sugar cubes. An extensive illustrated glossary and bibliography add to the value of this unique and inviting work.

For the reader who suspects that architecture is not quite the glamorous profession it often appears in books and movies, but is not certain precisely what it
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housing developments. Black slag heaps, beautiful buildings destroyed for asphalted parking lots and cities mutilated by highways.

Lewis Mumford, who was introduced above as author of a book on architecture, has written prolifically on the city, including The Urban Prospect, essays on the contemporary city written over a six-year period. "Their main purpose," says Mumford, "was not to expose defects and failures, but to open up happier prospects for urban development" in the hope of reversing the trend of deteriorating cities. Rewarding to the reader who will make the effort to follow this creative thinker.

The so-called population explosion looms as the urban problem of our future, creating and intensifying other problems. What kinds of new cities should be built to accommodate a population that is expected to almost double in the next 30 years, cities that will meet people's housing, educational, transportation, public health and recreational needs? Where should they be located? With the help of photographs, drawings and diagrams, Hal Hellman's The

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City in the World of the Future describes several proposals, some startling, even fantastic, for the future — megastructures, cities under or floating on water, underground cities, domed cities. Even if they never materialize, he reasons that the research done will engender new ideas, possibly solutions, that will help us in our current efforts to renew cities and build new towns. Acknowledgment is made of Minnesota's Experimental City. A book to imagine with, in the knowledge that such dreams may one day be reality.

Although the above books have been grouped for ease of discussion into those dealing generally with architecture and those with planning, it is clear that the two fields are so closely related that anyone interested in one would do well to learn about the other too.

The titles reviewed here represent only a small sampling of the literature written on the subjects of architecture and planning. All of them, plus hundreds of additional works, are available in the collection of the Saint Paul (Minnesota) Public Library. Consult your own library for these and other excellent books on the subject. If any of the books reviewed interest you and are not owned by your library, they may be borrowed on inter-library loan (continued on page 182).
New Products

Ideas Save Time, Save Money

What is an idea worth? In terms of time, it could mean hours and hours of design and conference to achieve just the right effect.

This is especially true in lighting and design assistance is readily available from the custom lighting division of Sterner Lighting (B M D & R Lighting), now located in Winsted, Minn., with the main plant. B M D & R design experts are available to help with lighting design problems as are also members of the staff of Jerry Carnes Associates, who are representatives.

Slides and hundreds of drawings which could be helpful in solving a problem are on file . . . "or we can start from the beginning and design a fixture exactly to suit the application." Mr. Carnes said. "If a client has a special idea we can determine if it is practical from the manufacturing standpoint and can be created into a fixture which will do the job."

Carnes Associates are reached at 7036 Willow Creek Road, Eden Prairie, Minn. 55343.

Alcan Appoints Architectural Sales, Inc.

Alcan Building Products has announced appointment of Architectural Sales of Minnesota, Inc., as a franchised contractor and distributor for Minnesota of its new Alcan Planar Aluminum Ceiling.

The Alcan Ceiling System utilizes aluminum panels of any length which are snapped individually onto metal stringers and require no further fastening, the company said. Removal and replacement are equally easy. A crisp, linear modern appearance is achieved by the use of the panels, which are available in a wide choice of colors. The baked on enamel finish of the panels ensures freedom of color brightness, does not collect moisture and requires virtually no maintenance.

Marvin W. Schenk, president of Architectural Sales, said the new system is currently being installed in Minneapolis Gas Company. He said the new Planar system is especially suited for schools, hospitals, office buildings and other public structures.

Orsanette Blends Make Debut

United States Ceramic Tile Company, Canton, Ohio, which markets its products under the Romany-Spartan® name, is introducing a new line of unglazed patterns for walls and floors called Orsanette Blends.

"Orsanette Blends are a pleasant mixture of new, solid color, natural clay ceramic mosaics with the ever popular Orsan II® textured colors," the company reported. "Five patterns make up the new Orsanette Blends line. Each pattern is designed to coordinate with several of the 19 Romany-Spartan wall tile colors."

"A new Orsanette Blends display panel has been created to introduce the totally new concept. The panel is designed for dealer point-of-purchase, architect and decorator sampling."

An Orsanette Blends sample board can be had by writing United States Ceramic Tile Company, 1375 Raff Road, S. W., Canton, Ohio 44710.

Fenad Introduces Perspective Calculator

A new development in drawing aids has been announced by Fenad Products of Duluth, Minn. It is a slide rule which is unique in that it is a perspective calculator.

"Our perspective slide rule is called the Scale-O-Matic and is a breakthrough for the draftsman, architect, engineer and designer."

Air Structure: Tennis Court

The Forman Schools, Litchfield, Connecticut recently decided to add indoor tennis to its list of athletic activities. A structure designed and manufactured by Cidar Structures Company was chosen to meet all specifications, as well as because of the unique acoustical properties of the Cidar building.

In order to provide a more echo-free environment, the Cedar structure was designed with a network of retaining cables which form the fabric skin of the building in a convoluted shape. This shape, as opposed to a normal, taut air structure, "absorbs" sound waves rather than allowing a high degree of "bounce." In addition the cables relieve tension on the fabric skin and are said to assure longer life.

Information on this and other inflatable air structures is available from Cidar Structures Company, 142 W. 154th St., Dept. Q, South Holland, Ill. 60473.
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What people say about public money is usually negative. Public money comes from taxes, and taxes are too high. Part of the reason is that public money is sometimes mis­spent, or otherwise wasted.

So instances where public money is spent wisely and efficiently are worth noting.

For example, construction of public works in New Jersey and California. Those states require both separate and single contract bids on public construction projects. Comparisons of bid prices show that in at least 85% of the cases, separate bids were lower than single bids.

Clearly, the acceptance of separate contract bids results in wise and efficient expenditure of public money. That's a positive fact.