ideally combined

TSC - Texture-Shape-Color/key ingredients of attractive Borden Brick plus a lot of added service

Borden Brick and Tile Co.
Goldsboro, Durham, Sanford
"Clunk" means this tile is out! An air pocket kept it from producing a clear, "clink" sound and Mid-State's quality control caught it. In fact, every single piece of ceramic tile manufactured by Mid-State is color graded and given this sound test. It's another way Mid-State assures you of a superior product. This concern for quality and dependable service has made Mid-State one of the South's largest producers of ceramic tile. To learn more about Mid-State's beautiful, practical ceramic tile, see our catalog in Sweet's or write for your free copy today.

**mid-state tile co.**

Box 627 • LEXINGTON, N. C. • 246-5915

Member of Tile Council of America, Inc.
The beauty of marble...the durability of concrete

Terrazzo throughout for a new high school

In the new Shelby High School, the architect chose terrazzo, not only for high-traffic areas, but for attractive, low-upkeep floors throughout the entire building. The school was built at a cost of $9.25 per square foot for the building—and this included terrazzo in the classrooms.

Few flooring materials have the history of terrazzo. Few can match its beauty. Terrazzo floors laid centuries ago still serve as dramatic tests of time and use. Terrazzo's long life and low maintenance make it a highly desirable flooring material for today's structures.

More and more, architects are choosing terrazzo for its esthetic advantages and remarkable practicality in structures of every size and type.

Portland Cement Association
1508 Willow Lawn Drive, Richmond, Va. 23230

An organization to improve and extend the uses of portland cement and concrete, made possible by the financial support of most competing cement manufacturers in the United States and Canada.
COMMITTEE ON PUBLICATION

J. B. Wiggins, AIA, Chairman
R. Holland Brady, AIA
C. F. Brantley, AIA
James L. Brandt, AIA
John T. Caldwell, AIA
George W. Colvin, Jr., AIA
J. Stanley Fishel, AIA
Edwin H. Harris, Jr., AIA
Robert C. Huling, AIA
S. Harold James, AIA
Gene W. Jones, AIA
W. Stewart Rogers, AIA
B. Atwood Skinner, Jr., AIA
Robert W. Carr, AIA
Richard L. Rice, AIA
Ralph W. Crump, AIA
S. Scott Creebe, Jr., AIA
Thomas T. Hayes, Jr., AIA
Thomas P. Turner, Jr., AIA
Joseph N. Boaz, AIA
Leslie N. Boney, Jr., AIA
Bremner C. Harrell, AIA
J. Norman Pease, Jr., AIA
Louis Hall, AIA
R. Mayne Albright
Betty Silver

In Charge of This Issue
J. B. Wiggins

NORTH CAROLINA CHAPTER
THE
AMERICAN INSTITUTE OF
ARCHITECTS

CONTENTS

The Cultural Revolution
by Pietro Belluschi, FAIA .................. 6

Chemistry Building, Duke University ...... 8

The American City of Tomorrow
by Morris Ketchum, FAIA .................. 12

NCAIA Presents First Craftsmanship Award 14

The Architect's Seal
by R. Mayne Albright ...................... 15

News Items .................................. 18

Factories Yield Unexpected Joy,
from Wall Street Journal .................... 20

Calendar of Events ......................... 22

Index to Advertisers ....................... 22

North Carolina Architect is published by the North Carolina Chapter of The American Institute of Architects, Mrs. Betty W. Silver, Executive Secretary, 115 W. Morgan Street, Raleigh, North Carolina 27601. Advertising rates on request.


Opinions expressed by contributors are not necessarily those of the North Carolina Chapter of the American Institute of Architects.

Lithographed by Theo. Davis Sons, Inc., Zebulon, N. C.
THE CULTURAL REVOLUTION

BY

PIETRO BELLUSCHI, FAIA; DEAN
SCHOOL OF ARCHITECTURE AND PLANNING
M. I. T.

In the past we have been accused often, and for good reasons, of being a materialistic nation, more interested in expanding commerce than in promoting culture. It is now becoming evident that our national goals, as recently expressed, are no longer of mere material abundance but of spiritual fulfillment. One is reminded of John Quincy Adams’ often quoted words. “I must study politics that my sons may have the liberty to study mathematics and philosophy. My sons ought to study mathematics and philosophy, geography, natural history, and naval architecture, navigation, commerce, and agriculture in order to give their children a right to study painting, poetry, music, and architecture.” From what is happening around us, we may be induced to believe that the time has now arrived for our affluent society to be concerned without guilt with cultural manifestations so that life may acquire a more satisfying meaning for all people.

Many words have been expended on the question of Art in an Age of Technology or of Humanities versus the Sciences. It is only true that the extent of human knowledge has now become so vast that specialists of various kinds have difficulty communicating effectively with each other. But we are finding that every new discovery in science has subtle and pervasive implications to human beings; love, hate, fear, pity, compassion are the results not only of what we are but also of what we learn, and our passions in turn are the sources and stimuli of the arts. It is through the arts that man is best able to protect as well as to express with eloquence his humanity, which is intensified and not weakened by his widening knowledge. The visual arts, literature, and music until recently offered the main channels for human expression. Now science, in its own right and by a determined and inspired search into the mysteries of life, has also become a large outlet for the finest human aspirations. We may say that the artist and the scientist in our modern world are equally committed to the search for truth, even knowing that neither will ever possess the whole of it. Each in his own way is trying to unveil the mystery which fills our universe—the scientist from without, the artist from within. We are beginning to realize that imagination and vision pervade the creative life of the scientist no less than that of the artist and in a larger sense illuminate the knowledge of the modern cultured man and give him the freedom and independence which only true knowledge permits. Architecture is a particularly good example of this confluence of knowledge and vision, an integrating activity full of promise.

Since the end of the War the pursuit of knowledge has become the prime goal of all nations, old and new. There is a burning desire in men everywhere to know first, then to understand, and finally to express in many ways their over-riding humanity. In our academic world, we soon discover that the learning of facts is only the beginning of an education; it evolves and becomes meaningful only through a continuous challenging of the student’s mind to go deeper and to gain an understanding of himself and of his role in life. It is then that the acquisition of insight becomes a lifelong habit. To describe this nourishing of the spirit, which goes beyond mere knowledge, as an individual and collective habit, we may use the word “culture.”

Culture, in its best meaning and in the context of our age, is a symbol of the importance of man, a measure of his worth at all levels of action; it concerns itself with lasting values; it teaches how to make technology not an end in itself but a great liberating force, which if wisely applied can enhance and enrich rather than demean man’s way of life. Unfortunately, our modern institutions seem to be organized so that the average man has a very difficult time acquiring the kind of culture which I have described. People are made to move and act in great uniform patterns; mass media of communications consecrate conformity, and everywhere men are urged to adjust and to comply. It takes determination and courage to dissent, to stand with one’s own beliefs against the current, to find oneself; and the price is at times prohibitive.

Culture may be promoted under any political system; but we like to believe that it can reach its fullest flowering only in a climate of freedom, where a sense of adventure is allowed to accompany each individual creative act. It is by probing into new
fields, into new meanings by artists and scientists, by searching for new answers to old mysteries, by the willingness to try out new ways, even at the risk of failure, that culture manifests itself.

I have also come to believe that the goal of Art in all its expressions is not so much to produce new styles or to establish merely defensible or even beautiful solutions but to express with free, uncompromising, and passionate intensity those ideas which burn in the heart and mind of even one single human being, who thereby, by his act, becomes the vehicle and symbol of all humanity. A work thus conceived will have its own brilliancy of meaning and the power to convince and to endure. One may also add that it will not be armaments or cold or hot wars that will save and renew the human community but the heightening and releasing of its creative powers, the great potential for good which resides in the human heart.

All creative men have almost always been non-conformists, at least in their fields; and in this sense, they are the interpreters of any cultural evolution. They are the ones who usually start out in life with more than a full book of pat answers; they have the courage to explore the world as individuals with the purpose of distinguishing truth on their own terms and establishing values in the context of their unique potential. The acquisition of culture is indeed an aristocratic venture—yet remembering that non-conformism itself is not just a beatnik flouting of conventions but an earned uniqueness derived from an independent, serious, even passionate view of the world and of life.

Our definition of culture as an adventure of the spirit is different from the Victorian idea; it is more dynamic and gives greater promise because it does not exclude science or the total experience of living. It may have its roots in the past, but it blossoms in the present; and being creative, it makes the present the most exciting time in which to live. Recent advances in science have promoted new freedoms and new attitudes in our esthetics as well as in other fields. Modern physics for instance has caused us to be no longer sure that reality is what we once thought—ordered and orderly. Similarly, as modern human beings, we are no longer as sure as were our forefathers that we can relate ourselves to an ultimate order outside our existence. Huston Smith describes modern reality as an ellipse in which man in his entirety, his purposes, his feelings, as well as his intellect stands as one focus in balance and tension with its complementing focus—the cosmos in which his life is set and against which his destiny must be enacted.

We shall not forget that Art in all ages of history has been a mirror of the human condition of its time. Our age is no exception: in his adventurous path, the artist in our day shares with the scientist the great and exhilarating feeling of continuous discovery. Their adventures seem to have no end; they are finding new aspects of the cosmos and with them new expressions to witness their deep concern as human beings. As such, they are forging new images, discovering new meanings, finally searching for their own revelation of the inner harmony of the universe.

Many centuries ago, St. Thomas Aquinas reminded us that beauty implies delight of the senses, but there cannot be real or lasting beauty unless the mind also rejoices, which it does in reason as well as in discovery. It follows that the higher the knowledge of culture of the individual, the greater his perception of beauty becomes or can become. And we are struck by the present surging interest in cultural manifestations, in the lively seeking of human values, of those values which are the fruits of individual efforts, of individual concern and commitments, the power of which it is impossible to overestimate because it gives meaning to the inner life of man—a meaning which sustains and reassures him through the inflictions which our large political and social institutions tend to impose on him as the price of material survival.
CHEMISTRY BUILDING
DUKE UNIVERSITY
durham
architects-engineers
J. N. PEASE ASSOCIATES
charlotte
associates:
Henry D. Mayfield, Jr., University Architect
Caudil, Rowlett & Scott, Houston, Texas

This building, now in the planning stages, will house both teaching and research facilities for the Chemistry Department at Duke University. It will contain approximately 146,000 sq. ft. of space divided into three floors and a basement. Construction cost will run in the neighborhood of $4,500,000. The two upper floors will be devoted to classrooms and research facilities. The first floor will contain an auditorium, a small meeting room, Library, Classrooms and Administrative spaces, in addition to a large sunken entrance Lobby at the center. The structure will consist of long span precast concrete “tees” and a poured-in-place concrete frame. These long spans of 60’ will provide column free, flexible laboratory space that can be expanded or subdivided as needed. Special service chases are provided between these long spans for piping and other equipment for each Laboratory.

For expansion in the future, a vertical tower will be added to one side of the horizontal building. This tower will contain research labs and facilities that are to be housed now on the third floor of the new Chemistry Building. The relocation of these facilities later on will add a good amount of teaching space for future requirements.

A major effort has been made to integrate this building with the campus as a whole, and emphasis has been put upon the use of materials that blend primarily with the Gothic buildings that dominate the campus.

The site is located between Duke’s “Red Brick Campus” and the “Gothic Campus” and drops about 40’ from one side to the other. It is heavily wooded, with hardwoods, along the major street side and large pines on the remainder of the site.
preliminary sketches
science drive elevation

first floor plan

typical floor plan

longitudinal section
rendering of proposed building
THE AMERICAN CITY OF TOMORROW

Just a few years ago, the American Institute of Architects held one of its most memorable conventions in the City of Philadelphia. The late, great Le Corbusier, foremost architect and city planner of our day, received the Institute's highest honor, the Gold Medal. That and the first performance of the Philadelphia architectural symphony under conductor Edward Bacon's baton were the high points of the convention.

None of us who were there will soon forget the lighted stage with the huge outlined plan of the city as background, the way in which each member of the architectural team filled in his own segment of the city plan, and Ed Bacon's running commentary as all the sparkling details of existing or proposed developments sprang into life.

Not since Clarence Stein received the Institute's highest honor for his now classic community plan for Radburn, New Jersey, had the eyes of our profession been so firmly drawn to the total scope of environmental architecture.

It created a new and growing awareness of the fact that the architectural profession had never lost its skill in urban design and that there had never been more need for that skill. All over America our cities were deteriorating, our sprawling suburbs were eating up the landscape, our highways were lined with visual eyesores. It was high time to reshape and rebuild the man-made urban framework we live in.

The environmental pattern is essentially the same in the great majority of our towns and cities. The highway approaches are befouled by billboards, garish store fronts, utility poles, overhead wires, junk yards and blighted business buildings. That part of suburbia which is available to middle income residents sprawls in bulldozed nakedness. Badly designed houses run across flatland and hills in identical checkerboard patterns. The trees are gone. God's finest handiwork is replaced by a skyline of overhead wires. The suburban shopping centers stand in islands of asphalt. A gray area of dilapidated small buildings ring the urban core. Downtown is usually congested, rundown, and may already have been dissected by a

An Address
for the Annual Convention of the Pennsylvania Society of Architects at Hershey, Pennsylvania, on October 21, 1965

Morris Ketchum, Jr., FAIA, President
The American Institute of Architects

NORTH CAROLINA ARCHITECT
badly planned highway. The water front, potentially a place for recreation, is littered with junk and industrial debris. In all things, big and small, there is a blindness to the most fundamental and rudimentary principles of good architectural planning.

The basic force that has scrambled our environment is the uncontrolled use of the automobile. It has swamped downtown streets built for the horse and buggy, blighted urban residential areas with noise, confusion, and poisoned air, driven the city's inhabitants and the retail trade which serves them into suburbia, depleted central city tax rolls, and created all the honky-tonk squalor which lines our highways. The combined automobile explosion and population explosion threaten to overwhelm us.

We, therefore, face one of the great crises in the history of our nation—the fate of the American city and, in a larger sense, the fate of our urban society. It may be one of the most dangerous crises of our democracy because we may not know, clearly and at once, whether we have won or lost. The enemy will not always be visible or recognizable, and our struggle will seldom be attended by martial music and patriotic exhortations.

Within the next few years, I believe, the die will be cast. We will see a great renaissance in the making of livable and beautiful cities, or the city will simply diffuse and dissolve into densely built up metropolitan regions without form, amenity or any of the grace and beauty you might expect from a mature and responsible people.

If the conception of America the Beautiful, in all its majesty, goes down the drain, I submit there will be four reasons:

First, lack of public understanding that things can be better than they are;

Second, the continuing misdirection of our burgeoning technology;

Third, the pressure of vested interest to subordinate the community interest to individual advantage; and fourth, the failure of the architectural profession to demonstrate, through example and expert practice, what the community can aspire to.

All four of these factors are serious and none lends itself to any easy solution. Any one of the four can lead to a general failure. Yet I firmly believe that we will not sink into the abyss of irreversible ugliness which will surely be the result of further apathy, ignorance, and unenlightened self-interest. This is not a visionary and unrealistic hope, I submit, because—and it is important that we all recognize this—the ugliness and disorder from which we suffer is fundamentally the ugliness of affluence, the disorder of misused wealth. It is not the product of poverty. Only a rich people could be so wasteful of their land, so ready to obliterate their natural resources, so capable of flooding downtown streets with cars, tearing up historic neighborhoods to build freeways, littering the roadways with signs, and filling the air with wires.

I believe that we will win this fight, hard as it may be. I believe this, first of all, because it is visibly and morally right, and I do not think our people are either blind or stupid. The public awakening has already begun. The national administration is demonstrating that this has become a politically potent issue. Beautification, the recent White House conference on Natural Beauty, the creation of a new Department of Housing and Urban Development, and the passage of the rural highway bill may not be giant steps toward the reversal of the tide, but they are significant steps. In the halls of government, we have come a very long way since a member of the Senate spoke derisively of "ass-thetics."

Second, there is great hope to be found in the results of a survey of current progress in urban rescue and renewal initiated last January by the American Institute of Architects. Across the country, in every one of our seventeen geographical regions, we have sought out and recognized the best achievements in community architecture.

Our awards of a Citation for Excellence in Community Architecture don't lionize the architect, although they acknowledge the part he has played in city development. Instead, they commend the city and its citizens, as has been done tonight, for their Continued on page 16
A highlight of the Annual Meeting of the North Carolina Chapter AIA held in Raleigh at the Sir Walter Hotel, January 20, 21 and 22, was the presentation of the first annual Craftsmanship Award to Robert Franklin Jenkins of Wilson. Mr. Jenkins was honored at Luncheon on Friday, January 21, when he was presented a certificate on behalf of the Chapter for his outstanding ability in woodworking. Pictured are some fine examples of work completed by this able craftsman. Mr. Jenkins is an employee of Stephenson Millwork Company, Incorporated of Wilson, North Carolina.
"The Architect's Seal is the symbol of his profession, the official certification of his professional qualifications, and his personal identification and warranty of his work."—N. C. BOARD OF ARCHITECTURE

The illegal practice of architecture by draftsmen, builders and others, and the evasion of laws designed to safeguard the public from such illegal practice, are often made possible only through the misuse of the seal of some registered architect.

The North Carolina Board of Architecture in a recent investigation and Hearing found that a licensee was permitting his name and seal to appear on plans prepared by others although "the owners were not clients of the licensee but of the draftsmen, and the draftsmen were not employees of the licensee but were working independently and in violation of the Architectural Practice Act, and evading said Act by associating the licensee primarily for the purpose of obtaining his seal in order to obtain building permits." The following quotation is from the Order of the Board on October 22, 1965:

"The Architect's Seal is the symbol of his profession, the official certification of his professional qualifications, and his personal identification and warranty of his work.

"Misuse of the Seal by Architects, or use of the Seal by non-architects, tends to nullify all the laws of the State and Regulations of the Board pertaining to the requirements for education, training, examination and certification of individual architects; supervision of the profession; penalties for unauthorized practice; and assurance to the public of professional competency and care 'in order to safeguard life, health and property', as provided in G. S. 83.

"It follows that if the Seal issued by this Board under authority of G. S. 83-8 is misused, it should be withdrawn by this Board under authority by G. S. 83-9.

"Rules and Regulations of the Board, made pursuant to G. S. 83-4 and forwarded to every registered Architect, provide:

IV 2. a. It shall be deemed dishonest practice for any Architect to stamp the Drawings of another, or to stamp any Drawings other than those made at his own office or under his personal supervision.

"b. All plans must be signed and/or sealed by the author or authors thereof and no other persons shall sign them as authors or otherwise assume authorship thereof. 'Authors' is defined as those in responsible charge of the preparation of plans which are made by them personally or under their immediate supervision.

"VII A. An Architect shall not furnish limited services for the purpose of enabling a client to evade the public health and safety requirements of G. S. 83, or the building permit requirements of G. S. 160-126.

"B. When such limited services are furnished the drawings and specifications must clearly indicate what portions of the work are included and what portions excluded.

"In the case now before the Board the evidence points unerringly to misuse of his seal by the licensee in numerous and continuing instances. Such misuse as shown in the above Findings of Fact 2 through 6 constitutes, in the opinion of this Board, gross unprofessional conduct.

"Therefore, the Board, having heard the evidence and reviewed the record, now, by unanimous action, finds the licensee, ____________, guilty of knowing and willful misuse of his name and Architect's Seal, in violation of the laws of the State and of the Rules of this Board, such actions amounting to dishonest practice, unprofessional conduct and/or incompetence.

"Based upon the foregoing Findings and Conclusions, the Board enters the following

ORDER

IT IS, THEREFORE, ORDERED that the certificate to practice architecture in North Carolina issued to ____________, Registration Number ______, be and the same is hereby revoked and that he is forbidden, after date of service of this Order, to practice architecture or to use the Architect's Seal or the title 'Architect'.

(This Order of Revocation was later suspended because of certain mitigating circumstances and with stipulated requirements for strict compliance and a five-year probationary period.)
efforts in creating a better background for urban living. Each one of those seventeen awards, whether they represent approved plans for the future, projects under construction, or completed efforts, add up in total to a vision of the city as it can be if the fight is won.

At the same time, they demonstrate the progress of our profession in the concepts and techniques of environmental architecture. Large firms and small, recognized or unrecognized for ability in urban design, have worked with the allied design professions to help the enlightened leaders of business, industry and government to stem the tide of community ugliness.

I will not read off these awards in the fashion of a grocery list, but I would like to give you some idea of their scope and how they relate to each other to create a contemporary image of the livable city, starting with the urban core and reaching out into the countryside.

First of all, the program and solution for the central core of Oklahoma City are ideally adapted to the demands of modern living, business, trade, culture and recreation—in short, to all the mixed uses which keep our cities alive and moving, by day or night. Within a mile square area, bounded by a traffic loop with perimeter parking facilities, are an expanded financial district, a revitalized area for retail trade centered on a delightful glazed roof galleria, a hotel center and convention hall, an indigenous form of Copenhagen's Tivoli Gardens and a residential quarter characterized by low-rise town houses and high-rise apartment towers. The buildings, plazas, pedestrian walkways and green spaces which serve these human activities will create a handsome city. Its beauty will stem from the fact that it is genuinely habitable and answerable to man's needs.

In a similar approach, the plan for downtown Salt Lake City provides for the separation and control of automobile and pedestrian traffic, for multiple activities, and for the eradication of downtown's visual eyesores.

In Canton, Ohio and Eugene, Oregon we have splendid examples of how well-designed open plazas can enliven the heart of a small city. Canton Plaza provides for wintertime skating, summertime outdoor dining, and year-round cultural exhibitions. The Eugene Civic Center's public buildings surround well-planted pedestrian plazas served by streets and service alleys remodeled for foot traffic connecting plazas and perimeter parking areas. Both projects are first phases in ambitious revitalization programs for their respective cities.

Rochester, New York, boasts of a covered, air-conditioned central project—Midtown Plaza. Around it is a multi-level complex encompassing underground parking, a two-story retail shopping center and an office-hotel-restaurant tower.

Fresno, California and Urbana, Illinois both prove that pedestrian streets, open or closed, are valuable downtown assets. Fresno's streets are open, landscaped pedestrian malls, replete with benches, fountains, flowers, sculpture, trees, and playgrounds.
Urbana's closed air-conditioned pedestrian walkways, courts, and arcades, equipped with similar amenities, serve a nine square block segment of the central city.

Paseo del Rio in San Antonio, Texas and the water front of Jacksonville, Florida give striking evidence of what can be done with rivers that wind through the city. In San Antonio, aesthetic quality was given to the tiny river by walkways and bridges, restaurants and an open-air theater along the river bank. This was a WPA project in the thirties. Now, the citizens of the city have voted a bond issue to further improve and enhance this delightful waterway. In Jacksonville, the city fathers have succeeded in shifting the downtown center of gravity to the banks of the river. Government and civic buildings are combined with commercial structures, a park, and a marina to create an urban center of growing distinction and beauty.

The ingeniously designed new low-rental development Village West in Louisville, Kentucky, the increasingly elegant Southwest Redevelopment Area of Washington, D. C., and the convincing reconciliation of old and new in Society Hill, Philadelphia, are proof that gracious and comfortable urban living are not a thing of the past. Charleston, South Carolina's historic preservation confirms the fact that the historic heritage of the past can be a living part of the present.

In Minneapolis, the Gateway Center, provides a new, up-to-date city core as the result of a long and successful campaign to bring housing, office buildings, cultural facilities, and green areas into a once blighted site.

Constitution Plaza in Hartford, Connecticut is the country's most successful example of what the "platform cities" of the future will be like. A huge, landscaped pedestrian plaza, set with business buildings, forms the platform. Underneath are the urban utility lines which are usually buried and inaccessible and a large automobile parking garage.

Figures are already available to prove that beauty is an integral part of good business. Before rebuilding, the blighted district now occupied by Constitution Plaza returned $90,000 a year in taxes to the city. The same area now returns $1,456,000 per year, without taking into account the huge revitalization of the surrounding area which this project has sparked.

Beyond the city core, the block-wide green belt of parks and recreational facilities serving both downtown and suburbs proposed in the redevelopment plan of Shreveport, Louisiana, replaces the usual run-down gray area which surrounds the heart of the most cities.

Finally, every element of business, trade, culture, recreation, living, traffic and a balanced transportation system is splendidly integrated in the 200 square mile plan for the future development of Detroit, Michigan.

Out of these seventeen regional awards comes a new formula for the automobile. First of all, build the core of the city as a platform for pedestrians and a shelter for automobiles; second, ring this downtown area with a recreational greenbelt or water front and an inner loop roadway; third, build suburbs that are separate satellite cities planned with similar community centers built on natural terrain; and fourth, connect city, suburbs, and countryside with an integrated highway network for private vehicles and public transportation. This formula may well be the architectural profession's answer for the American city of tomorrow.

We are going to win the right for livable cities because it would be unthinkable to lose. Failure would rob our profession of its meaning and urban life of its efficiency and delight. Failure would be an admission that, in the twentieth century, the American character, buttressed by wealth, political stability, and mechanical ingenuity, was unequal to the task of creating a decent living environment for its people. It would be an admission that democracy could not, after all, produce an urban architecture worthy of the name.

It has been said that the values and accomplishments of any age can be measured by the quality of the architecture it leaves behind. Another way of saying this is that people get the kind of urban life they deserve. But if they never have a chance to know what city life can be like, then we cannot justly blame them for spending their lives in drab and ugly surroundings.

If, after experiencing urban beauty and stimulation, they reject it at the polls and elect to ride through the neon jungle eating chicken-in-a-basket, we can say they got the ugly cities they deserve. But not until that day. It is our mission to give them the opportunity to make an informed choice.

For myself, I have no doubt what it will be.

RENFROW DISTRIBUTORS...

Ceramic Tile Specialists

Complete line of SUntile products
Suntile • Ceratile Marble • Spivak Ceratile Designs
Horizon Tile Colors • Etruscan Tile • Sun Spray
Design Service • Adhesives & Grouting Compounds

RENFROW DISTRIBUTING COMPANY
1822 Sunnydale Ave., Charlotte, N. C. Phone ED 4-6811

JANUARY 1966 17
AMERICAN EXHIBIT AT MONTREAL FAIR

Six major themes will highlight the "Creative America" exhibit at the United States Pavilion at the 1967 Canadian World Exhibition in Montreal.

The exhibits will illustrate notable American accomplishments and breakthroughs in the arts, space and technology and will be housed in a three-quarter sphere 250 feet in diameter and 200 feet tall. The pavilion itself is a lightweight metal space frame with a transparent surface.

From the inside, daytime visitors will be able to see the outside and landscape clearly while from the outside the view will be a mosaic of clear, tinted, shaded and reflecting materials. At night, interior lighting will give the Pavilion a uniform golden glow.

The six exhibits are:
1. Lunar Exhibit.
2. Fine Arts Exhibit.
5. Creative America Film.
6. Special Events Theater.

The Pavilion is scheduled to open April 28, 1967 and to close October 27 of that year.

NEW ARCHITECTURAL PARTNERSHIP ANNOUNCED

Jean G. Surratt, AIA, Ronald L. Smith, AIA, and Don E. Abernathy, AIA announce the formation of a partnership for the practice of architecture. The firm's name is Jean G. Surratt and Associates and will be located at 308 East Fifth Street, Charlotte, North Carolina. Mr. Surratt has been practicing from this office for some time. Mr. Smith has been associated with the firm for the past four years. Mr. Abernathy returned to the firm in 1965 after an association with Clemmer and Horton Associates of Hickory. The firm with its staff is retained on a full time basis by Belk Stores Services, Inc.

CAROLYNAS BRANCH
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

Urges All Architects To:

1. Use the RETAINED PERCENTAGE procedure recommended by the American Institute of Architects, which states:
   "Encouraging an expansion to private works, wherever possible, of such retained percentage procedures as now prevail on federal public works,
   "Such retained percentage would be at the rate of 10% until 50% of the job is completed, after which there shall be no additional retainage, provided that the work has proceeded to the satisfaction of the architect and/or the owner."

2. Use the 1963 Edition of AIA General Conditions of Contract (AIA Doc. 201) on future building construction projects so that Certificate of Substantial Completion (AIA Doc. G-704) may be made a part of the contract documents.

   The use of the Certificate of Substantial Completion should expedite completion of projects.
A native of Boston and graduate of the MIT School of Architecture, Spreiregen was a Fulbright Scholar in Italy in 1954-55; worked in Sweden, Italy, New York, Boston, San Francisco, Washington. Projects include Government Center, Boston; Golden Gateway, San Francisco; Downtown Washington, D.C. He is author of “Urban Design: The Architecture of Towns and Cities.”

From 1961 to 1964, Director of Planning and Design for the Downtown Waterfront-Faneuil Hall Renewal Project for the Greater Boston Chamber of Commerce and the Boston Redevelopment Authority. The project comprises 125 acres of downtown land adjacent to the financial district and centered around Boston's historic waterfront area, where new construction of office buildings, hotel, residential buildings, aquarium, and parks and restaurants is about to begin. Since July 1964, Principal and Director of the architectural-planning firm called PARD TEAM, an organization engaged in Planning, Architecture, Research and Design.

An architectural graduate of the University of Notre Dame, Gaio has worked for three firms: The Perkins and Will Partnership, Washington, D.C.; Leo A. Daly Company, Omaha, Neb.; and Spangler, Beall, Salogga & Bradley, Decatur, Ill. While a student at Notre Dame he was national president of the Association of Student Chapters of AIA.
A Thing of Beauty . . .
Handsome Factories
Yield Unexpected Joy

By Steven M. Lovelady
Staff Reporter of The Wall Street Journal

CHICAGO—The Nineteenth Century ugly school of factory design is finally dying out.

With a nudge from Lady Bird Johnson and a tug from local communities, more and more companies now are considering aesthetics along with utility when they build plants. The results are surprising, both on the outside and inside of the factories.

On the outside, witness these examples. A handsome brass-foundry near here that is often mistaken for a research lab. A sprawling $400 million steel mill on the Indiana shore of Lake Michigan that has the trappings of a college campus. And a steel-strapping plant in a posh suburb here that is so good-looking its wealthy neighbors want it to expand into an adjoining area to prevent a developer from building houses priced lower than the $50,000-to-$80,000 neighborhood norm.

On the inside, consider these results. In the pretty plants, labor productivity is above average, absenteeism is down and workers with hard-to-find skills are more easily recruited, manufacturers claim.

45,000 Pounds of Grass Seeds

Equally important, the handsome factories build good community relations. Bethlehem Steel Corp., whose 36-building complex is nearing completion on a 3,300-acre site in Indiana, says "there's no doubt" that the handsome design and tasteful landscaping "helped overcome objections from conservationists and nature lovers who opposed our building a steel plant here in the dunes." Bethlehem landscapers have planted 575 trees and bushes, spread 2.5 million cubic yards of peat and sown 42,500 pounds of grass seed around the buildings, which are painted grass green, sand beige and dark brown to blend with the terrain.

Landscaping also serves a utilitarian purpose, proving Victor Hugo's sentiment that "The beautiful is as useful as the useful. More so, perhaps." Bethlehem Steel, for instance, figures the 3,100 acres of grass prevent fine sand from the surrounding dunes from blowing into buildings and damaging precision gear.

At Illinois Tool Works, Inc., the kidney-shaped ponds at two of the Chicago-area plants serve as
reservoirs from which the company pumps water to cool molding machinery. And at Deere & Co.’s striking new headquarters in Moline, Ill., the reflecting pool is an integral part of the air conditioning system.

Costs of landscaping vary widely, but most manufacturers say it generally runs from 1% to 3% of total construction outlay. Illinois Tool spent $34,000 landscaping its $1.4 million plant in Des Plaines.

**Plum Trees & Turret Lathes**

Riverside Cement Co. maintains that after it attractively landscaped its plant at Victorville, Calif., absenteeism and employe turnover became “significantly lower.” Located in the Mojave Desert, the plant is surrounded with $150,000 of plum, olive, Chinese elm and peach trees and colorful gardens of snapdragons, daisies, poppies and marigolds. The company was so impressed with the results that it set aside $200,000 for landscaping when it recently built a new plant near Riverside, Calif.

Signode Corp., which built a cheerful plant on 60 grassy acres in Glenview, Ill., says the design has helped it obtain hard-to-get workers. “Recently we were able to hire two turret lathe operators who said they came here because the plant’s appearance indicated concern on management’s part for their welfare,” says plant superintendent Hobart Young. Wealthy neighbors at first opposed the plant, but “today, Glenview loves us,” he says. Signode, in fact, is the company neighbors want to expand to keep out housing developments.

There’s no question that prettier factories are the trend. Factory Magazine, which runs an annual contest to pick the nation’s top 10 new plants on the basis of beauty and efficiency, says it had 1,500 entries this year, up from 940 in 1960 and 580 in 1955. The magazine says the prettiest of the 1,500 combine “progressive ideas with practical ideas” and feature “lower maintenance costs, handling ease in production, communications speed, utilities control and employe efficiency.”

Torwald Torgensen, chief architect for Container Corp. of America, agrees that the most attractive plant is usually the most severely functional. What’s more, he adds, good architecture “absolutely and unequivocally doesn’t cost more” than the run-of-the-mill brand. In addition, he steadfastly maintains that good architecture leads to increased productivity.

With these facts in hand, and with the First Lady’s all-out campaign to beautify the countryside, the trend toward better looking plants seems sure to continue. At the moment, though, there still are enough of those monstrous old ugly factories around to make a handsome one stand out even more. Sloan Valve Co., for instance says its foundry in West Chicago is often mistaken for a research lab, “a distinction we share with few if any other foundries.”
Calendar of Events

January 27: Greensboro Registered Architects, Dino's Restaurant, 6:30 P.M., Leon McMinn, AIA, President

February 2: Charlotte Section, N. C. Chapter AIA, Stork Restaurant, Independence Blvd., 12:30 P.M., Thomas P. Turner, Jr., AIA, President

February 2: Durham Council of Architects, Jack Tar Hotel, James A. Ward, AIA, President

February 3: Raleigh Council of Architects, YMCA, 12:15-1:30 P.M., C. Frank Branan, AIA, President

February 15: Winston-Salem Council of Architects, Reynolds Building Restaurant, 12:00 Noon, James Clyde Williams, President

NCAIA WINTER MEETING
SIR WALTER HOTEL, RALEIGH
JANUARY 20, 21, 22

Index to Advertisers

Acoustics, Inc. .................................................. 20
Associated General Contractors .............................. 18
Borden Brick & Tile Co. ........................................ 2
Brick & Tile Service, Inc. ..................................... 23
Delph Hardware & Specialty Co. ............................ 16
McDevitt & Street Co. ......................................... 21
Ezra Meir & Assoc. ............................................. 21
Mid-State Tile Co. ................................................ 3
Moland-Drysdale Co. .......................................... 21
Portland Cement Association ................................. 4
Producers' Council, Inc. ..................................... 22
Renfrow Distributing Co. ..................................... 17
Southern Elevator Co. .......................................... 16
J. D. Wilkins Co. ............................................... 18
Zonolite .......................................................... 20

CAROLINA'S CHAPTER
THE PRODUCERS' COUNCIL, INC.

Aluminum Company of America
Amarile Corp.
American Air Filter Corp.
Armstrong Cork Company
Barber-Coleman Company
Caloric Appliance Corp.
Cupples Products Corp.
Duke Power Co.
Dwyer Products Corp.
Fenestra, Incorporated
Formlca Corp.
Georgia-Pacific Corp.
Great Lakes Carbon Corp.
E. F. Hauserman Company
Hough Manufacturing Co.
Inland Steel Products Company
Johns-Manville Sales Corporation
Kawneer Company
Kentile, Incorporated
Koppers Company
LCN Closers, Inc.
Libbey-Owens-Ford Glass Company

Jack Gill
James R. Carter
Otto Overcash
Ron Parkinson
S. Edward Jordan
Maxson Belts Co.
J. R. Renfrow, Jr.
Edwin C. Boyette & Son, Inc.
J. G. McCaschen
Clarke Distributing Co.
Southern Engineering Company
Faison Kuester
James C. Chastain, Jr.
Bob Ross
Robert C. Therrel
Ed Smith
Connor B. Stroup
Wm. A. Lee, Jr.
Robt. W. Aiken
Everett H. Bolte
George Esslinger
L. E. "Woody" Atkins, Jr.
Robert C. Baintbridge

Mable-Bell Schokbeton Corp.
Benjamin Moore & Co.
The Mosaic Tile Co.
Natco Corporation
Natco Corp.
National Concrete Masonry Assn.
National Gypsum Company
New Castle Products, Inc.
Northrop Architectural Systems
Otis Elevator Company
Owens-Corning Fiberglass Corporation
Pittsburgh Plate Glass Company
H. H. Robertson Company
The Ruberoid Company
Sargent and Company
Stanley Hardware
Stanley Magic Doors
Steelcraft Mfg. Co.
United States Plywood Corporation
Universal Rundle Corporation
Vermont Marble Co.
Weyerhaeuser Company
Zonolite Division

Mike Andrews
Bob Bennett
Mike Galilianakis
James F. Trower
W. Fred Casey Co.
Andrew L. Clement
Acoustics, Inc.
Delph Hardware & Specialty Co.
H & S Lumber Co.
R. Reagin Warren
R. B. Hanes
William S. Buchanan
Perry S. Hudnell
Alex Thomas
Hal Owens
R. D. Ghezzi
Robert Highfill
Delph Hardware & Specialty Co.
Bruce F. Laing
Robert Lamoree
David D. Baldwin
Jerry Blucher
E. G. Vincent

CONSULT AN ARCHITECT

22 NORTH CAROLINA ARCHITECT
Only brick does so much so well.

Brick and Tile Service, Inc., Greensboro, N. C.