

School of Design

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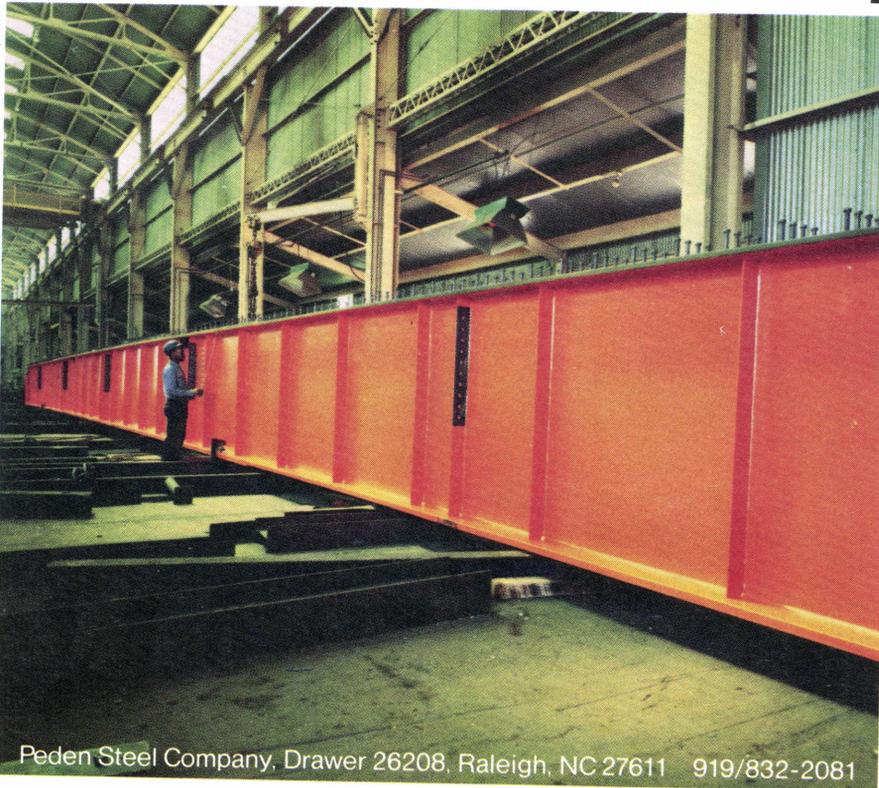
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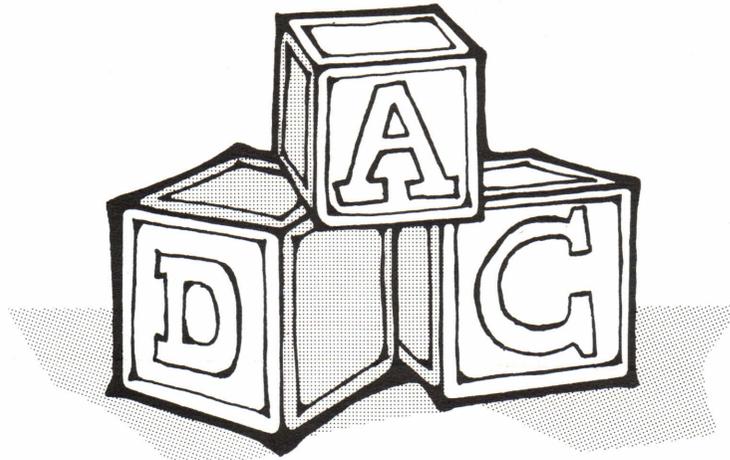
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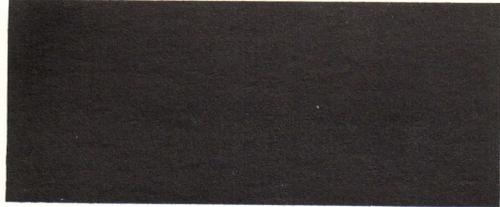
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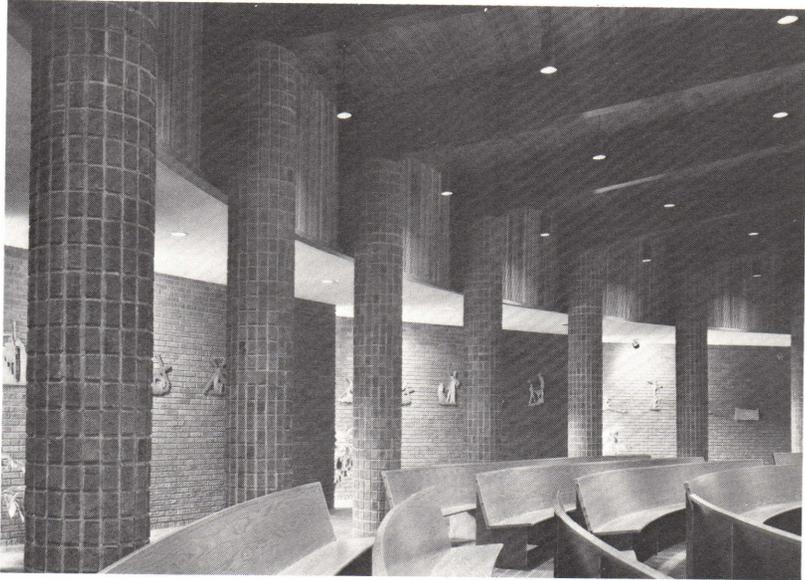
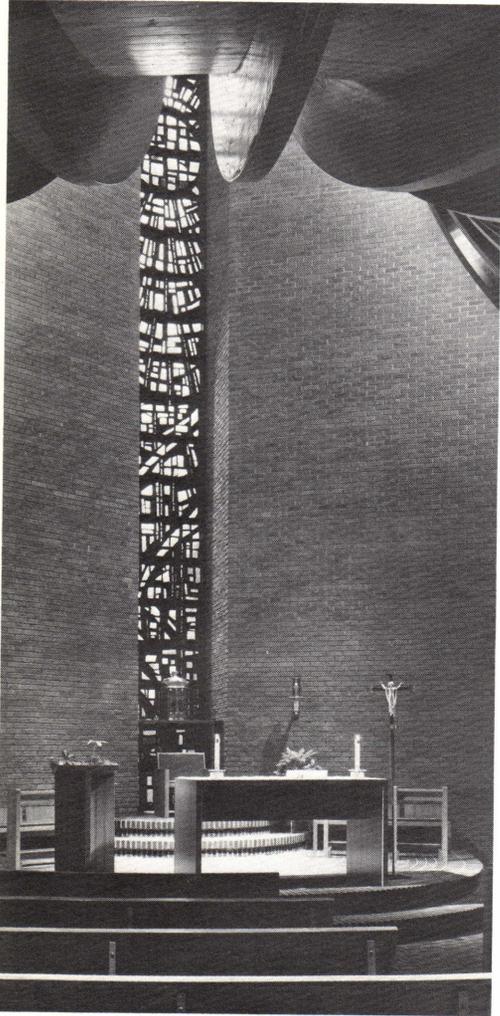
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Official Magazine of the
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7	Frontispiece		Ernest Wood
10	The School's Beginnings	Excellence and innovation in design education	Henry L. Kamphoefner, FAIA
12	Recollections	Experiences and impressions at the School of Design	
14	The School Today	Meeting the challenges of a changing world	Claude E. McKinney
16	The Programs	Architecture, Landscape Architecture and Product Design	
22	Survey	The graduates: where are they now?	Ernest Wood
	Center	The final pamphlet in NCAIA's series for architects' clients	
30	S.O.D.A.	An ambitious and meaning-full new building	Ernest Wood
35	Other Schools	Design education elsewhere in North Carolina	
37	Index to Advertisers		
38	Critique	A student's-eye view	Everett Lewis

North Carolina Architect is published six times a year by the North Carolina Chapter of the American Institute of Architects, 115 W. Morgan Street, Raleigh, North Carolina 27601. Subscriptions: \$6 annually; \$3 for AIA members and students; single copies, \$1.50. Advertising rates on request. Call Ernest Wood, 919/833-6656.

North Carolina Architect was formerly published as *Southern Architect*, Volume I, No. 1, through Volume XI, No. 11, 1954-1964.

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Vol. 25, No. 5

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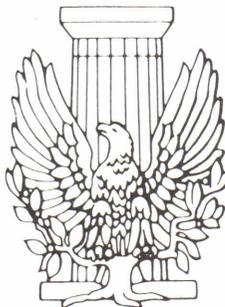
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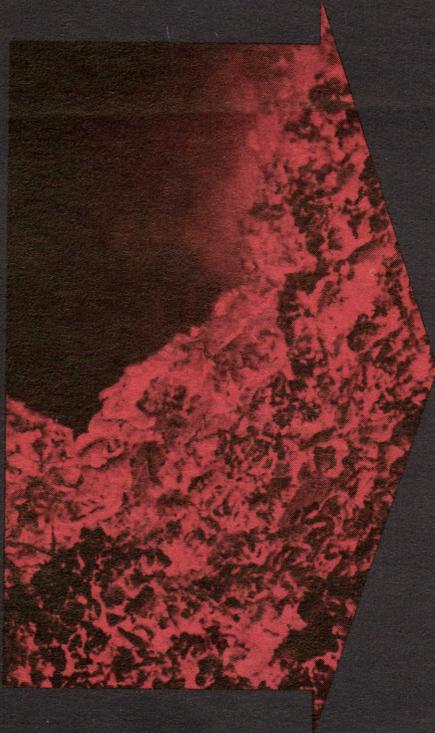
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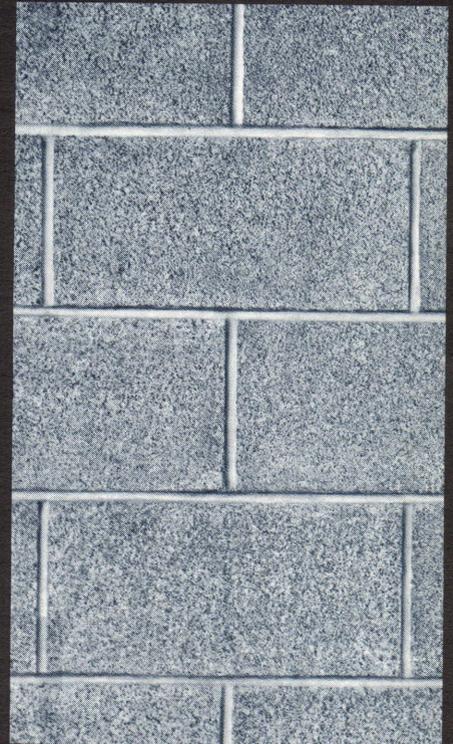
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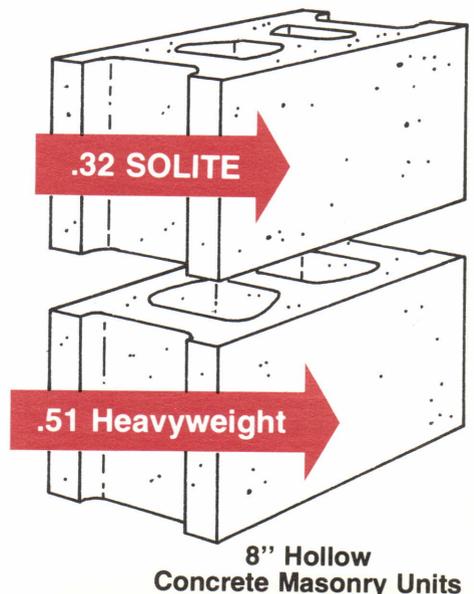
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8" Hollow Concrete Masonry Units

Frontispiece

By Ernest Wood, Editor

A few months ago, while we were planning future issues of *North Carolina Architect*, it occurred to us that by this fall, 30 years would have passed since the fall of 1948 when the School of Design at North Carolina State University first opened for classes. Today, many of the school's graduates are among the most prominent designers in the state. And children of early graduates are attending the school. An entire generation has passed. Time, as the saying goes, certainly does fly.

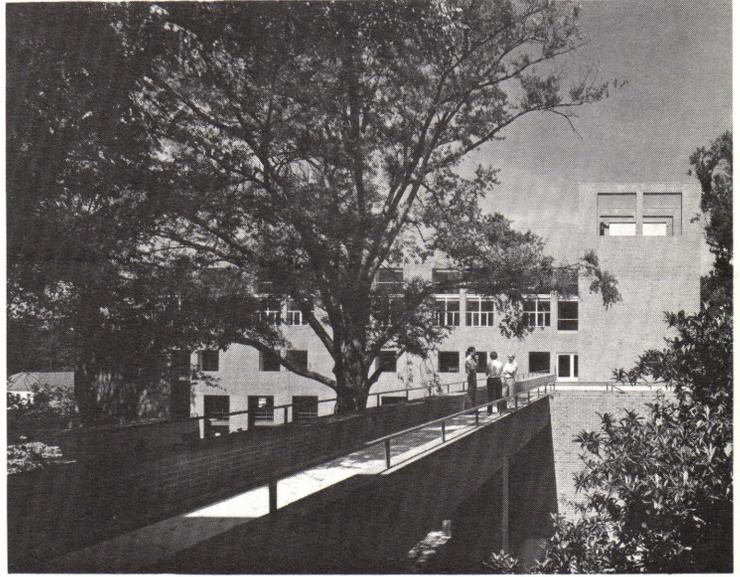
So with that anniversary to serve as what journalists call a news "peg," an excuse to write about a subject that's around every day, we began looking at how we might address the school and its birthday. (This put us in a strange position, by the way, since the school itself is not celebrating the event. Five years ago, it even let its 25th quietly slip by—and that quarter century mark is the sort of anniversary most people are certain to notice. But, then, most people don't throw parties for themselves.)

Immediately, we found another "peg." For coincidental with the 30th anniversary—though not originally intended that way—was the completion of the new addition to the School of Design building. As our issue developed, the addition would provide the subject for one article, the school's past another, the present another. For a final major article, a look at the school's graduates seemed appropriate, so we decided to survey them to find out what they're doing now and how they feel about their education.

But to wrap up design education in such a neat little package may be an impossible task.

For any good institution constantly is in ferment. Ideas change; people change. And everyone seems to have a different idea about what the school is and should be. So pinning the institution down to anything more than a general philosophical description can be difficult indeed. What's worse, design itself constantly is changing—and changes are bubbling pretty fast right now, what with post-Modernism challenging accepted concepts of architecture and landscape architecture moving to encompass broad planning and environmental concepts as well as the individual project. Educational institutions are always on the cutting edge of changes like these, a position that even in the simplest of times forces them to feel their own way trying to educate students for what the design professions will be like in an even more uncertain future. There may well be no one vantage point from which the entire school can be surveyed.

What we have compiled, then, in this issue of *North Carolina Architect* are a few glimpses of the school as many people—from present and former faculty to present and former students—see it. But our description of the school is still not complete. Design education, it turns out, is as complex as design itself. The debate probably will never end, for example, on how much technical training students should have when they graduate and how much they should learn as interns later. Our survey of graduates, though extensive, really only scratches the surface of that subject. And there are other questions which we simply have not had space to cover. How, for example, should schools prepare designers to handle future energy concerns? And



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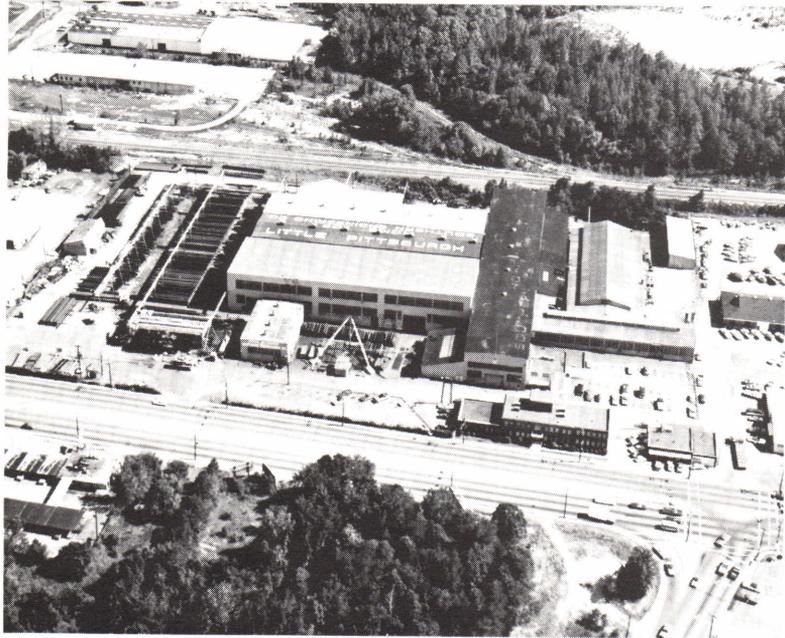
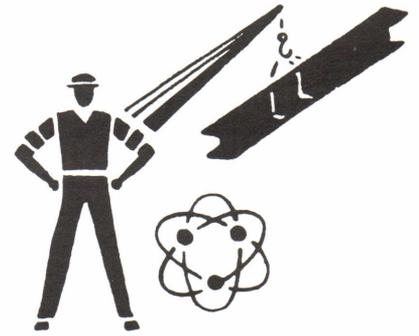
for the growing need and desire to save old buildings?

One thing we did learn, however, is how vitally interested most practitioners are in the education that young designers are receiving today. And this led us to thinking about the way the issues of design education lead directly into the issues of design and its practice. Take the issue of student internships. The AIA's new Intern-Architect Development Program (IDP) still is being studied in North Carolina, but when (and if) it is implemented, it will certainly be something we will want to cover in *North Carolina Architect*. This is something that affects *all* designers, the students looking for work and the practitioners who will hire them. Continuing education for practicing architects is another potential topic that goes beyond the normal limits of traditional schooling. In our November/December issue, we're already

planning an article on recent changes in architectural registration. With these topics that relate to both students and practicing designers in mind, we can see that this issue on the School of Design fits nicely into our continuing efforts to cover design in the state.

But design ultimately is about objects: buildings, landscapes, products. And it is through the work of its graduates and its faculty that the School of Design has its real impact. With 30 years behind the school, graduate and faculty designs are now spread all over the country. (A complete study of this impact would more than fill a magazine. It would fill a book.) It is in those designs that we find the real story of the School of Design. And that makes the story of the School of Design an integral part of design in North Carolina. And an integral part of our coverage here at *North Carolina Architect*. ■

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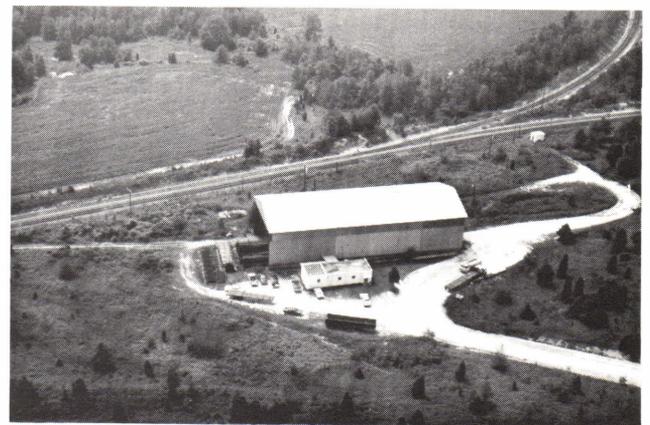
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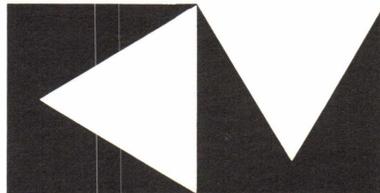
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The School's Beginnings

30 years ago, North Carolina began a tradition of excellence and innovation in design education

By Henry L. Kamphoefner, FAIA
Dean Emeritus, School of Design

Modern design education in the United States began in 1936 when Dean Joseph Hudnut invited Walter Gropius, Marcel Breuer and others to come from Europe to Harvard University. Modern design education began in North Carolina 12 years later with the establishment of the School of Design at North Carolina State College.

The climate of acceptance in North Carolina for a radical revision in design education was favorable and responsive in 1948. Several of the older architects in the state, especially William Henley Deitrick of Raleigh, were persuasive in encouraging the college to move out in the design field. Two wise and intelligent deans in the college, Harold Lampe in Engineering and Leonard Bayer in Agriculture were willing to relinquish a department from each of their schools in order to revitalize design education in the college. In the world of the university it is a rare and unselfish action for a dean to give up a department out of his empire.

Funds were allocated for substantial new support in design education by the 1947 General Assembly. Chancellor J. W. Harrelson of the college appointed a search committee to find a dean for the new school to be called initially the School of Architecture and Landscape Design. In October 1947 the committee began the process of screening some 80 candidates for the new deanship. In December the search was narrowed to three candidates and in January 1948 the position was offered to me. Many administrative positions are accepted in colleges and universities by persons who are overly anxious to make a move so that they may not ask for the concessions necessary to make the position one of stature and meaning. By some good fortune, I had been offered full professorships at the Universities of Minnesota and Michigan almost simultaneously with the offer from North Carolina. Those other two offers encouraged me to ask for a comprehensive package of concessions from the State University Administration in exchange for my acceptance. The University Administration then generously offered the position to me on my terms. I wanted to complete my contractual agreement for 1947-48 as full-professor of architecture at the University of Oklahoma, so I made monthly planning trips from Norman to Raleigh in the spring of 1948. On May 19, 1948 my wife and I with our two dogs arrived in Raleigh where I would be a dean in the college for nearly 25 years.

While visiting all of the schools and many of the departments at State in the summer of 1948 it became clear to me that the facilities and faculties of the School of Textiles, the Departments of Industrial Engineering and Furniture Manufacturing offered a sympathetic accompaniment for a student of Industrial Design. In the first summer of 1948 we decided to place Industrial Design on high priority for school expansion. With that



Dean Henry Kamphoefner (right) with Frank Lloyd Wright on the N. C. State College campus, 1950

expansion in mind we changed the cumbersome name of the school before first classes convened in the fall of 1948 to the more simple title — The School of Design. It took ten years to secure adequate funding for the new department. Because the term Industrial Design had become confused in the general public mind with *styling*, we decided to name the third department The Department of Product Design.

The distinguished new faculty who arrived for the opening of the school in the fall of 1948 came to an early consensus to discard the deadly eclecticism and senselessness of the American Beaux Arts and to search for a new design expression compatible to modern times. North Carolina proved it was ready for us. The new faculty also made a general commitment to design as a social art and a commitment to the need for design and structure, particularly the geometry of structure to be fully integrated into the design process. Later we also agreed to expand Landscape Architecture into broader concerns of regional planning and conservation.

The School of Design became a starting place for many bright and gifted young designers. Some of them remain here, but many of them moved to distinguished careers in other major design schools of the nation. In the 25 years, 39 members of the faculty began here then moved to other schools to become even more widely recognized. When I retired as dean at the end of 1972 the Association of Collegiate Schools of Architecture gave me a special award in *Serious Jest* for "having furnished more faculty members to other schools of

design in the nation than any other design dean.” During the 25 years there were 79 appointments made to the faculty who came and left. Some of them were here for short appointments by mutual agreement. Many of them stayed for many years. About 35 persons remained on the full-time faculty after my retirement. Considering original preparation, creativity, competence and interest in teaching and sustained personal productive growth the most distinguished of those more than one hundred persons I see as: Walter Baermann, Peter Batchelor, Joe Boaz, Robert Burns, Stefan Buzas, Horacio Caminos, Eduardo Catalano, Roger Clark, Joe Cox, James Fitzgibbon, Harwell Hamilton Harris, Randolph T. Hester, George Matsumoto, Matthew Nowicki, Stanislaw Nowicki, Duncan Stuart and H. Th. Wijdeveld.

The School of Design pioneered the Visiting Lecturer Program which was later gradually picked up by most of the other design schools in America. Lewis Mumford and Buckminster Fuller came first and gave substantial blocks of their time, Mumford for four years and Fuller over the first seven years. In the 25 years most of the world’s leaders in design with the exception of Le Corbusier and Alvar Aalto were our visitors. In that period faculty and students met and associated with Frank Lloyd Wright, Walter Gropius, Mies van der Rohe, Roberto Burle-Marx, Eric Mendelsohn, Naum Gabo, Thomas Church, Robert Motherwell, Willem Dudok, Pietro Belluschi, Charles Eames, Garrett Eckbo, Pier Luigi Nervi, Eduardo Torroja, Alexander Archipenko, Herbert Read, Eero Saarinen, Lawrence Halprin, Joseph Hudnut, Louis Kahn and many others. These distinguished visitors, most of whom spent a week to a month or more at the school brought a vitality and inspiration to the whole school and the community.

During the third year, after Matthew Nowicki’s death in an air-crash, the Student Publication of the School of Design began with an issue of incomparable student quality. The first issue was a memorial to Nowicki and his work. The magazine has probably continued as a sustained quality publication for a longer period of time than any other comparable student magazine. Its excellence has been and continues to be a major factor in calling world attention to the stature of the school.

During my tenure as dean, graduates of the school won the coveted Paris Prize in Architecture five times. Three fellowships to the American Academy in Rome were won in Landscape Architecture and Architecture. There were three Guggenheim Scholarships awarded to faculty and a graduate and of the 21 Fulbright Scholarships awarded N. C. State University during the period 19 came to graduates or faculty in Design. In addition several hundred thousand additional dollars were won in a miscellany of other competitive prizes and scholarships. Seven graduates of the school became deans or department heads in other design schools.

Architecture earned accreditation in the second spring after the establishment of the school. Landscape

Architecture was accredited in the third year. Every five years thereafter the two departments were revisited by their respective examining boards and after each subsequent visit a five year renewal of accreditation was granted. No formal accrediting mechanism in Product Design existed during my tenure, but twice we had informal reviews by the American Society of Industrial Designers and both times earned a complimentary report.

A practice begun in the second year that became in a few years a tentative tradition and was also a factor in bringing world wide attention to the school was the summer exhibition of student work. All available galleries on all floors of the school were used for this comprehensive show. The faculty reached an early consensus that the summer exhibition should be an annual exposure to the students, faculty and the public of current work just completed in the school, by the students. We decided, no matter what the excellence might be of student work done two or more years ago, only last year’s work would be shown in any summer. Hundreds of visitors came through the school during the summer period each year from May through October. The quality of work in the school thus became widely known and visually recognizable. New students coming to the school each fall could also see immediately what might eventually be expected of them.

The School of Design was the first school on the State campus to limit out-of-state enrollment. That decision caused no political problems, although in 1948 we admitted every student who applied — in state and out. About 15 years ago we decided to limit in-state admissions, although most responsible persons within the university told us that a land-grant institution could not limit in-state admissions. We tried it and the citizens of the state did not seem to object. We were able to limit the total enrollment of the school then to 400 students. Later that capacity was increased to 500 students when Leazer Hall became available to us.

If the school did receive a degree of renown quickly in its early years, much of that was due to the fact that we came to a good place at a good time. In our fourth year we were one of six design schools to be invited to exhibit student work at the Museum of Modern Art in New York and two years later we were one of seven schools to be invited to prepare an exhibition of student work for a traveling exhibition to Western Europe and then to Latin America. The second exhibition was sponsored by the American Institute of Architects.

North Carolina being considered the most progressive state in the South has usually been willing to examine novelty, imagination and innovation. The Consolidated University Administration was always encouraging and supportive. The understanding and generosity of support from the State University Administration was all any new school with an innovative new program could expect. ■

Recollections

A graduate, a faculty member and a visiting critic at the School of Design recall their experiences and impressions

By Bruno Leon

Architecture Graduate 1953

At 21 years of age, having just returned from the service in World War II, I was full of ambition to become an architect. Being essentially ignorant concerning the nature of the profession, I enrolled at a local school in Detroit. It was soon apparent to me that there were great gaps either in my perception of what design was about or in the school I attended. Searching for a new school occupied one summer and covered the Northeast, the Midwest and as far south as North Carolina. This was the beginning of the revolution in my life and it assumed its greatest momentum when I walked through the halls of

the School of Design at North Carolina State College.

What is the essential element I sensed immediately? It was an atmosphere which was charged with a positive spirit, a spirit which made us certain that we could contribute to our society in an individual fashion devoid of cynicism or defeatism. There were existent a constant flux of ideas to which we were subjected or which we helped to develop. This is one of the more essential attributes of the School of Design. We were encouraged to participate in exploration and we were surrounded by faculty, visiting lecturers and students who continually excited our minds with new ideas, many of which came

from different philosophical bases, but all of which were positive and hopeful. It is one of the significant attributes of Dean Henry Kamphoefner that he stimulated this diversity and selected such qualified people to maintain it.

Another positive dimension of the personality of the School of Design was its informality. The relationship was one of open and free contact and discussion. There was none of that formalistic nonsense that unfortunately occurs too often in some academic settings. How often I recall finding faculty searching out students to enter into their discussions of an idea or proposal and having these moments turn into actual spontaneous proj-

ects done, not for the purpose of credit or replacement of class work, but simply because it seemed important to pursue. Those are among the more beautiful moments I recall with fondness and admiration.

What I have just said brings to mind another strength of the School of Design: the attitude toward work and value. Although we were a generation that did not directly confront authority for its own sake, we were deeply concerned that society should change and we were contemptuous of meaningless effort that was seemingly unrelated to a set of values. Much of this attitude we had endured during our days in military service by necessity

By Harwell Hamilton Harris

Professor of Architecture 1961-75

In the faculty he assembled in his early years at North Carolina State College, Henry Kamphoefner made a great contribution to architectural education. Included in the faculty of those first years were Lewis Mumford, Buckminster Fuller, Matthew Nowicki and others who were not academic types. They were

not there for long but their brief presence established an atmosphere and a precedent that attracted others who likewise contributed independent outlooks and manners.

Unlike the customary faculty member who is hired because he fits a slot in the curriculum, these men were hired because they were capable of something for which no slot existed. Henry Kamphoefner

developed a curriculum to fit a faculty rather than a faculty to fit a curriculum. The man was expected to do what he was exceptionally able to do — not what a second-rater could probably do better. He was given the freedom to teach what and how he thought best. There was no attempt to enforce uniformity.

Down-grading the cut-and-dried and celebrating the new

and exceptional accomplished an air of excitement and anticipation. In such an air, the intelligent and innovative student learns quickly and enthusiastically. When a school does not provide such an air (and few do), the perceptive and innovative student must find it elsewhere — or make it himself. Otherwise, he becomes a run-of-the mill architect.

By Bradford G. Sears

Visiting Critic, Spring 1978
Landscape Architecture

My four week association with the School of Design this spring was so satisfying an experience that it is difficult to sort out the events and conditions that caused it. Certainly, the historically solid, well earned reputation of the school generates anticipation of good things to come for both those of us who visit as well as students who matriculate. My knowledge of the program in Landscape Architecture through former responsibilities in accredita-

tion of such programs nationally made the prospect of association all the more exciting for me.

There had been enough change-over in the landscape program faculty since earlier associations that when I arrived I knew only Dick Wilkinson, whom I consider to be among the leaders in contemporary landscape architectural education, and Will Hooker, once a most promising student of mine at Syracuse. It didn't take long to realize that they were representative of the quality of all faculty in the school with whom I had contact. I found the students in the classes where I lectured and those

with whom I had individual contact to be universally alert, inquisitive and perceptive. Admittedly, my own return to a primary focus on teaching after years of administrative distraction and preoccupation has been enough exhilaration in itself that I probably would have enjoyed lecturing an empty room. In any event, I felt that I was participating in an exciting, meaningful process.

Professional education, at least in the design professions, continues to strive for the impossible, a quality education plus adequate technological preparation for immediate post graduate employment in practice as carried on

at that moment. When the socio-economic system is relatively stable so is the format of professional practice and it is at least possible that a curriculum can be devised and implemented that will successfully predict the conditions and opportunities for practice some four to six years hence. In the world of these past three decades, there has been little if any stability. As a result, professional education has been in a constant foment and the target of much criticism and harassment. Regardless of the fact that rapid evolution in our socio-economic-ecological systems demand a much deeper and sensitive understanding of their nature and potential

and we were not amenable to a continuation of this process.

Our work at the school, and it was prodigious, seemed to us to be natural because it was clear in our minds that it was essential to develop quality in the development of whatever individual talents we possessed. The demands of the curriculum and the insistence of the faculty upon quality reinforced these perceptions. The lack of acceptance of mediocrity from people we admired because of their own quality and dedication saturated the atmosphere of the School of Design with pride.

One final emphasis. The curriculum structure was a good one, but in and of itself not revolutionary. Yet the quality

of the educational structure and the accomplishments of the school were excellent.

What this points up is that an educational program is not constituted by what is in the literature of a catalogue, but rather by the dedication, enthusiasm and personal involvement of a faculty led by a person who has the courage and insight to insure the presence of such persons. It was because of this quality that all of the students of that period of the School of Design in which I shared can be grateful. It is a certainty that we as a group are not statistically any more talented than any other comparable group; but we developed to a much larger extent the capacities of those talents in such a School of Design.

Bruno Leon is Dean of the School of Architecture at the University of Detroit.

How a man teaches is more important than what he teaches. What a student needs most is a sense of being on a frontier of knowledge and the brink of a discovery. The same student can be thrilled on one frontier as well as another. With the right teacher it makes no difference whether the field is art, technology, history, psychology, sociology or music. It is recognizing it as the frontier of a real and still-to-be explored

territory that makes the subject, and everything connected with it, of consuming interest to him.

Schools change. The one that outranks all others in one decade seldom does so in the next. What makes it pre-eminent is its aliveness. It dies because it is born. Three decades ago at North Carolina State College, a school was born.

Harwell Hamilton Harris practices architecture in Raleigh.

interactions by design professionals than ever before, many programs have remained or retreated into the harbor of technological preparation for current practice levels. Those who have sailed the other direction have been forced by time constraints to abandon some parts of their traditional technological preparation to early employment internships and have developed highly fluid educational models designed to prepare embryonic professionals to determine what should be done more than how to do it. Both practicing professionals and accrediting bodies have had considerable difficulties in understanding and evaluating these types of programs

and their products. The resulting schisms between educators and professionals, curricula and practice oriented accreditors has never been greater, with only modest ameliorating movements in sight.

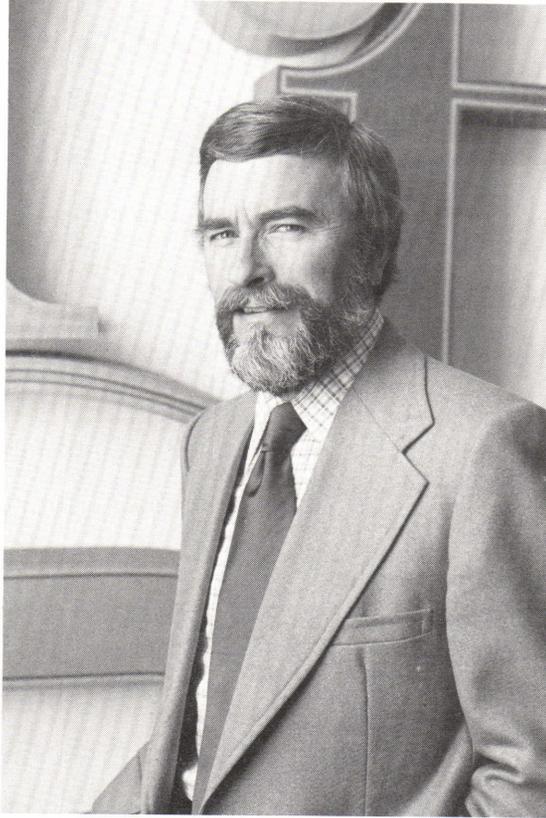
The School of Design, particularly the program in landscape architecture, as representative of the more progressive institutions in the country, is constantly involved with such program remodeling to respond to what they can best predict will be needed from its graduates a decade hence. It is what makes it an exciting if sometimes exasperating place to be.

Bradford G. Sears is Dean Emeritus of the School of Landscape Architecture, State University of New York College of Environmental Science and Forestry, Syracuse, New York, and past chairman of the Landscape Architecture Accreditation Board of the American Society of Landscape Architects.

The School Today

It is a place, people and a process dedicated to meeting the challenges of a changing world

Dean Claude E. McKinney



Bill Bayley

By Claude E. McKinney
Dean, School of Design

This edition of *North Carolina Architect* with its focus on design education and the thirtieth anniversary of the School of Design has prompted a full range of personal reflections on my tenure of the last 1/6 of that period: the search and interview process; the offer and my decision; my first exposure to the faculty; getting to know the students; working with a staff and faculty who knew more about the school than I could possibly learn in those first years; legislative action and the appropriation for the new School of Design addition and the subsequent five impatient years which followed with design, budget shrinkage and, finally, its completion this summer; the building of an organization of programs with full-time directors; adjusting Leazar Hall to support design fundamentals activities; expanding the Media Center and Shop/Laboratory to support the activities of all students; working with the Directors of the North Carolina Design Foundation to have them triple their level of support in scholarships and general funds for the school; the recent expansion and restoration of the Harrye Lyons Library as well as the administrative offices in the, more or less, classical context of Brooks Hall; selecting new faculty; developing a new approach to student admissions — one that involved faculty and students . . . all of these are tied together by a thread of continuity called “Nexus” . . . my own vision of having a real community of students, faculty, and staff (may I live long enough to see it become a reality).

My view of the dean’s role in the School of Design is that of a facilitator rather than autocrat — accepting the challenge of working with the faculty who have the direct responsibility for the education of our students and with my staff to support the whole educational process. My personal concerns are for my native state and its people who look to the school with many and varied expectations for I want our future graduates in serving them . . . to act responsibly as designers, respecting the environment, natural and man-made, new and old . . . to possess a commitment to quality and integrity with an overriding sensitivity to the humanity of their clients in intellect, body, and spirit . . . and to make these characteristics present in both the design process as well as the end product.

Finally, I want to offer the rather carefully selected words which are my message in the new School of Design Bulletin which will be published this fall. It is my brief but current statement about our school in its many facets:

The School of Design is a place, it is people, and it is a process.

Place, we are set into a university context with facilities, including studios, library, seminar/lecture rooms, offices, and laboratories in the Brooks Hall complex, newly completed addition and a portion of Leazar Hall.

People, we are a community of faculty, students, and staff — all sharing a responsibility in the function of the School whether in the role of teacher, learner or facilitator and often in a combination of these roles.

Process, we are committed to nurturing a process of educational development of students who as designers seek to shape their environment at personal, building, community or regional scale; and in doing so, we support a process of continued professional and personal development for our faculty and staff.

Historically, the School was established in 1948 as an experimental institution in broad fields of design offering undergraduate degrees in architecture and landscape architecture; product design was included in the next decade followed by a visual design option. In the late '60s, these disciplines expanded into graduate programs, including urban design. The School of Design now has the sole responsibility for graduate level design education in the State of North Carolina.

Currently, the School of Design offers undergraduate instruction leading to a Bachelor of Environmental Design degree in the disciplines of architecture, landscape architecture, product design, and product design with a visual design option. Graduate studies at the master's level are offered in architecture, landscape architecture, and product design. These graduate degrees are considered the professional degrees in each discipline.

The School enjoys a broad base of support from the University faculty and administration; also from a constituency of design professionals, corporate executives and civic leaders who aid the School through the North Carolina Design Foundation, providing scholarships, fellowships, and other resources.

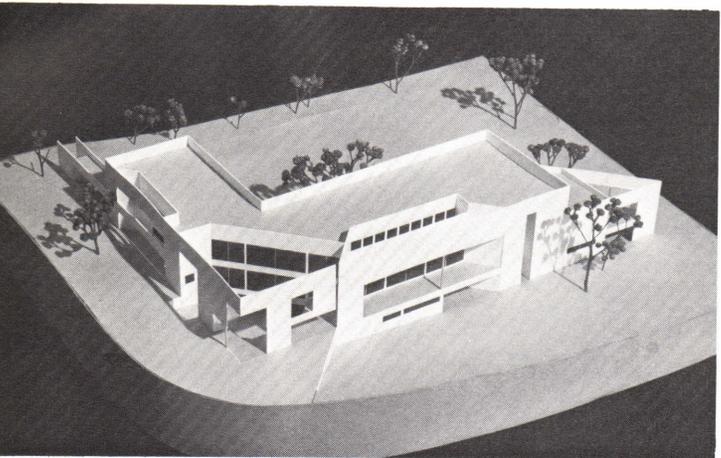
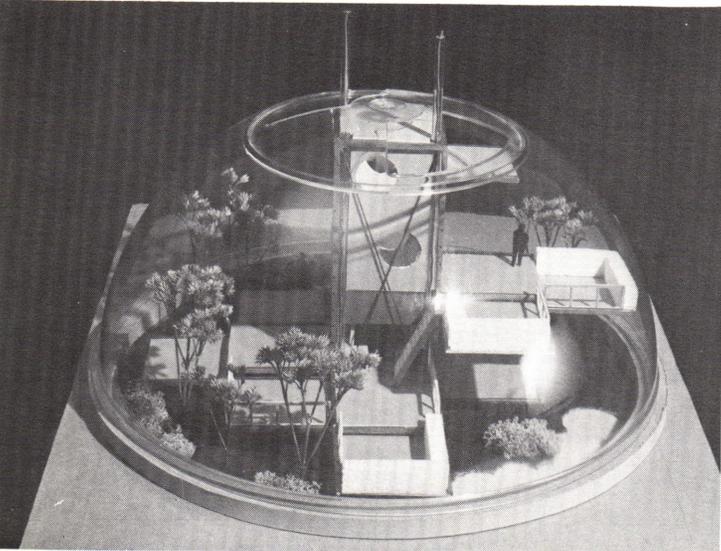
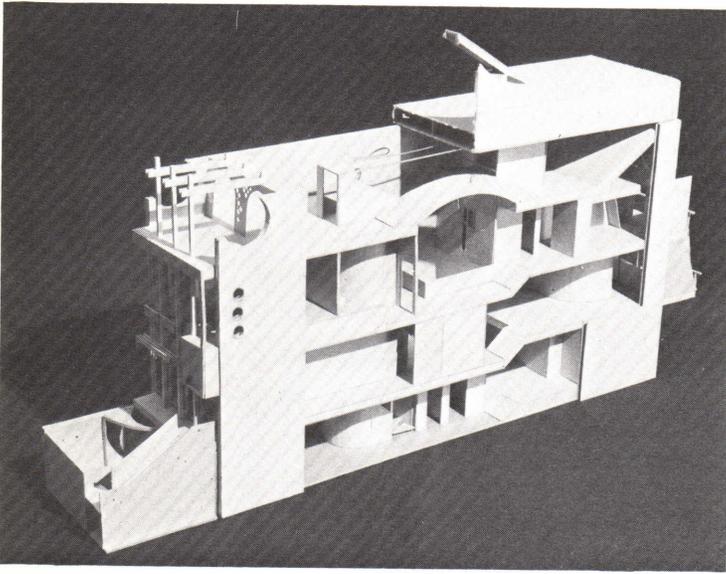
We are one of eight schools set in a broad university context on this urban campus. North Carolina State University was founded under a land-grant charter with the commitment to teaching, research, and public service. While this university is recognized for its thrusts in the sciences and technologies, its expanding strength in the humanities is of critical importance, for the ideas and philosophies contained in the humanities have a major role in the design students' development in shaping their capacity to humanize the physical environment.

Our students are largely from the State of North Carolina by legislative policy. They come from varying backgrounds, socially, economically, ethnically and racially. We are committed through our Affirmative Action Program to increasing the number of women and minorities in the School. The student is asked to accept a substantial portion of the responsibility for his or her educational development. The faculty is strong, independent, and diverse in

philosophy, knowledge, and experience. The students, through careful planning and advice, should encounter during their time here as many of the faculty as possible both in classes and in informal modes. The curriculum is structured to facilitate this objective.

Looking to the future for further considerations, there are professional firms, federal, state and local governments and corporations involved in construction, development, manufacturing and communications which offer varying roles for the graduate to play. However, as in the past, the graduate may define new modes of design practice.

As the complexity of society itself increases, so does the complexity of design practice. We seek to prepare the student for this challenge by addressing the total person. From admission to graduation, we are concerned with the student's creative ability to solve problems through the design process. We believe that character, devotion, and commitment are prime ingredients of any creative activity where social responsibility is concerned in addition to building a base of knowledge, abilities and design skills. We seek to cultivate the integrity of the individual to accept the challenge of a world of change. ■



Student Architectural models



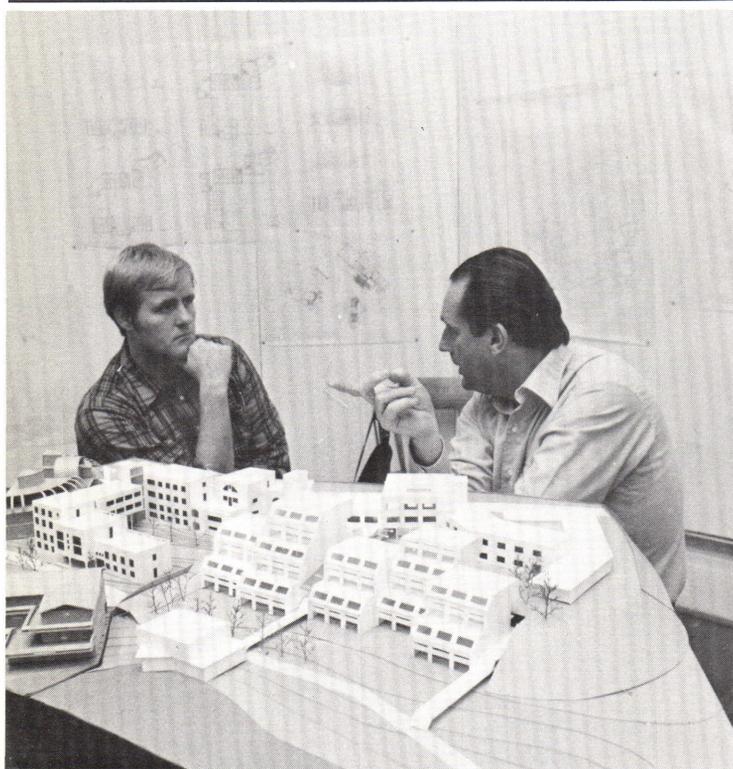
By Roger H. Clark, AIA
*Assistant Dean
 Professor of Architecture*

The Architecture Program began in 1948 as a five-year curriculum culminating in a Bachelor of Architecture degree. In 1968, the School of Design, along with many other schools, instituted a major curriculum change, creating a four-year Bachelor of Environmental Design in Architecture degree and a two-year Master of Architecture degree. (At that time, the four-year undergraduate degree was subdivided into a two-year Basic Design program and a two-year Intermediate Architecture program. The last major change in the curriculum occurred in January 1977, when the two-year Basic Design program became a one-year Design Fundamentals program and the Intermediate Architecture program was expanded to three years. Thus, the four-year undergraduate program and the two-year graduate program now can be characterized as a 1-3 + 2 curriculum.)

While the Architecture Program offers both an undergraduate pre-professional degree and a graduate professional degree, it is important to acknowledge the whole of the program. That is, the undergraduate experience is

related to the graduate program: the basic goals are shared, the activities are similar, and while the emphasis changes, both aspects are critical and neither is viewed as exclusive of the other.

In terms of educational posture, the undergraduate program can be characterized as "education through architecture" in which architecture is used as the specific educational vehicle in addressing a diverse range of issues and problems. Conversely, the graduate program can be characterized as being primarily "education for architecture" in which a diverse range of vehicles is used to investigate specific architectural problems and issues as they manifest themselves in and have bearing on buildings. For example, natural light may have some impact upon a studio project at either the undergraduate or graduate level. At the undergraduate level, architecture is used as a vehicle to understand natural light as a phenomenon as well as to foster independence of judgment, synthetic creativity, the establishment of values and gaining knowledge of a culture, perception, etc. The graduate students might be asked to demonstrate their craft at utilizing natural light, among other things, in designing a



Bill Bayley

Far Left: Drafting a student project

Left: A faculty critique

building. Thus, architecture and the skill in producing it becomes the graduates' goal.

The undergraduate educational activity emphasizes the education of the individual. Considering the level of motivational maturity of the average undergraduate, a method of education that emphasizes an intimate link between "means and end" is appropriate. The student's rewards and satisfactions become intrinsic to the educational activities, thus making the rewards and satisfactions, to a certain extent, an end in themselves.

However, to view the undergraduate architectural education as a "liberal arts program with a design focus" is inadequate. Rather, a specific educational vehicle, architecture, is used to investigate and to learn to understand selected relevant phenomena — the nature of light, human behavior, the natural environment and the like. The undergraduate program aims at the development of autonomous individuals within the context of architecture and emphasizes such skills as independence of judgment and awareness of one's personal values rather than the production of graduates with specific performance characteristics. However, since the

undergraduate program is part of a large whole that culminates in a professional degree, the student gets more than a glimpse of the profession during the first four years. This professional dimension of the undergraduate program is intended to begin the process of understanding architecture as a distinct body of information, ideas and skills and helps to serve as entry to the graduate level.

The graduate educational activity emphasizes the professional dimension of the program. The motivational maturity of the graduate student also permits emphasis on the "performance" aspect of education. Within this method, rewards and satisfactions are generally external to the educational process itself. The graduate student, however, should be sufficiently developed as a person that the emphasis on performance does not diminish his autonomy but rather allows it to develop in a personal way. This allows for individual development within professional education. Rather than looking at the world through architecture, as does the undergraduate, the graduate student looks at architecture from many different points in the world. Architecture provides the focal point for many

different avenues that always intersect in buildings, their parts or their aggregations. Consequently, there is increased concern at the graduate studio level regarding the design — demonstration of the craft, the product as it is manifest in a work of architecture — in comparison to the undergraduate concern for the person, the designer.

The dimension of professional education at the graduate level, then, becomes preparation for entry into the profession of architecture in all its real life complexities. The dimension of individual education finds its primary arena in challenging conventions, pushing limits and developing new knowledge (research). It gives the student the opportunity to pursue personal interests of a theoretical nature within architecture.

Throughout the architecture program, the central and unique activity is the design of physical objects. Technologies, programming, planning, community development, historic preservation, etc. are viewed as worthwhile and appropriate supportive activities to design. The base of the curriculum, thus is physical design. This base also provides the focus within which a variety of experiences occurs.

Landscape Architecture

By Arthur Sullivan

Director

Landscape Architecture Program

Within the general structure of a university, there are many specializations which students may choose. Landscape architecture is a relatively new addition to the list of major areas and, because of its environmental base and professional application, it is being selected by a growing number of students. Consequently, landscape architecture is being incorporated into the curriculum at an increasing number of universities.

There are practical and philosophical reasons, however, for being unable to set down a universally agreed-upon definition of landscape architecture. The legal framework for the practice of landscape architecture is changing. New laws such as the National Environmental Policy Act, the Coastal Zone Management Act and Title VII of the Housing and Urban Development Act have given private and public practitioners new tools for influencing land-use decisions of clients and/or constituents.

In the distant past, perhaps, a view of the landscape architect as purveyor of outdoor ornamentation was justified. In the recent two decades, however, the issues of urban growth and decay, pollution, noise, and waste disposal, energy and resource recycling have combined with traditional concerns of beautification and recreation to draw practitioners into all kinds of land-use decisions, covering a spectrum from garden designs through wilderness reservations.

Historically, we know that landscape architecture involves the land and human designs upon it. Our technology affects what is possible in land use while our art provides a value system. It seems reasonable that to affect landscape design, one must understand the medium and the process.

The relationship of geomorphology (anatomy of land, land form) and civilization has produced a diversity of landscapes, landscapes



Bill Bayley

A landscape architecture class

which are diverse in size as well as predominant design processes. Pertinent topics for study include Italian and English gardens, medieval towns and American new towns, romantic and conservationist attitudes toward wilderness. Thus, there is a history and geography of landscape architecture to be considered along with the nature of landscapes.

A curriculum designed with the foregoing in mind might include: *Analysis*: natural and social factors, history and geography; *Valuation*: environmental perception and cognition, land use planning; real estate development;

Implementing Change: site planning, planting design, theory and method, project planning.

At N. C. State University, these kinds of courses are presented, some as requirements and others as electives, depending on which of the following concentrations is selected by the student:

The concentration *Land Development and Site Planning* is recommended for those who wish to offer services directly to the development and construction industry. Professional skills are emphasized together with legal and economic aspects of project

design and management. The professional landscape architect acting on behalf of a client has special obligations to the client and special opportunities for carrying projects into the "real world." It is important that students choosing this focus be acutely aware of the goals of public policies within which the free land market operates.

The *Community Design and Development* concentration is directed at those who seek a role in the urban planning process. Although social and policy oriented, the landscape architect acting from this perspective should have a clear understanding of the design opportunities for growth management.

The *Landscape Planning* concentration is advisable to those seeking a role in environmental conservation. Drawing its discipline from the natural sciences, this concentration accepts social policy directives and channels them into the most advantageous locations from the viewpoint of overall environmental health.

In North Carolina, there are four distinct means for acquiring skills in landscape architecture, two of which are professionally accredited:

At A&T University in Greensboro, students can pursue the BLA which is provisionally accredited as a new degree program authorized by the 1976 legislature. The B.LAR at N. C. State was withdrawn as a condition of establishing an M.LAR program there in 1971. (Regulations of the American Society of Landscape Architects at the time did not permit two accredited programs at the same institution.) Today, the accredited BLA program is at A&T, the M.LAR at N. C. State.

In the period of 1971-76, there was no accredited undergraduate program in the state. To answer interests which still exist and, indeed were growing, N. C. State University responded with two non-accredited programs. One is a Bachelor of Environmental Design degree which permits major concentration in Landscape Architecture. The other is a Bachelor of Science in Horticulture with a Landscape Technology Option.

By Vincent Foote

Director
Product Design Program

Product design, or industrial design as it is referred to today, is the profession of creating concepts and specifications for objects, communications and systems with the purpose of helping maximize their aesthetic, functional, safety and economic value. Industrial designers develop these concepts and specifications through the collection and analysis of data which: maximize needs and sensitivities of the user (aesthetic, functional, emotional); satisfy requirements set forth by the client and/or manufacturer; utilize materials and technology effectively and economically; comply with legal, regulatory, and safety requirements; and are clear, precise, and fully understood by the client. Usually this professional design service is provided in the cooperative working relationship with other members of the client's development group, including management, marketing, manufacturing, and other related specialists.

In addition to supplying the concepts and specifications of objects or systems, industrial designers are often maintained for consultation on a variety of problems usually

involving the client's public image. This may be as identification of objects or systems, organization, exhibition, interior space planning, communications, advertising, packaging and related creative services. Because of designers' roles as generalists and their unique experience, the designers' concepts in decisions have impact on a wide variety of related activities. Accordingly, industrial designers' opinions are often sought in such areas as development of industrial standards, assistance to governmental regulatory agencies, the development by manufacturers of quality control and inspection procedures and general improvement for internal control of operational systems.

Seeing the need to educate designers to help in the development of North Carolina industry and their products, Dean Emeritus Henry L. Kamphoefner initiated the idea of a product design program in the School of Design.

With legislative funding provided for the program in 1957, the first students were accepted into the program in 1958.

Today, upon completion of the basic Design Fundamentals Program, the student selecting the Product Design Program elects as a major area of



A visual design critique

Bill Bayley

concentration either the Product or Visual Design Option.

The Product Design Option is concerned with all aspects of machine made products and their relationship to man and the environment. The students in this program are involved in three major design and research activities: man's behavior, man/product/machine relationship and the product itself. The product design curriculum is based on the developing education as it relates to an understanding of the principles of problem identification, problem solving methods and communication skills and an understanding of the nature of materials and the methods of production.

The Visual Design Option within the Product Design Program deals specifically with communication of content via typographic, photographic and illustrative methods. The visual manifestation of ideas (both two and three dimensional) exploitation of media, the transmission of information and reinforcement of response to the beautiful are integral parts of the program. In addition to problem solving, the mission of the visual design studio is to establish a sound operational base, a feeling for the issues of visual design as a communicative vehicle, the development of a personal

aesthetic and a wider exposure to historic precedence in the visual design area.

In the overall program, there are four major elective emphases that a student may choose from. The first is general practice in the product design area; the second, furniture design; the third, general practice in the visual design area; and the fourth, textile design concentration.

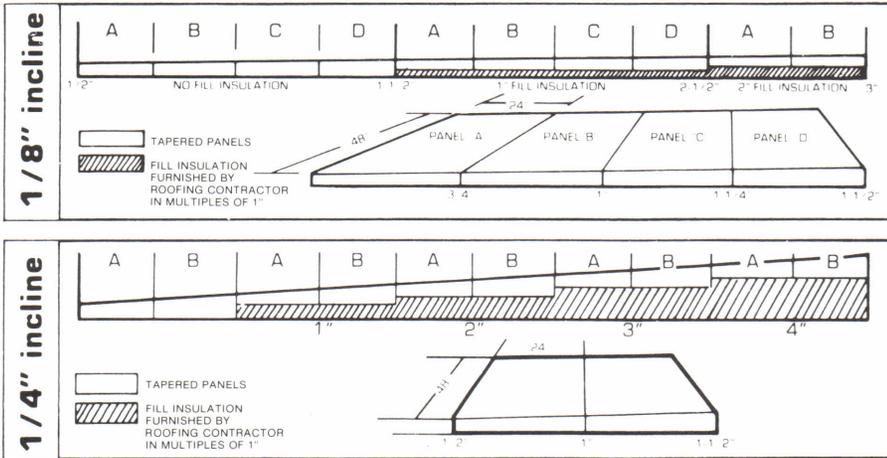
In 1968, the Graduate Program in Product Design was established, leading to a Master's of Product Design degree. The Master's of Product Design is a professional degree and the academic direction is selected by the individual candidate. Both the undergraduate and graduate academic programs are rigorous and exacting and are basic to the student's professional design education. The educational process is applicable to the professional growth of the student both while in school and after his or her formal education.

Graduates from both the undergraduate and graduate programs can be found working and teaching in the State of North Carolina in such industries as furniture, medical equipment and computers, in technical institutes and universities, in government and in advertising agencies and studios.

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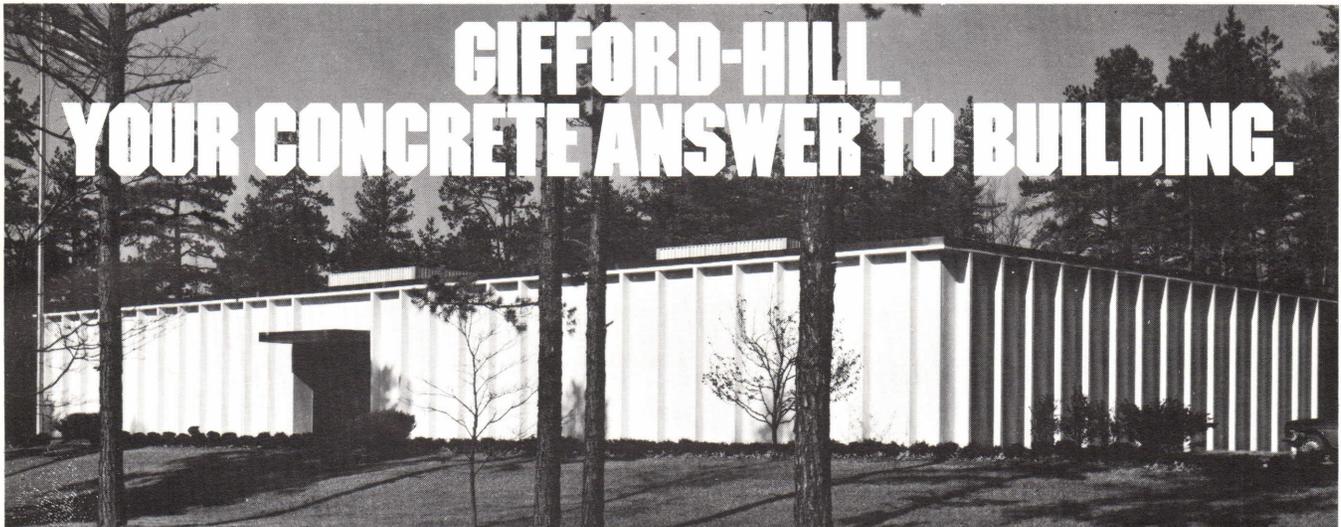


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Some Streets Crowd 12 Years Into 12 Months

Most residential streets are designed to last many years with no major repairs; however, many are badly deteriorated in only a few months.

These are the streets that have been completed before most of the residences have been constructed. They are then subjected to heavy construction traffic which in a few months can equal many years of normal traffic use.

The problem stems from the fact that

initial homeowners don't want to wait until the last house is completed before the street is paved.

There is a solution!

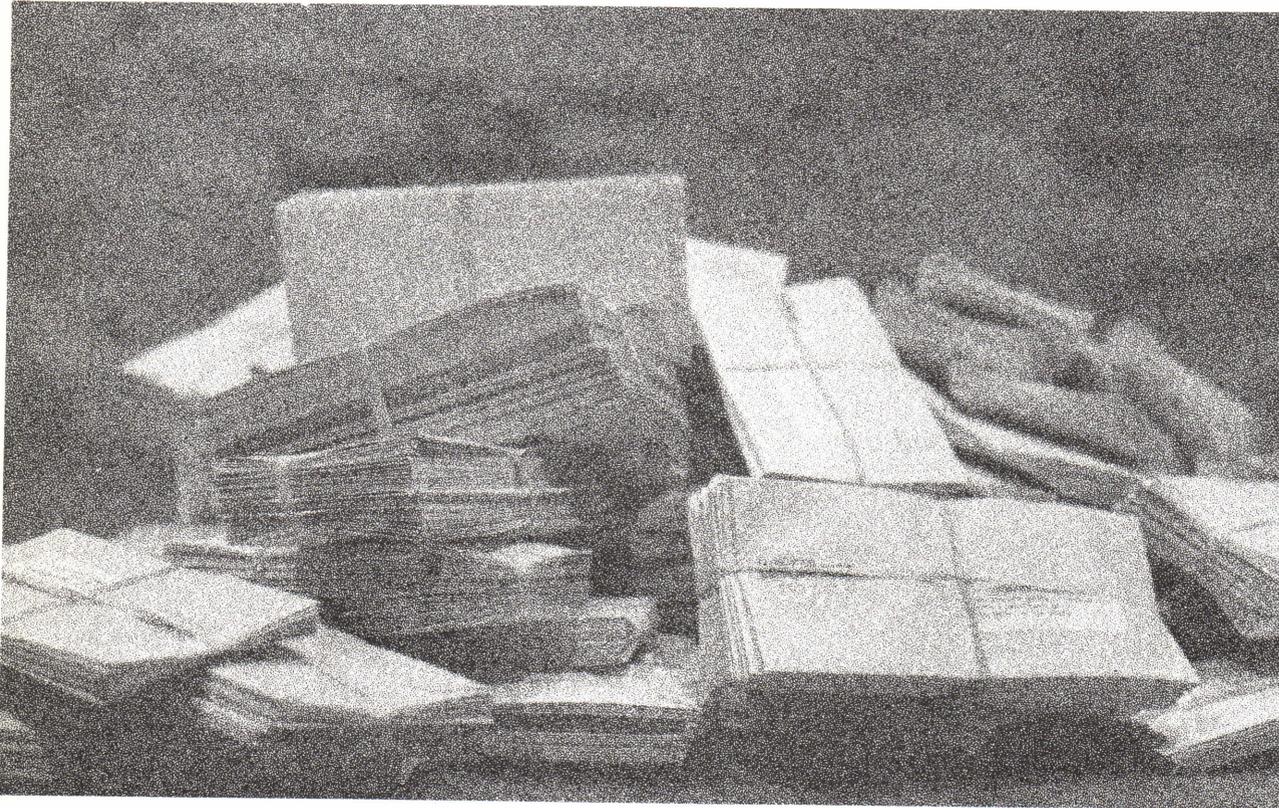
Pave the street with Total Asphalt. The asphalt base is placed and serves as the pavement until building construction is complete. The damage to the base, if any, is repaired and the final surface is applied.

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Ernest Wood

Our questionnaire, ready for the post office

By Ernest Wood

The measure of any school is, of course, its graduates. The bottom line of a school's success is its graduates' success and how well their education serves them in their careers. So *North Carolina Architect* set out to learn how the School of Design's graduates feel about their education. In June, we sent questionnaires to 1,553 graduates, from those who graduated with the first class in 1949 to those in the class of 1977 who had been out of school a year. Members of the class of 1978, out of school only a few weeks, were not surveyed.

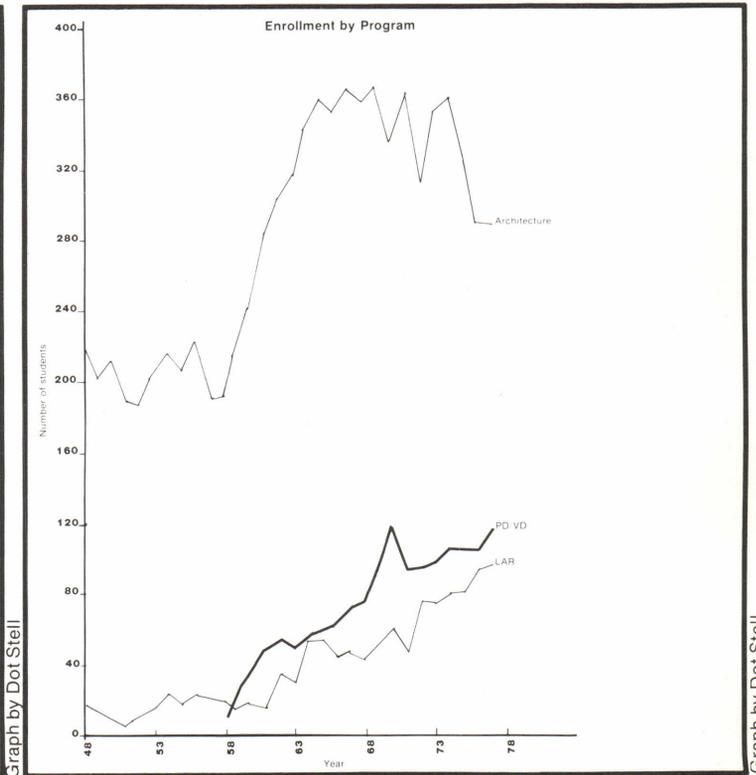
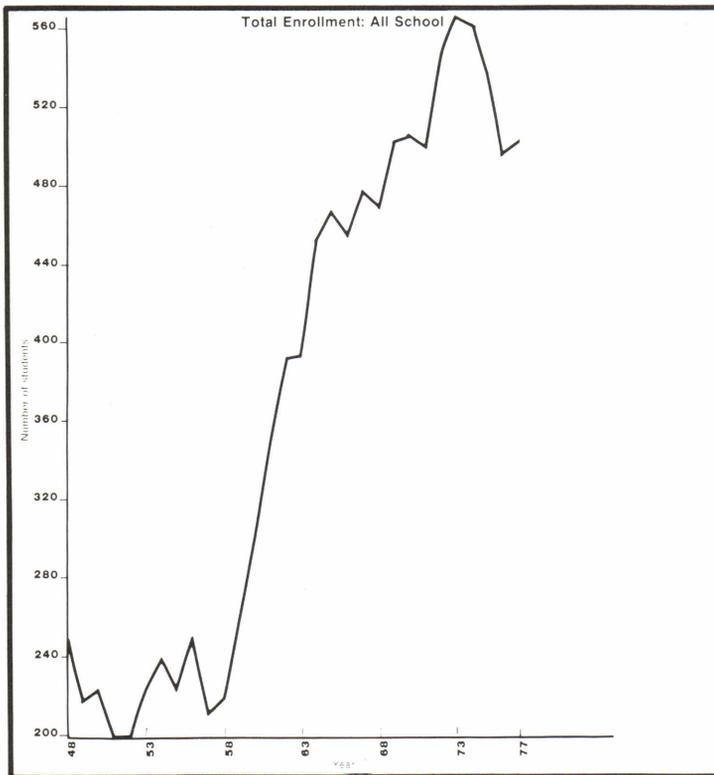
The first thing we learned, even before sending out the questionnaires, is how widespread the graduates of the School of Design are. According to our mailing list, which was supplied by the alumni office of N. C. State University, graduates reside in 47 states (all but North Dakota, Wyoming and West Virginia) and the District of Columbia and in 12 foreign countries and U. S. Territories. The most heavily populated state, naturally, is North Carolina, with 1022 graduates. Of the state's cities, Raleigh has the most graduates with 306 (though some addresses appeared to be old student addresses). Charlotte has 96. After North Carolina, the numbers in each state drop off sharply. Next in line is Virginia with 64. Other states with 20 or more graduates are: South Carolina (41), New York (39, including 15 in New York City), Florida (37), Maryland

(32), Georgia (30), California (27) Tennessee (25), New Jersey (23), Massachusetts (22) and Pennsylvania (22). Of the foreign countries, Canada has the most graduates, with seven (five in Ontario, one in Quebec and one in Alberta). Two live in London, England. Other countries and territories have one each: Honduras, Panama, Afghanistan, Israel, Thailand, Jamaica, Finland, Philippines, Virgin Islands and Puerto Rico. (Because of time and distance involved, graduates living overseas were not surveyed, however.)

By mid-August, we had received 232 answers, representing 14.9% of the graduates up to 1977. The proportions of responses closely paralleled the proportions of graduates in each discipline: 75% of the responses and 67.5% of the graduates were in architecture; 16.8% of the responses and 14.6% of the graduates were in landscape architecture; 8.2% of the responses and 17.9% of the graduates were in product design.

A few words on the student body: Design has always been a relatively small school; the number of graduates has been even smaller. In the late 50's and 60's, however, enrollment grew substantially and the number of graduates grew accordingly. (The number of graduates for students enrolled grew even more rapidly, in fact, as the school began to be more selective of its students.) The School of Design's enrollment peaked in the late 60's and early 70's, when the transition was being made from five year undergraduate programs to four year programs and both existed simultaneously; it

Ernest Wood is editor of this magazine.



dropped a bit after the five year programs were phased out. (About the same time, the College of Architecture opened at UNC-Charlotte. Later, economic problems and poor job prospects appeared to discourage students from studying design. The school also purposely cut back some enrollments.) Enrollments have now pretty much leveled off. Most graduates, and most respondents to our survey, therefore, represent the past ten years of the School of Design's 30 year history.

And a few words on our responses: School of Design graduates may not be large in number, but they are enthusiastic about their school and interested in the issues of design education. One architect who graduated in 1958 and who now practices in Portland, Ore. sent a 20 minute cassette tape on which he had dictated lengthy responses to our questions. Many, many respondents completely filled the space available for their answers. And quite a few added enthusiastic notes to the end. "I am very proud to be a graduate of the School of Design," wrote another 1958 architecture graduate who practices in Raleigh. Wrote a 1972 architecture graduate now practicing in Aspen, Colo.: "Having worked in North Carolina, California and Colorado and having been exposed to a variety of architects educated throughout the U. S., I feel that the School of Design has prepared me extremely well to meet the challenges of architectural practice and design." And wrote a 1972 graduate with degrees in both architecture and product design who practices architecture in Morganton: "I think my education at the School of Design at NCSU was the best education I could have gotten."

The Questions:

Our opening questions dealt with age, sex, race, years graduated, degrees received, other degrees and institutions, professional registration, membership in professional organizations, current position and employment history. A series of short essay-type questions followed:

If you attended graduate school after graduation from School of Design, why? If not, why not?

Recalling your education at School of Design, which courses have proven to be most valuable to you? Which could you have done without?

Did any single faculty member have an especially profound influence on you? If so, who was it? And how did he/she influence you?

What do you, as a practitioner, feel the role of the School of Design should be in training students for your field? More design oriented? More oriented to practice? More broad exposure to other disciplines?

More comments?

And the answers:

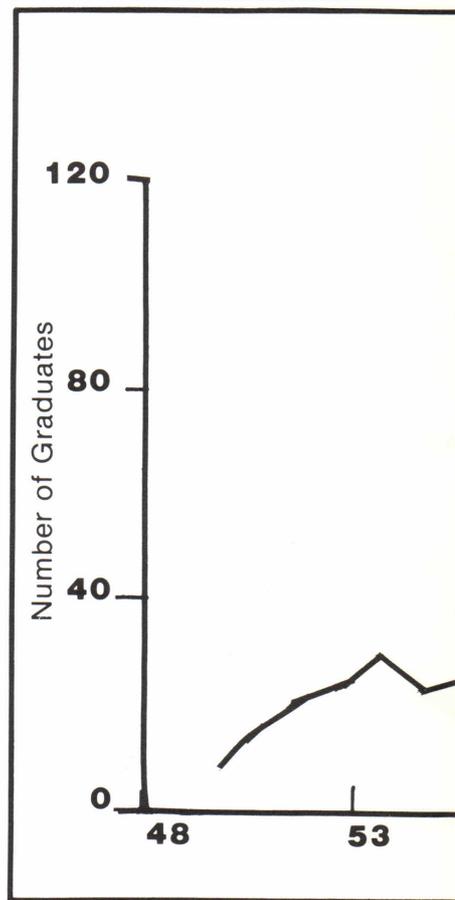
Architecture

Architecture, the largest program at the School of Design, graduated 1111 students from its beginning 30 years ago through 1977. We received 174 answers to our questionnaire (15.7%), at least one from every class since 1949. (The most heavily represented classes were 1971 and 1972, with 18 responses each.) Only nine respondents were female. Respondents who had received the B. Arch. degree numbered 121. Forty-four received the Bachelor of Environmental Design in Architecture (BED) degree. Eleven (two of whom also had received undergraduate degrees from the School of Design) received the M. Arch. degree. Sixty-four (36.8%) received some other education or other degrees, ranging from undergraduate liberal arts degrees before enrolling at the School of Design to a fellowship at the American Academy in Rome to the Paris Prize (two respondents). Twenty (11.5%) who received undergraduate degrees from the School of Design later received M. Arch. degrees from other universities. (The school most frequently attended was Harvard, with seven graduates). Few enrolled in graduate school in other fields after receiving architecture degrees from the School of Design, though there was a smattering of business degrees, one received a degree in landscape architecture and one planned to attend law school this fall. Seven, however, had received graduate degrees in city planning. Registered architects

numbered 114 (65.5%). Eighty-one of those are in North Carolina. One was a registered professional engineer. Eighty-six (75.4% of registered architects) are members of AIA and seven recent graduates are associate members of AIA. Most respondents are working as architects or, if recent graduates, are working as draftsmen or otherwise preparing to become architects. Of the architects, 73 (64%) were principals of their own firms or partners in firms. Of those not working as architects or still preparing for a career in architecture, most were employed in allied fields—architectural education, government or the like. Older graduates tended to be either practicing architecture or teaching and most had pursued those same careers since graduation. The more recent graduates, however, tended to occupy a wider variety of jobs related to the profession: three were on the staff of AIA in Washington, D. C.; one with an M. Arch. was a bank vice president in charge of multi-family loans; two were planners; one was director of a historic properties inventory; two listed themselves as builders and designers; one headed his own research company specializing in developing better tobacco barns. No respondents who graduated from the School of Design in the 1950's or 1960's were working in jobs not related to architecture. But three graduates of the 1970's listed such jobs. One listed a position as "graphic design and wood-working." One was a church organist and choirmaster. Another was unemployed.

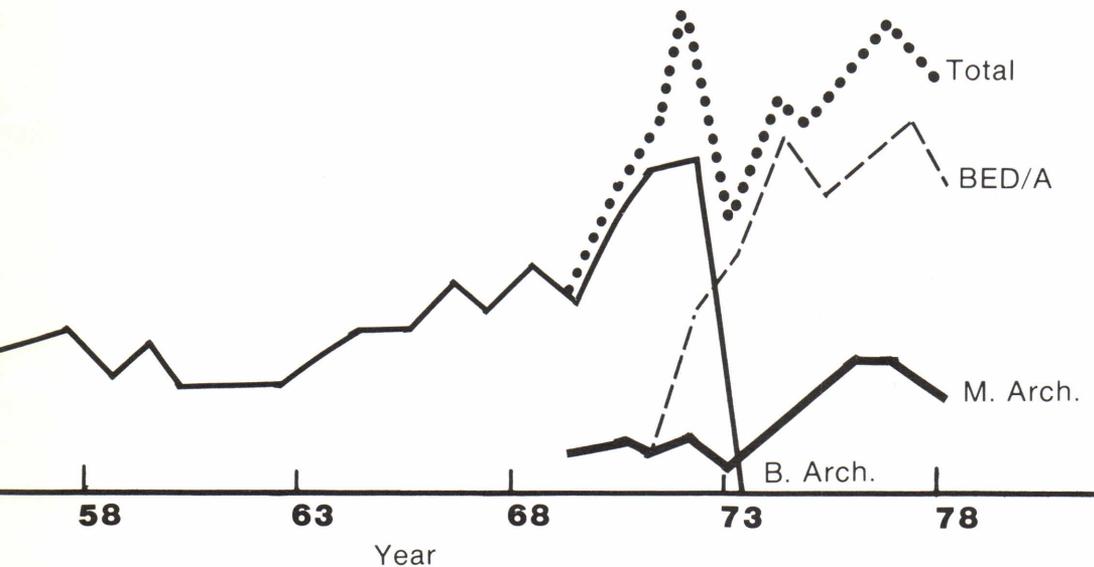
The reasons given for attending or for not attending graduate school echo a major curriculum change in the School of Design. Graduates who received the five year professional B. Arch. degree generally did not attend graduate school (unless they wanted to teach or specialize) because, most said, they were anxious to work. Graduate

school, wrote a recipient of a B.Arch. in 1969 who now practices in Charlotte "has no relevance whatsoever to the 'traditional' practice of architecture, which is my preference. It's dandy if your desire is teaching, research, etc." Wrote a 1968 graduate who also received a B. Arch. and who now practices in Durham: "I felt that I should start applying what I had learned and that experience is also a valuable teacher." Recent graduates with the four year, non-professional Bachelor of Environmental Design in Architecture degree, by contrast, *do* now often attend graduate school because they want to work. A 1972 graduate who received a BED from NCSU and a M.Arch. from Ohio State University said simply that he had attended graduate school "to speed up the registration process." Others mentioned that they had attended graduate school because they "wanted a professional degree." Many, however, while fully intending to attend graduate school later, have chosen to work for a few years first with their non-professional degree. A student who received a BED in 1973, worked for three years and now is a M. Arch. candidate at Yale, wrote that he had enrolled in graduate school "Because I needed some more practice at thinking and designing without the pressures of a production tuned professional office." And a member of the class of 1976, also with a BED, now working as a draftsman for a North Carolina firm, wrote, "I believe graduate school is best used by someone with a clear and deliberate objective in mind. Lacking such a 'target' at graduation, I've not gone to graduate school and won't until so motivated."



The hands-down winner as the most valuable course at the School of Design was the design studio. "In this situation," noted a 1976 graduate, now a graduate student at the University of Michigan, "you had an opportunity to design a structure, which was the closest a student came to being a professional." A 1968 recipient of a B. Arch. noted that "The design courses offered a forum in which one could deal with the decision-making process in a design context. The instructors were able to offer criticism based on actual working experience and pushed for the ultimate solution." Other courses mentioned frequently as valuable were structures, design history and drawing. Many graduates said simply that *all* their courses had proven valuable. Some, however, said they could have done without structures. And several said they could do without sociology. Noted a 1956 graduate: "I could have done without ROTC and usually did."

Graduates: Architecture



The question of design emphasis versus emphasis on professional practice is, as a member of the class of 1958 now practicing in Portland, Ore., said "the classic problem." His own opinion? "It's a difficult problem for any school to train anybody to be a practicing architect. And obviously we're not training people to be practicing architects. We're training people to be thinking and creative architects." In his own practice, the graduate valued most the exposure he received in school to other disciplines—landscape, engineering and the like—through visiting lecturers at the school. Through exposure to other disciplines, he said, he can today better relate to consultants and colleagues in other professions that he regularly works with.

Graph by Dot Stell

Many graduates, however, especially the older ones, even while saying design studios were the courses most valuable to them now, urged a greater orientation to practice than they feel the school is providing today. Among graduates of all years, the phrase "real world" cropped up again and again in discussions of students' needs.

"More design orientation must continue. More business courses needed since that's what it's all about," wrote a 1959 graduate now principal of his own firm in Sarasota, Fla. A 1960 graduate now practicing in Raleigh noted: "As architects in private practice, we must be dreamers, yes. But we must have the practical knowledge to design for a specific site, within a specific budget to meet all of today's codes and ordinances and within the limited fee that we as architects receive. Students out of school today seem to want to think a project to death. As architects, too, we must be able to think quickly in design, visualize space and detail, produce drawings adequate enough to construct a building, be a mediator between owner and contractor, produce a thing of

Fifty-seven individuals were named at least once as faculty members who had profoundly influenced their students. (A few graduates mentioned *all* their faculty; one mentioned his fellow students.) The faculty member mentioned most often, however, was Vernon Shogren. Wrote a 1965 graduate (B. Arch): "I feel that more than anyone else professor Vernon F. Shogren taught his classes to think about the design process in a rational manner, without losing appreciation for individual talents. He was able to communicate with each student individually. In addition to what he taught, he also gave us an appreciation for what we had not learned, or could not understand." And noted a 1976 graduate (BED): "The man showed me enough possibilities to keep me occupied for a lifetime."

The next nine other faculty members, in descending order of number of times mentioned, were: Duncan Stuart: "His ability to synthesize from a vast body of knowledge in

many disciplines was incredible to any of his disciples." Henry Kamp-hoefner: "His desire to have a superior school lifted us all to higher levels of academic and professional performance." Harwell Hamilton Harris: "... was inspirational in that he projected an extraordinary personal sensitivity to the 'art' of designing a building in the face of major 'movements' then current." Brian Shaw-croft: "He exposed us to the real and practical problems that an architect can be expected to face in the real world." Henry Sanoff: "For giving me the basic tools to begin understanding human behavior in the built environment." George Matsumoto: "He was direct, soft spoken, excellent with modular design, economy of materials, detail... he considered his students to be mature adults, potential competitors." Joe Boaz: "A true professional. Taught me a lot about the fact that buildings physically *had* to go together without leaking." (Matsumoto and Boaz received an equal

number of mentions.) John Reuer: "By impressing me with the need and delight of wholistic design, the joy of applying the simple logic of good design to everyday life." James Fitzgibbon: "Was my turning point in the real pursuit of creative architecture." (Reuer and Fitzgibbon received an equal number of mentions.)

beauty and make a product. School today is producing too many sociologists, etc. We should be producing design oriented businessmen to survive and to compete against the money hungry contractors who are producing abominations of projects yet selling the public on economy and need.”

Other graduates took the opportunity not only to note the need for more understanding of business for all graduates, including themselves, but to complain about recent graduates’ shortcomings, especially an inability to draw and a lack of technical knowledge. “Teach them the basic skills, for God’s sake!” implored a 1968 graduate. “All NCSU is turning out now are namby-pamby generalists who hardly know which end of the pencil to draw with. The tragedy is that the poor unsuspecting student doesn’t know what is missing until it’s too late.” Complained a 1960 graduate now practicing in Winston-Salem: “Recent graduates have far too little technical knowledge. Too philosophical in wanting to say what should be done but do not have the means to do it.”

However, another member of the class of 1960 cautioned against downplaying design, “otherwise, we’re turning out mechanized draftsmen.” And a more recent graduate who received a Bachelor of Environmental Design in 1973, later went on to receive a M. Arch. from Princeton and now practices in Winston-Salem sounded a similar caution. “A broad exposure to design theory and ideas, new technology, basic knowledge of structures are necessary,” he said. “Exposure to courses offered by other departments are essential to the education of an *architect* rather than a *technician*. In my opinion, the purpose of an education in architecture is not to duplicate what can be learned in the practice of architecture or to simulate practice in any way. The purpose of an education is to supplement what is learned in practice; to expose the student to things which will not commonly be available to him after his graduation.”

Three other recent graduates, all from the class of 1974, illustrate the classic difference in opinion over the role of architectural education rather well. One, who received a Master of Landscape Architecture from Harvard after receiving a BED in Architecture from the School of Design urged “solid training in basic design skills and learning a problem solving technique. There are many schools turning out good ‘detail’ men. N. C. State’s School of *Design* has the basis for really living up to its name. In this day and time, this still is rare.” But a classmate who received a BED in Architecture from NCSU, dropped out of school’s M. Arch. program after one semester and now is working as a project manager for an architecture firm noted: “The SOD is *not* training anyone for the field of architecture. They teach design and design is only part of architecture. I learned a lot about design at the SOD but most of what I know about the practice of architecture was learned *after* I graduated. Get your heads out of the clouds and teach the students something they can use to survive with after graduation while they learn architecture.” And still a third, working in a non-design field as a church organist and choirmaster noted: “From the viewpoint of a non-practitioner, I feel the SOD must, in fact, be all things to all people. For those whose goal is professional practice, its chief responsibility is to cultivate sensitive, thinking individuals, persons acutely aware of their surroundings and be able to effectively deal with problems of various nature.”

Indeed, many recent graduates seem less concerned about their training for jobs than are the people who are hiring them. A 1973 graduate working for the AIA Research Corporation in Washington, D. C. wrote: “A school should provide the flexibility for several justifiable orientations. If a student chooses to take the traditional route, then that educational path should be available at the school. If a student chooses to

take an alternative role, then the curriculum should allow such (as long as it fits within the broad concept of architecture). My personal bias is that schools should be more design/technology oriented—that is, an equal blend of the two.”

Many graduates, however, see the issue as completely black or white. A 1968 graduate (B.Arch.) urged “More orientation to practice in the ‘real world.’ Let them know architects have to do a few colonial buildings now and then. Don’t glamorize so much.” A 1976 graduate (BED) working as a draftsman, however, was appalled at that attitude. “I think there should be more orientation to practice in that a student will know what to expect and how to cope with a less than ideal situation without sacrificing his values,” he wrote. “The school should try to convey the attitude of giving every job the best he can—to try to improve the human condition and to keep that his number one goal—not to let money be his purpose for practicing . . . I think a lot of architects should quit giving students just out of school a negative outlook on the field.”

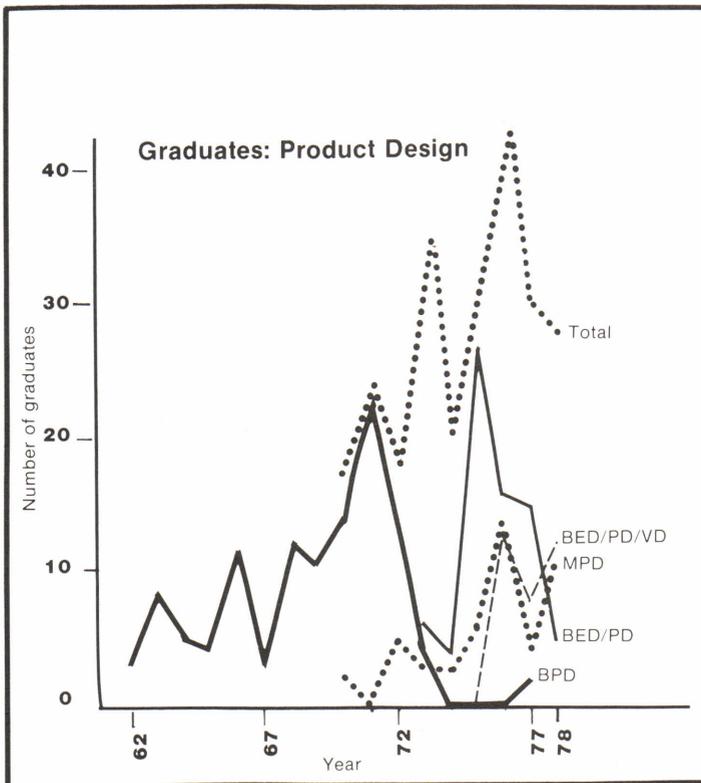
But at least one graduate kept his sense of humor. A 1970 graduate practicing in Montgomery, Ala., he wrote: “Teach people how to think about things; encourage travel and contact with people who do things differently. For God’s sake, don’t bother them with details of daily practice since they will get that cold towel slapped in their faces soon enough. Tell them they need to eat, too, so ask for a lot of money when they get out of school. But don’t be surprised when they don’t get it. They’d be in engineering if they wanted money, anyway. Also, never fill out any job application forms that say neat printing is a very important factor.”

Product Design

From its founding in 1958 to 1977, the Product Design Program graduated 294 students. Of the 19 (6.5%) who answered our questionnaire, 15 were male, four were female. Seventeen had received bachelor's degrees and three had received master's degrees (one had received both). Nine (47.3% of those responding) had received some other education or degree, ranging from an AA from a community college before entering the School of Design to a MFA from Stanford University after graduation. Two had studied psychology, one as an undergraduate before entering NCSU, the other as a graduate student. One had received a BS in food science from NCSU; one had received a diploma in piano technology; one had attended the N. C. Truck Driver's School. Twelve (63% of respondents) are now working as designers or in design related fields. The graduate who had studied food science is a vice president for marketing and development for a food company. Others include graduates working as a musician, a Naval officer, a piano technician, a greenhouse operator and a quality inspector for a hosiery firm.

The graduates' most common reason cited for not attending graduate school after the School of Design was the desire to leave academia and work in the "real world." Many thought they could learn as much from work as from study. Other reasons included poor grades as undergraduates and lack of money. Those attending graduate school usually cited the desire for professional growth and specialization as their reasons for seeking more education.

Many graduates agreed that basic design, drawing and design studios were the courses they find most valuable to their work today, while they mentioned a variety of courses that they find not helpful. Those ranged from "all courses taken outside the School of Design" to design history to technical courses.



Graph by Dot Stell

Graduates mentioned 13 individual faculty members whom they felt had had an "especially profound influence" on them. The faculty member mentioned most often as a strong influence was Fred Eichenberger. "Fred made me work," said a 1973 graduate who this summer began a job as a piano technician with Steinway & Sons in England. "He showed me how to trust my instincts rather than others," said a 1969 graduate working as a musician in Atlanta. Three other faculty members, Harry Macke, Vincent Foote and Don Masterton followed Eichenberger with an equal number of mentions.

Many graduates said they felt the product design and visual design programs should be more oriented to a professional practice, though none expressed dissatisfaction with the teaching of design. "Establish the basics and a good design sense early, and then apply them in practical 'real world' problems," wrote a 1973 graduate teaching

commercial graphics at a technical institute. A 1977 graduate inspecting hosiery for a living suggested that "More exposure to the working world of design would be profitable and, if possible, some intern work in the field would be beneficial." "It seems to me," noted a 1974 graduate working as a graphics designer for the state Department of Transportation in Raleigh, "that most students who graduate in a few months still are unaware of the possibilities of job opportunities and varieties available in the visual design field. A broader exposure to these various types of jobs that a visual design graduate can be capable of needs to be brought more to the students' attention... too often, the visual design graduate is

shuffled into commercial art or an ad agency instead of what might be better suited as a textile designer, type expert, etc." A 1973 graduate now in the Navy had a similar complaint—but his was about employer's lack of awareness: "My most important thought is: The School of Design needs to educate applicable industry wheels as to what 'product design' graduates can do. I have seen too many PD graduates become carpenters (or Naval officers) because the industry they were trained to serve is not aware of their potential contributions and/or existence. I am in the Navy partly because of the summer of '74 energy crisis and partly because no one had heard of product design!" But some graduates do not seem to mind this confusion. The musician in Atlanta wrote: "Although I did not go into the design field after graduation, I would not trade my education for anything in the world. My education at the School of Design prepared me for coping with situations and people as no other course of study could have. I feel that lifestyle involves design principles if one life is concerned with any creative endeavors."

Landscape Architecture, which began with the school in 1948, graduated 240 students through 1977. Thirty-nine (16.25%) answered our survey, 31 of whom were male, seven of whom were female and one of whom gave no answer. Twenty-six had received undergraduate degrees from the School of Design, 12 had received graduate degrees and one had not graduated (but later received a BLA from Berkeley). Seventeen (43.6% of respondents) had other education or degrees, ranging from a post-graduation fellowship at the American Academy in Rome to undergraduate degrees (before NCSU) in botany, conservation or geography to graduate degrees (after NCSU) in landscape architecture from other universities (two from Harvard). About an equal number of those students who received masters degrees from the School of Design had undergraduate degrees in non-design disciplines such as English, American Studies or economics as had degrees in landscape architecture. Twenty-two (56.4%) are now registered landscape architects; 17 of those (77.3%) are members of ASLA. Every respondent was currently working either as a landscape architect or in a related field or had done so in the recent past. Two were in education, one was a graphic designer, one was an artist/craftsman, one was a developer.

Most students who attended graduate school after the School of Design did so to specialize or to qualify to teach, to "expand horizons," pursue research projects or "to learn more about plants." Those not attending graduate school often said they did not seek more education because they could find satisfactory work without it. "Not a prerequisite to employment. I felt that working with competent employers offered a better training media than the theoretical concepts of graduate school," answered a member of the class of 1951 (bachelor's degree) who now is the principal in his own firm in Louisville, Ky. Noted a member of the class of 1972, (also a bachelor's degree recipient), now a principal of a one year old landscape architecture firm in New Orleans, La.: "At first, I didn't have the inclination for more schooling and academic abstractions. Now, I believe my educational needs can best be fulfilled through personal study."

While several graduates mentioned that *all* their courses at the School of Design have proven valuable to them today ("I never took a course I could have done without," said a recipient of a bachelor's degree in 1974), the courses mentioned most frequently as important were design and landscape studios and plant materials courses. Another 1974 graduate (this one with a master's) said simply that the most valuable courses were "The independent study course with close supervision" and the least valuable were "The independent study course without faculty interest." Others mentioned courses that should have been added, such as business administration and technical writing.

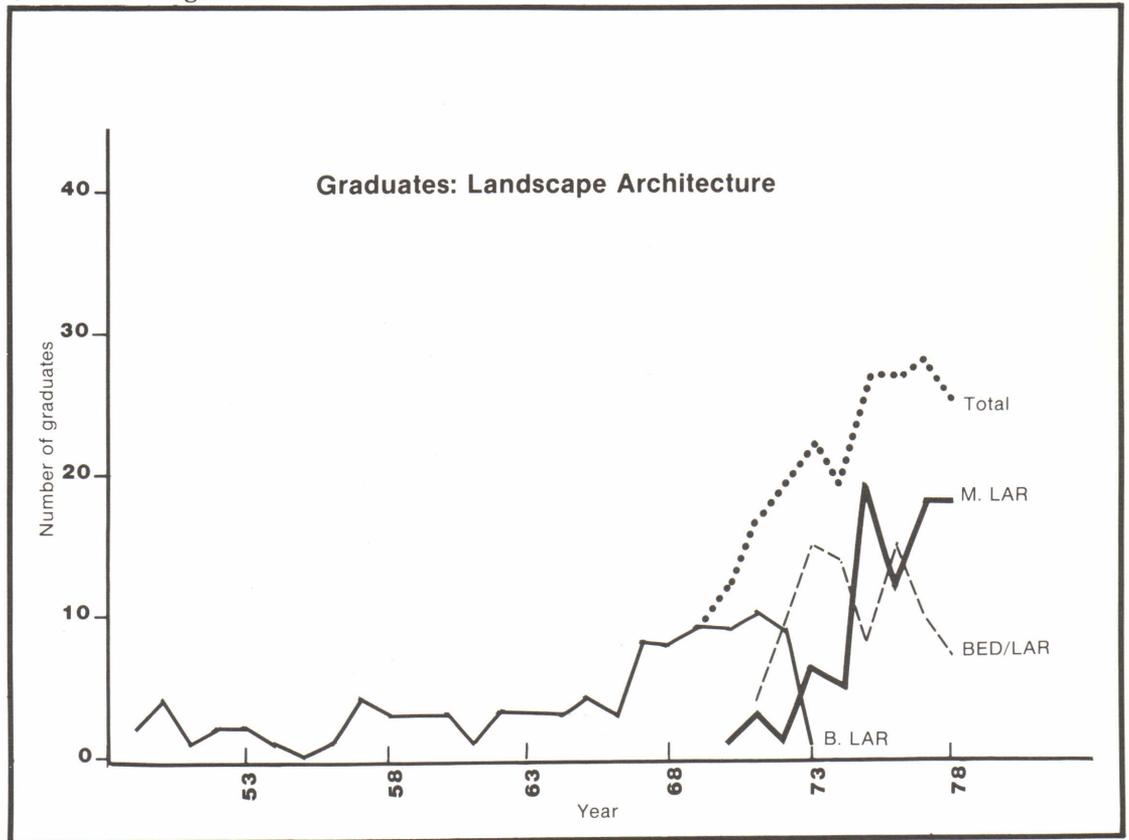
Thirty-three individuals (most graduates named more than one) were mentioned at least once, but the faculty member who graduates recalled as most influential was Gil Thurlow. "Gil Thurlow was practical, had some common sense, demanded a quality product and discipline from his students, took pride in his work and students," said a member of the class of 1962 (bachelor's degree) now practicing landscape architecture with the U. S. Army Corps of Engineers in Wilmington. A student who graduated with a bachelor's degree ten years later in 1972 said Thurlow "provided time and encouragement; also taught the design basics and stressed their importance." Mentioned next most often after Thurlow was Dick Wilkinson; next, with an equal number of mentions were Lawrence Enerson, Joe Cox and Lewis Clarke.

A 1951 graduate (bachelor's degree) now superintendent of planning and research for the Memphis Park Commission summed up many graduates' feelings about design emphasis versus practical emphasis when he said simply, "design must dominate, tempered with practical application, experience and detail." Most respondents would combine the emphasis on design and practice. But there was feeling among many practitioners that students today are not getting enough practical knowledge. And many of the recent graduates agreed. Wrote a member of the class of 1965 (bachelor's degree), now practicing in Asheville: "All of the above (design, practice and exposure to other disciplines, should be emphasized) especially in areas of technical training for construction: grading, knowledge of plants and other *practical aspects so they could be of some value in implementing ideas into plans of reality.* Any idea of students receiving philosophy in school and later being trained for work within a

private office is for the birds. Students should be ready upon graduation to do work of value to private practice. Graduates should gain some experience in summers, vacations, etc. even if they have to work for free." Another 1956 graduate who received his bachelor's at NCSU, worked six years as a landscape architect, then received his master's from the University of Georgia and now teaches landscape architecture at Ohio State University wrote: "In a nutshell, NCS students are (?were!) being taught to "think." The trouble was, they couldn't do anything except "think about it." None of my fellow classmates would hire a recent/current (?) graduate because they were "use-less." As an educator, I firmly believe in logic, philosophy, art, music, etc. as valuable assets, but somewhere, a student must be forced (if necessary) to decide and act and be responsible for his actions. One can't just "think about it;" Sooner or later he/she must do something about it." And recent graduates complained about the lack of marketable skills. Noted a 1974 graduate with a bachelor's degree: "Play a better role in teaching students that there is more to the world than philosophical design solutions. They need to be better exposed to business and financial problems, have a good knowledge of business law, marketing and the most important: selling. The most important factor, I believe, that makes or breaks any School of Design graduate is his ability to sell. First, himself, then his product." And noted a 1977 graduate with a bachelor's degree: "In training students, the landscape school could concentrate either on more design or more practice and still be ahead of where it is now. The undergraduate program is not rigorous because it is 'undergraduate' and the graduates do nothing but talk because they were supposed to learn the 'hard' stuff as undergraduates or are smart enough to pick it up on their

own." On the other hand, a student with a bachelor's in English who received a master's in Landscape Architecture that same year, 1977, wrote when asked the question of design versus practice: "It is really hard to say. I feel that basic skills geared to bread and butter practice should be required definitely at the undergraduate level and possibly even at the graduate level, so we can get a lot of people off our backs by being able to perform tasks they think we should. But one reason I chose the school, and praise it every chance I get, is that I was able to construct my own program. I may not be able to perform basic tasks, but that is not because the school was at fault. I wanted to learn other things, and I did." And, finally, a 1972 graduate with a bachelor's degree in

landscape architecture who is now practicing graphic design in Texas wrote: "This is an age-old argument. However, I'd have to side heavily with a design oriented curriculum. The practice of landscape architecture or architecture is so individualistic according to the firm. Usually a rookie is not even allowed to dabble in design for several years. Therefore, the more idealistic and conceptual the schooling is, the broader the range of design issues a student will be exposed to. Also, there is a goal in sight for someone who is doing nothing but drafting."



Graph by Dot Stell

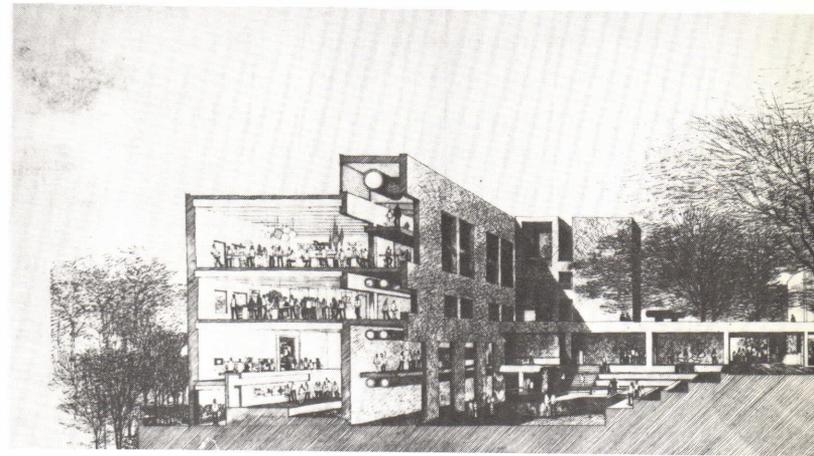
The School of Design
Addition is big,
ambitious and filled
with architectural
messages

By Ernest Wood

In one way, at least, the opportunity to design a new building for the education of architects, landscape architects and product designers would place any architect in an enviable position. With a group of designers as a client, the architect would be assured of a demand for excellence. But with designers as clients, the project could be a mixed blessing as well. Would the client be too critical and too demanding in a second guessing "I-wouldn't-have-done-it-that-way" manner? Would the teaching and student designers want to inject their own ideas too often into the architect's plans?

As it turned out, the new addition by Wolf Associates of Charlotte for the School of Design at N. C. State University in Raleigh does indeed reflect the ideas and priorities of an unusually large number of designers—the client designers as well as the designing architects. But as the building opened for classes this fall, both the client and the architect were pleased with the way the process of designing it had worked out. "It was a very special kind of linkage that developed between the architect and the client," recalls Claude E. McKinney, dean of the School of Design. The process was long (six years since the General Assembly authorized construction and appropriated funds) and, concedes Robert P. Burns, professor of architecture and chairman of the building committee, "somewhat inefficient." And it was a tough assignment. "The School of Design is a bunch of critics," says Burns. But the architects knew the job would be tough. And they knew the building committee wanted to participate in the design to a greater extent than most clients do. And says Wolf Associates' Marley P. Carroll, project architect for the job, "I think the building is much better for it."

What the building is, in the end, is a reflection not only of the functional needs of the client—the studios, offices, lecture rooms and other spaces that are required for a School of Design—but a reflection of architectural principles that the faculty wanted to impart to the students, of qualities of buildings that the faculty and students enjoyed and wanted for themselves and of architectural trends of the mid 1970's. It is an amalgam of many ideas—a "grab bag" of possibilities for the architects to pick from, in the words of building

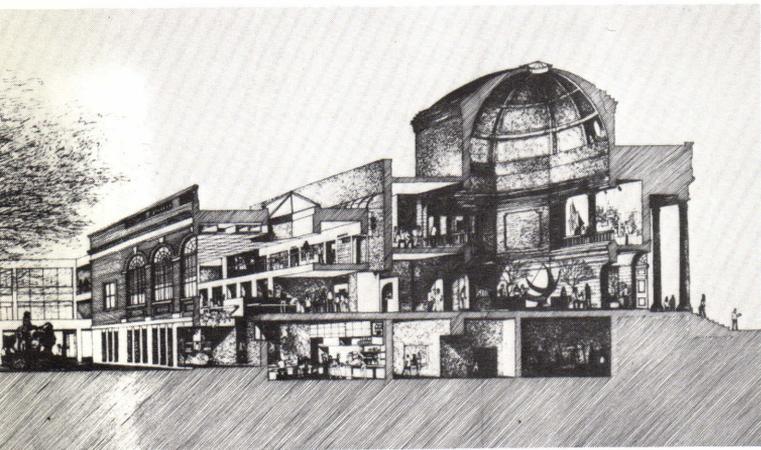


chairman Burns—crystallized in the design idiom of Wolf Associates.

For example: By exposing the precast concrete structure and the mechanical systems, the design reflects an educational concept that students can and should learn from their own building how architecture functions. But these exposed systems also mirror current styles of "high tech" architecture — though the architects have resisted the temptation to paint pipes and ducts different colors and have opted instead for a more sedate and dignified white, which is more in keeping with the brick and oak finishes of the rest of the building.

Another case: The architects have reflected the building's relationship to adjoining sections of the campus and to established traffic patterns (a street used to run where a courtyard is now) by including pedestrian colonnades on the ground floor that anyone, not just those in the School of Design, may use. But those colonnades also reflect an appreciation for the qualities of the older buildings on campus. The site's former occupant, the old university YMCA, also had a colonnade; and the new colonnade and fenestration above reflect the fenestration of the adjoining neo-Classical Brooks Hall, the main School of Design building.

(Meanwhile, Wolf Associates, working with Professor of Architecture Roger Clark of the School of Design as a designer, has done even more to tie Brooks Hall to the addition by renovating the administration area of the old building and in a different way combining architecture of the '70's with appreciation of the past. This renovation—also finished in modern white and natural wood but retaining and emphasizing original classical details of arches and mouldings—has been appropriately dubbed "Nexus," a connection, tie or link. Working independently of Wolf, Professor Clark has extended the renovation to include the School of Design library, in which he has employed more color than in the other section of the building. But he nevertheless has skillfully blended all the work. Dean McKinney reveals a lot about the entire School of Design complex when he says of the renovation: "I'm not interested in remaking the building as much as opening up for the students a unique architectural



experience. Because there's nowhere else on campus like it.")

For years now, people have been fiddling with the School of Design complex. This is the third—and most ambitious—addition. The main building, Brooks Hall, designed by Hobart Upjohn of New York City and completed in 1927 was the old university library. It closes the east side of the complex and is the most publicly visible section. The north wing was added in 1956, when the School of Design, which had previously been housed in old barracks on campus, took over Brooks. Designed by George Matsumoto, then a professor at the school, in association with F. Carter Williams of Raleigh, the Miesian wing won an honor award from NCAIA in 1957. A south wing of lesser distinction, a brick box with vertical bands of windows and a mansard-like roofline designed by Cameron Associates of Charlotte, was added in 1966. The new addition encloses the west side of the complex.

In 1972, the General Assembly appropriated \$1.2 million for a 35,000 square foot addition to Brooks Hall (later, because of rising costs, the university raised the sum to \$2 million; the completed building is 37,000 square feet) and immediately the School of Design became unusually involved in the design of the new building—from screening and making recommendations on which architects would design the building, a function normally left to the university, to a special event in October 1973 called "Garden Day," in which classes were suspended while faculty and students met with the architects from Wolf Associates to talk about what the new building should be. Later, the Wolf Associates drawings and plans were displayed in the halls of Brooks for students and faculty to study and offer their reactions.

This addition is a building that is much more complex than the other two, however—and much more complex than it at first appears. Its program is relatively simple, as were the others: classrooms, offices, a large lecture hall and (principally) studios, large open areas reflecting the time-tested method of teaching design in which each student has a work station with a drafting table and the instructor circulates to meet with each individual to discuss the project at hand. But the client wanted more than simply the big open spaces that accommodate most design studios.



Far left: Section, School of Design complex, with the addition at Left: Brooks Hall at right

Left: School of Design Addition, east side, facing Brooks Hall

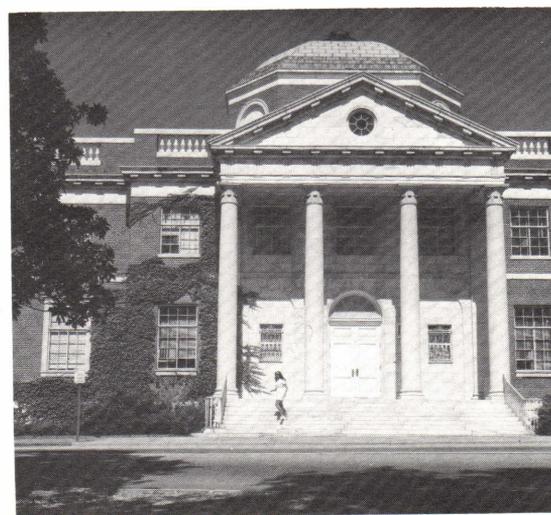
Below: The "Nexus" renovation, School of Design administration area, Brooks Hall

Bottom: Main entrance, Brooks Hall

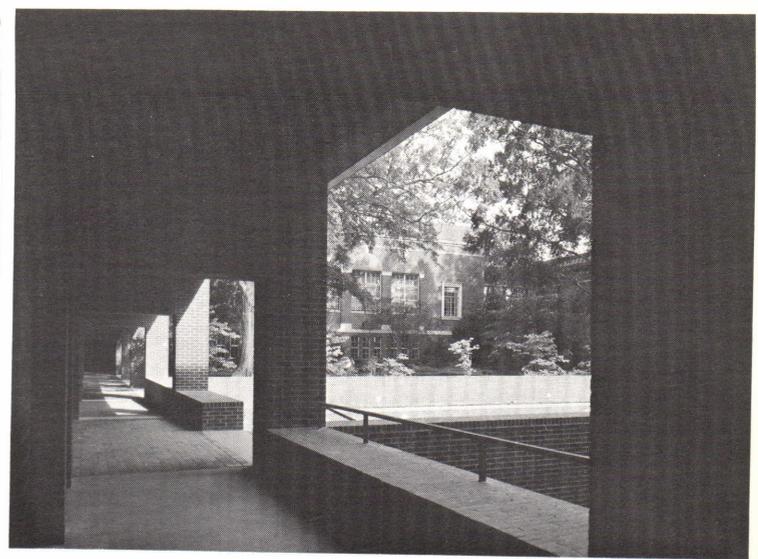
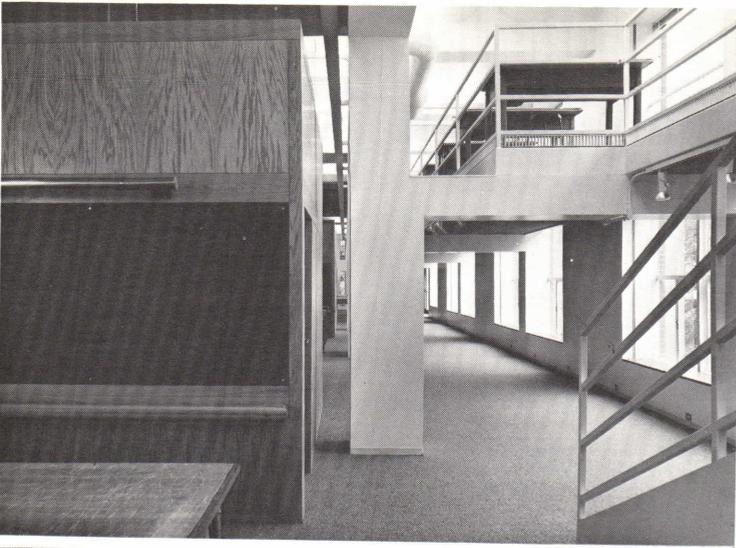
Gordon H. Schenck, Jr.



Bill Bayley



Brian Shawcroft



Above, left:
Newly completed studio,
with mezzanine

Above: Brooks
Hall, from
under the
pedestrian
bridge connecting it with the
new addition

Left: Architecture studio in
September
after the beginning of classes



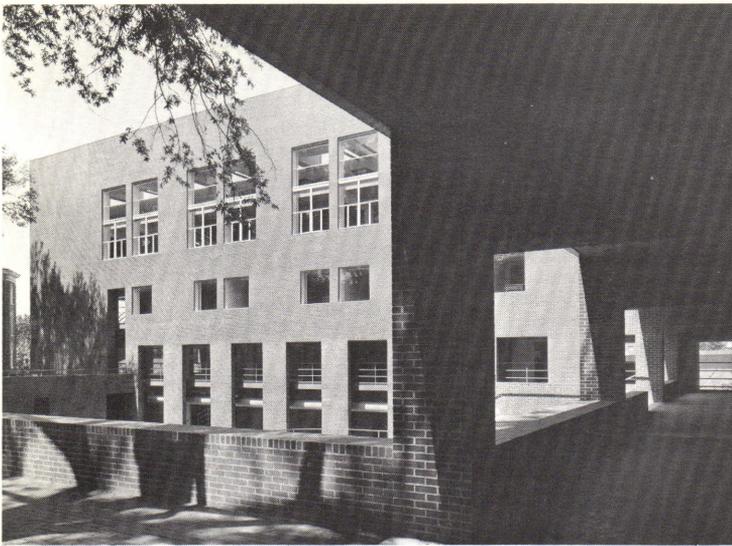
Out of “Garden Day” and meetings between the architects and the building committee (composed of five faculty members and two students) came an elaborate list of priorities that became the basis for the building. That statement included 50 points ranked in a hierarchy of importance, many of which can be seen in the completed building: the need for a sheltered connection with the old building; the need to use the addition as a way of maintaining the “sense of enclosure” of the School of Design garden; placing mechanical equipment out of earshot of the garden; providing informal areas to de-emphasize distinctions between graduate students, undergraduates, faculty and staff; providing for a variety of activities not only to occur simultaneously but to be observed simultaneously—from a variety of places.

There were other, more subjective qualities that the school sought as well, however, qualities that would give, as building chairman Burns now recalls, a sense of “a fragment instead of pristine . . . eroded rather than new . . . undesignated space.” Architect Carroll recalls that another professor came up with the concept of “found space” as one which people always enjoyed in old buildings—and which the faculty and students had enjoyed in old buildings they had used as temporary studios on campus—and which should be included in the new addition. Some early thought had been given to adapting the old YMCA instead of constructing a new building but the structure was deemed in too bad condition to save. But many people, notes Carroll, himself a graduate of the School of Design, recognized that the older buildings on campus had qualities that the new ones lacked. “Would it not be better,” he recalls they asked, “to identify these qualities and capture

these qualities?” So inside, there is a variety of spaces, eccentric spaces, perhaps: one studio is two stories tall; another contains a mezzanine with room for about a dozen work stations; small alcoves adjoin large studio spaces.

Yet the School of Design addition is without a doubt a modern building. And it is a building in the Wolf tradition of excruciatingly detailed architecture. The architects were given so many ideas to work with that instead of being constrained they had an extraordinary rich base of ideas to work from. And that “grab bag” of possibilities could accommodate almost any number of architectural interpretations and still satisfy the program. A few Wolf details that grew out of those 50 objectives: Offices and small seminar rooms are large, red-oak boxes that the architects envision as large pieces of furniture placed to break up the expanses of studio space. The service towers are separated from the main building by gaps of space and elsewhere in the building different functions are defined by separation of building elements. The building’s precast prestressed concrete frame is clad in unadorned brick veneer pierced by strategically placed windows to selectively let in or keep out the sun. Materials (brick) and scale (the cornice lines up with the top of Brooks) are calculated to harmonize with the existing buildings.

As school began, however, the building still had some settling down to do. Intentionally a “hard” looking, sharp edged piece of Modernism, it rises on the west side sharply and starkly from the edge of Riddick Parking Lot (the old football stadium) and the east side, which faces Brooks Hall, seems much taller than the old building because it rises four stories from a sunken plaza (intended to be used as an outdoor classroom)



Above: *School of Design Addition, from under the bridge to Brooks Hall*

Above, right: *Mezzanine studio, before classes began*

Right: *Mezzanine studio, with classes in session*



where the old YMCA, had its basement. The mass, however, should be broken down by landscaping (by Lewis Clarke Associates of Raleigh) that will include Virginia creeper that will be allowed to climb the walls of the building.

Inside, the building will undoubtedly see some softening as well. For all its careful detailing, this area will be dominated by the students' work stations, their drawings, their models, their bicycles, their dogs, their radios, their clutter—and it will change every semester as students rearrange their work stations, as the studio projects assigned to them change. It will change much more from day to day and year to year than an ordinary classroom building will. The school said it wanted "multiplicity and variety" in its new building. Says architect Carroll, "I'm sure that there will be a lot of surprises about how it's used—how people respond to it."

This first year, the addition will be the exclusive domain of the Architecture Program. And while many of Wolfe's subtleties in such details as separation of functional elements would hardly be noticed by the general public, they will not only be noticed but they will be analyzed and dissected for years to come (for better or worse) by the students and faculty who will use the new building. This is a building that grew out of an intense intellectualization of the nature of what architecture is and what sort of spaces should be provided for the education of designers. The results of that intellectualization can be seen in the building, sometimes hidden, sometimes blatant, like the children's picture puzzle in which cows or ducks are hidden in clouds or trees. The building's test will be in whether or not the intellectualization about the

architecture will matter years from now and whether or not the architecture will continue to convey those original objectives when they are not so fresh in everyone's recollection.

Now that the process has received satisfactory marks, that the architects have succeeded in satisfying the specific requests of the many clients, attention will turn to the building itself. Already, it has won a design award. In September, the South Atlantic Region of AIA presented Wolf Associates with an award of merit for the building, and Charles Gwathmey of Gwathmey-Siegel Architects, New York, the juror who visited the project to give it final approval called the School of Design addition "terrific."

The next test, however, will ask: How will all that intellectualization serve the needs of education? Will the themes of "found space," "multiplicity and variety" and the other larger concepts of architecture turn out to be most important? Or will other work-a-day world concerns—the question, for example, of whether or not the interior is too finely finished, whether carpet is appropriate for a design studio and whether the white studio walls and oak office and seminar walls will hold up when students tack and tape their drawings to them—turn out to be the dominating issues? These questions will arise (or will not arise) and will be solved (or will not be solved) only as the building is used. This is what happens with any new building.

The ultimate question, then is: Will designing for designers turn out to be any different than designing for any other client? Stay tuned. ■

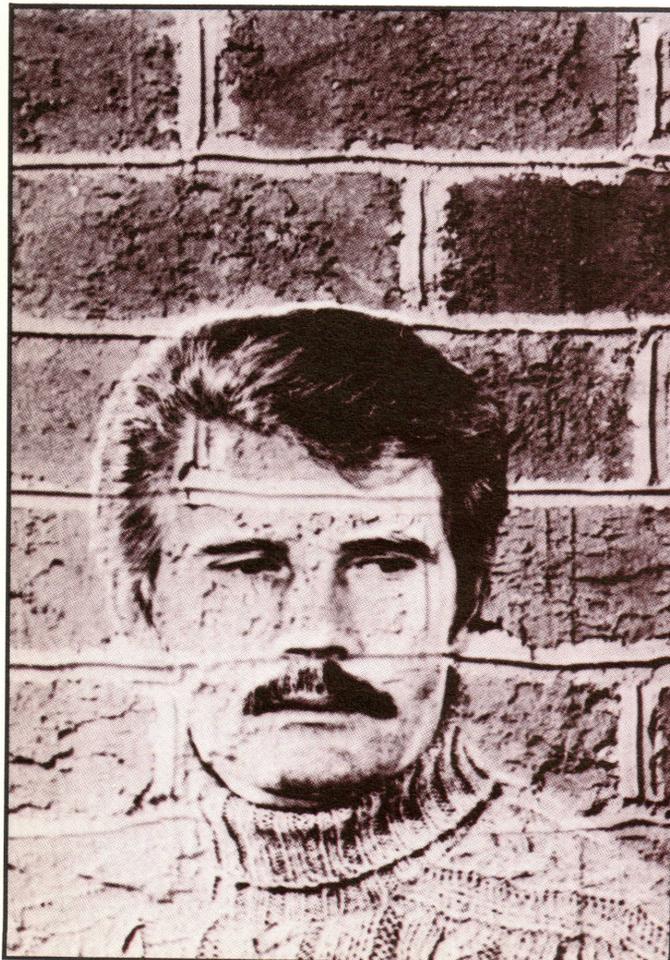
Ernest Wood is editor of this magazine.

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Other Schools

The state strives to meet the many different needs of students in design

Besides the programs at the NCSU School of Design, the State of North Carolina offers education for design at other institutions. The offerings range from two year technical to five year professional programs. Most are architecture-oriented. Some are relatively new, such as the architecture program at UNC-Charlotte and the architectural technology programs at community colleges. But architectural engineering at A&T in Greensboro is a long-standing professional program. Together with the School of Design, these programs provide a wide variety of offerings for the student seeking a career in the design fields.

UNC-Charlotte

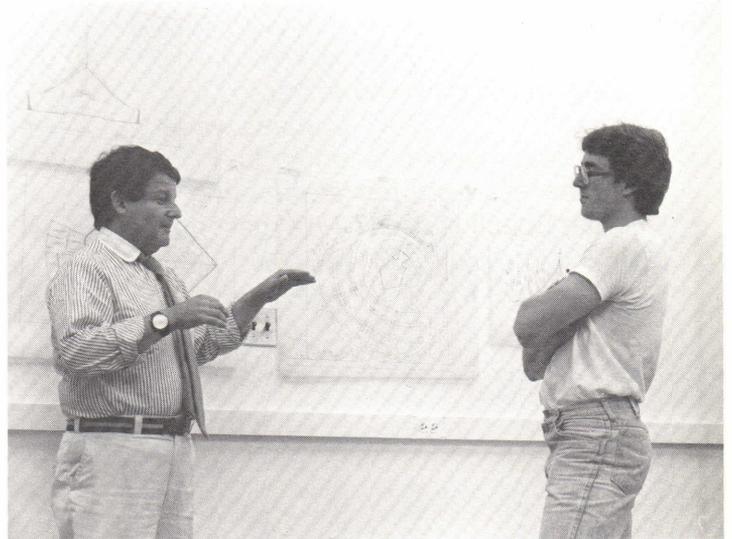
By Charles C. Hight, AIA, PE
Dean, College of Architecture
UNC-Charlotte

UNC-Charlotte's five year, Bachelor of Architecture Program founded in 1970 is comprised of a Foundation Program (first and second years), Architectural Development (third and fourth years), and Advanced Program (fifth year).

The Foundation Program concentrates upon students obtaining a broad and basic understanding of architectural programming, physical environmental and design relationships, visual ordering, architectural precedents and theories, structural-material behavior and spatial organization through mainly analytical studies and some synthetic experiences. Visual communication skill development is achieved through their inclusion in the aforementioned studies.

Besides stressing building design cultivation, the Architectural Development Program includes extensive qualitative and basic quantitative studies of structural and heating-cooling phenomena, systems/user-need examination, architectural theory investigation, landscape-site design studies and North Carolina small towns development.

In order to provide students with an option, a Bachelor of Arts in Architecture degree is awarded at the end of the fourth year. Thus, students may choose to: complete their architectural education at UNCC or another school, engage in graduate studies in City Planning or another allied profession, use the



Stanley Tigerman, left, discusses a studio project with a student at UNC-C

experience as an excellent general education for pursuing other endeavors or work for an architect for a year or two before returning to school to complete their architectural studies.

The fifth year primarily focuses upon students further developing their architectural skills, examining major environmental design issues and studying professional practice development.

During the past two years, the College of Architecture has devoted considerable energy and time in strengthening its educational milieu. A major focus has been upon both articulating each curriculum component and reinforcing the linkages between studio and non-studio courses (architectural and non-architectural) as well as between studio years.

At the root of the endeavors is a commitment by the faculty to develop shared purposes and agreed upon principles. Though the staff of 13 full-time and six part-time persons represents an extremely broad

range of expertise, experiences, cultural backgrounds and philosophies, the faculty has dedicated itself to the doctrine that a program is an ordered sequence of events and experiences. While this attitude certainly "makes sense," it is contrary to today's commonly held attitude that each person has an inalienable right of "doing his own thing." It is the College of Architecture's contention that freedom, academic and non-academic, occurs through shared responsibility and objectives. In so doing, each person is able to realize individual fulfillment as well as to achieve a common good.

This task is being accomplished through a continuum of faculty-student council seminars where educational, architectural and societal issues are discussed until a consensus is reached. One of the premises of the program is the belief that an architectural graduate must be both skillful and thoughtful. In fact, the College of Architecture believes that architectural skill develop-

ment, acquisition of knowledge and the cultivation of thinking are inherently supportive of each other. Thus while renewed attention is being given by universities to concepts of general versus professional education, it is the college's contention that these are essentially not in conflict, and that a graduate must have both marketable architectural skills at the time of graduation as well as being creatively responsible, thoughtful and committed to continued learning.

Another premise is a commitment to multi-disciplinary efforts, that major environmental problems can only be resolved through the inclusion of knowledge and skills of many disciplines. Consequently, the College of Architecture has joint endeavors with programs such as physics, religious studies, history and geography. In fact, the College promotes students pursuing its "double major option."

A third premise is seeking a

balance between analysis and synthesis whereby students do comprehensive and in-depth analytical studies of various environmental issues and subjects, and synthetic experiences where students bring together the various aspects of a problem and create solutions which respond to the issues. To assist its accomplishment, the college has strengthened its visual communications endeavors so that graphical development is an integral part of the problem identification, alternative examination and design resolution processes. Therefore, courses in the first through the fifth years promote achievement of graphical competency as a means of solving problems.

Moreover, the College of Architecture is dedicated to minimizing the schism between architectural education and practice. During the past two years, about two dozen practicing Charlotte architects have been involved in the program through teaching courses, giving

lectures, serving on design juries or being advisors to fifth year students. In addition, a number of nationally respected practitioners have taught or assisted with design studios, including Alex Cvijanovic (The Architects Collaborative), Charles Gwathmey, Peter Eisenman, Stanley Tigerman, Paul Lu (Sasaki Associates) and Bruce Goff.

The college is presently establishing a multi-disciplinary Masters Program in Community and Metropolitan Development and plans to expand its studies in site and interior design. Thus while it expects some increase in its student body size of approximately 230, the major growth will be in a "fleshing out" its well grounded nucleus and an emphasis on accreditation.

The advisory visit in the past Spring by the National Architectural Accreditation Board was quite positive and the school looks forward to a formal visit in either late Spring or early Fall 1979.

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A&T

It is the aim of the program in architectural engineering at A&T State University in Greensboro to encourage and develop students who exhibit creative ability and who exhibit the ability to grasp and use scientific principles for professional careers in the art and science of building. Strong emphasis is placed on training in the building sciences and on training in engineering as it applies to the design and construction of buildings.

Engineering science, architectural history, design principles and theory, together with architectural and engineering communicative skills are used to develop ideas and concepts for solving planning, design and construction problems for buildings. Study is given to the control of the building environment by the proper selection and design of electrical and mechanical systems. Attention is also given to problems of acoustics as they may affect the quality of the building environment. Courses in management and professional practice are included in the program. The selection and design of structural systems and construction methods and the selection of materials are studied.

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The architectural engineering program also provides considerable training in general education which is devoted to study of social and physical sciences, art, English, mathematics and the humanities.

Introductory courses in architectural engineering and a large percentage of the required general education courses are scheduled in the freshman and sophomore years. This training provides background for the study of basic engineering science and the study of more professional courses which are scheduled later in the program and divided into four divisions: 1) graphics, architectural design and architectural history; 2) environmental control, electrical and mechanical equipment of buildings; 3) professional practice, management, materials and methods of construction; 4) structures. Each of these divisions has specific course requirements that are aimed toward developing the architectural engineering student as a professional in the field of engineering.

The five year program in architectural engineering leads to the bachelor of science degree and is fully accredited by the Engineers' Council for Professional Development.

Community Colleges

In addition to professional programs offered on the university level, the State of North Carolina offers through its community colleges and technical institutes programs which are geared for those persons who will work with the architectural profession in technical capacities. The Architectural Technology curriculum, developed in cooperation with the Education Committee of the N. C. Chapter, AIA and offered at 12 institutions, is designed to provide the individual with knowledge and skills that will lead to employment and advancement in the field of architectural drafting. The work of architectural technicians is to turn the architect's design sketches into complete and accurate working plans and

detail drawings to be used in construction. The technician will be involved in work requiring a knowledge of building codes, specifications and contract documents. After gaining experience, the technician may be involved in estimating, field inspection or in collecting site data and other information used in construction.

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Index to Advertisers

- 36 Acoustics, Inc.
- 3 David G. Allen Co.
- 36 Andco
- 2 Binnings Building Products
- 39 Borden Brick
- 4 Brick Association of N. C.
- 20 Cant Strip Manufacturing
- 21 Carolina Asphalt Pavement Assn.
- 36 Carolina Builders
- 34 Giant Portland
- 20 Gifford-Hill
- 9 Keane Monroe
- 37 Law Engineering
- 37 Ezra Meir Associates
- 36 National Mastercraft
- 2 Peden Steel
- 37 Professional Directory
- 34 Sanford Brick
- 6 Solite
- 8 Southern Engineering

Critique

For architecture students, the more things change, the more things stay the same

By Everett Lewis

The architectural profession, to the interested observer (or student), seems to be in a perpetual state of transition. Complaints with Modernism's lack of humanism and basic client sympathy seem to go back at least as far as the late 1950's when they first surfaced in the work of Norburg-Schulz.

So, architecture is in movement. What else is new? How does this pertain to the School of Design? Better yet, where does such an attitude (regarded as eclectic pluralism) leave that bastion of creativity, that idealistic surveyor of a brave new world, the architecture student?

In this post-Modern era, the student can be in one of three types of schools. One is primarily a technical school where the student is taught various necessities that will somehow lead straight to the practice of architecture. Or the student can be in a school still attempting to turn out a particular style of architecture. But (and this is the very best of all!) the student can have the luck to attend a school like the School of Design where he can become truly sensitive to the changing meanings and directions of architecture.

This change overtly embodies (even to the students of the school) an ever increasing awareness of the factors that allow design to occur: not only light creating form in space, but the psychology and recall of remembered transition, as well as the changing attitude toward the sterile flowing space. Not new concerns, really, just resurfacing ones.

Student attitudes toward these factors, as well as the period pluralism, manifest themselves in fairly direct

ways through their designs. Perhaps, then, categorizations, would most clearly define the ways I perceive relationships of the attitudes of the students to the contemporary projects of design.

As most graduates probably recall, there is a design elite. (I presume there always has been.) It is still a group intellectually ahead of the game. Their concerns (preoccupations) are with Corbusian formal relationships and even clichés, such as cubistic colors and sinuous curving walls slipping through space. Perception and ordering systems take precedence, with an emphasis on the model as tool. They, as a group, are inclusive, smart, young, loud and snotty.

Contrasting the design elite is the design *bizarrie* (or those who seem to want to end up with the Frank Lloyd Wright Foundation). Yes, those (or that student, since it is never a large group) translate the last latent dreams of the Master into eerie reality right down to cornice detailing. It is downright scary to stumble upon this work (design from the grave) in a critique.

Then, there are the "earth shakers." Descendents of the flower children of the 1960's, this group practices reverence to the mole (design underground) or homage to Herb Green (design for the forest). The typical flower child is cool, smart and constantly working with that greasy green clay. (This, perhaps fortunately, is the smallest group.)

There are those whose parents are architects and they, too, want to ply the old T-square. But they generally go to Hilton Head on weekends and they fit in with the world of

architectural practice more than with the academic world of the School of Design.

And, of course, there are always those who would shrivel and die if *P/A* lost their subscriptions. Their designs are flavored with definite tendencies of frenzy and certain overblown chic. Some of these adherents (and it is probably the largest group) are genuinely smart, trendy chic today (and *outré* tomorrow). They are the least overtly identifiable group, recognizable only if you have a good memory for recent award winners in the magazines.

Venturi is periodically (mal) represented and there is an occasional Rudolph lover.

But the sincere student (or aren't they all sincere?) who attempts to seriously solve problems without fitting into a group is still there and is really no better or worse than the others, just more secure.

So, it is obvious that the student population is generally a microcosm of the "real world." It's a mad, fun circus and there is "never a dull moment." There are charrettes and long all-nighters

over endless cups of black coffee at IHOP, plus all the other pleasures SOD alumni happily remember.

But there is more. All the current student beliefs would be impossible without the movement of the school in a more self-searching and ultimately more fulfilling role. The students no longer reflect a structural school but a loose gaggle of justifiable opinion and, although tradition is a very large part of the school, today's pluralism is a student affirmation of the method of instruction the school is creating.

In spite of the elite, the *bizarrie* and the "earth shakers," the students all seem to share a few common beliefs. The first is an almost intense interest in what they are doing and although constantly harping about "the way the school has gone downhill" they still rush and claw to get to studio like the proverbial lemming.

So *gestamkunstwerk* be damned. And semiotic dimensions to hell. The only unified student attitude is in the school itself and an ideal love and an application of the universal laws of the Mother of the Arts. ■



Everett Lewis, a third year student in architecture from Wilmington, is president of the N. C. State University student chapter of AIA.



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