

ONE: **2** : THIS SECOND ISSUE OF A STUDENT PUBLICATION OF THE
SCHOOL OF DESIGN IS DEDICATED TO THE GREAT GOD **MISCELLANY**
AND IS CONCERNED WITH SOME OF THE WIDE AND VARIED INTERESTS
OF MAN INCLUDING POETRY, POTTERY, ARCHITECTURE, THEATER,
GRAPHIC DESIGN, CINEMA, AND GREAT IDEAS, OLD AND NEW

Benjamin B. Taylor

PATRON SUBSCRIBERS

Leslie N. Boney	Wilmington, N. C.
Richard B. Diamond	Bennington, Vt.
Dean Henry L. Kamphoefner	Raleigh, N. C.
Charles E. King	Belleville, Ill.
Edward Loewenstein	Greensboro, N. C.
A. G. Odell, Jr.	Charlotte, N. C.
Jehu D. Paulson	Raleigh, N. C.
Progressive Architecture	New York, N. Y.
Owen F. Smith	Raleigh, N. C.
Ralph Walker	New York, N. Y.
F. Carter Williams	Raleigh, N. C.

*Lurtie truis si jeo la Rose quière,
Vous êtes franche et jeo suis fort lié.*

—JOHN GOWER.

IN PHILADELPHIA PRACTICAL- LY EVERYBODY LOVES MY BABY

Abstruse semanticist of personal adjustment:
When is a rose a rose?
Dante's buttonhole, visited by innocuous bees,
Dissolves: the montage delineates
The bomb-burst Paradiso of the junior Mussolini —
Isolation of the lethal vitamin:
Aesthetics subjected to ethical strain.

Allergy rash from the rose embraced.
Ambivalence of aloe: crucifix spike to embalming clove.
The bed of roses and the hair shirt:
The spiked nectar and the spiked bed.
Lord, may we die cured! —
A prayer to Heaven from the ham.
(La commedia e finita.)

The Bard of Avon notwithstanding
A rose under alias is attar-deficient.
The fluent Esperanto of the heart,
Elixir of the magic fount of Ponce,
Seeps through sands of volatility.
Hylozoic thinking in the language of the heart
Soliloquies in tandem supersede.

Nettled by your love, my sweet,
I stencil on your brow:
Platonic nymphomaniac
(The scarlet letter a parlor pink —
Ego-sharing of a paranoid;
Kissproof intellect, the crimson come-on,
Framing No without incandescence).

Sentimental supernumerary torches borne
By sanguine scene-stealers of overstuffed Wagner.
Weary bearers of the spear, hauberk, habergeon.
Fighters of lions, acrobats,
Riders atop glass hills,
Knights in slightly tarnished armor, listing to port:
Atalanta or Bust! (Oh, dem golden apples!)

Black market love on the exchange
Pays poor percentages.
Isolation-from-the-world plus YOU:
A desert island of potent poachers —
Escort service in the perennial cabaret,
The bowed-bass buzz and the boogie beat,
The gentle haze of smoke and gin.

Polish off a Messerschmitt at nine o'clock.
Import a fragment of Camembert moon.
Or stammer through the neo-social graces.
Monotonous beat of the Stein song:
Roses wrenched of attar-odor.
Employ the wireless scrambler to clear the air.
A rose is a rose is a punchline wowed by Lear.

—DONIPHAN LOUTHAN.

THE FILM IN ARCHITECTURE

The motion picture industry has thrown architecture around long enough. It is high time architects started throwing motion pictures around for awhile instead. By throwing around, I mean using the film as a servant of the profession. Hollywood uses architecture as a tool for its dramatic interests; conversely, there is no reason to suppose that the film medium does not hold great creative value in the process of architectural design.

The most obvious asset of the film is the fact that it adds the dimension of movement in time to an otherwise static, two-dimensional approach to architectural study and design via drawings and photographs. The camera "dolly" is one of the greatest techniques developed in the field in recent years, and of all the cinema tricks, dollying most nearly approximates the immediate, visual human experience of walking through a building. From whatever vantage point a human being can get to and look around at his world, a camera can follow him and record that same visual experience. A movie camera, of all our creative media, comes nearest to duplicating and recording human vision in continuous time. Since architecture is, over and above "physical usefulness," an immediate, personal visual experience, then it seems logical that, in order best to understand how architecture is visually experienced by man, we should make use of that medium which can most

THE FILM IN ARCHITECTURE

nearly approximate this experience.

One of the best films to be made since the war was "The Titan: The Story of Michel Angelo." A feature length film, "The Titan" told the story of Michel Angelo's life by photographing the parts of Florence and Rome which he knew and his paintings and sculpture without the appearance of a single human being in the film. Frederic March narrated the film, and together with excellent creative use of the camera, good music, and fine editing, there came forth a memorable work of art. The main character here was not the visual image of the artist, but his environment and his work. And through these forms, which shaped his character and those which he created, we come to know the personality behind them. This film is a prime example of focusing attention on architectural instead of human forms.

Of course the visualization of human beings together with architecture is very important and very necessary. The one difficulty here, however, is the fact that when we introduce a human being to the screen, immediately we have a personality with which to reckon and this moves toward dramatics. For some reason human beings tend to be more interested in other human beings than in the architectural forms which surround them.

Since the film can play with time like a ball, it is possible in

experimentation to expand and contract time to suit our purposes of architectural investigation. For instance, experiments concerned with the way in which natural light changes during the course of a day in a room or outside a house could be shown quite effectively by filming the sequence. The medium could be used in the same way to contract time and show a beam or column failing, concrete cracking, erosion, efflorescence in brick, weathering of materials, the action of members under great stresses—these and many more engineering uses of the film come freely to mind.

Logically, of course, it is impossible to photograph a building which is not yet built unless it be in model form; a great deal of investigation could be made along these lines. The most effective study could be made with existing architecture, since architects and students make a habit of "reading sermons in stones" every time they enter a building. This movement of the camera through, over, around, and under architecture would be the most interesting in dealing with outstanding architectonic forms from the profession's great history.

Everyone cannot possibly get around enough to experience all the great architecture. Photographs, lectures, sketches and talks are good; but think how much better off, how much closer to duplicating the experience itself we could be if only we used this tool of the motion picture.

—HARDINGE MENZIES.

THE FLEXIBLE BUILDING • THE FLEXIBLE BUILDING

Since the introduction of skeleton steel and ferro-concrete frame structures, architects have rediscovered the curtain wall. No longer is it the prime function of walls to support the floors or the roof above; all that is asked of them is that they serve as a screen—a screen against the elements, against odors or sound, against light and view, or just a screen to help define space or serve as a background against which one may place furniture or a picture.

These screens take many forms, ranging from heavy masonry simulating the stability of bearing walls to the other extreme of using enormous areas of ceiling-to-floor glass. This endeavor to express the curtain wall, coupled with the availability of large sheets of glass, seems to encourage enthusiastic and often indiscriminate use of the glass screen. Innovations, such as movable walls and screens, partitions that do not quite touch the ceiling, luxurious use of louvered walls, and other devices helped to create the present "flexible" space that we associate with modern architecture.

With such "flexibility" as a slogan, we have set forth to design our buildings. First, the floor is poured on grade; then, the steel lally or concrete columns are placed; and finally the roof slab covers the structure. All that is necessary then is curtain walls of glass and light-weight partitions to enclose and subdivide the building. When these elements of architecture are reduced to their minimum, a greater amount of study and refinement is necessary. Such space modulations cannot successfully be executed superficially. There must be changes of material, changes of roof or floor levels, or a change of scale and of interest, to prevent the building from having the dull sameness everywhere. Unless handled with unusual clarity and sensitivity, as in Van der Rohe's Barcelona Pavilion, the space we thus create often seems incomplete, cold and inhuman.

I remember my most recent experience with such a building, a newly completed restaurant which undoubtedly was very thoroughly studied and planned for the utmost convenience. It is a sandwich of glass between two horizontal slabs of roof and

floor. Movable partitions divide the dining-room into smaller areas; free-standing storage units help set off the lounge and the bar. But such divisions seem inadequate and one feels little warmth in this building. There is a feeling of being alone in the midst of a broad plain, a feeling of insecurity on being exposed and watched by many hostile eyes. There is no corner, no nook, to which one can retreat with his friends and feel that the party is complete. The rest of the room opens out on one side to the lounge, thence to the bar, the vestibule, and finally out to the sidewalk. The other side is a full-height glass opening to the terrace. Somehow one feels compelled to speak in hushed tones and be on his very best Sunday behavior. Even when a whole section of the dining-room is reserved for the evening and a banquet is in progress, one cannot entirely forget that there are others just beyond. No party seems large enough. There is only the feeling of empty incompleteness and strange loneliness.

Why can't there be a change in floor or roof levels, a solid wall somewhere to reassure us of the shelter it provides us? And why can't there be an intimate division to help re-establish the human scale or some area where one knows that he belongs

instead of being an exhibition piece in the middle of one big unhappy space?

Admittedly, there is much to be said for flexible space, but one cannot help wondering how truly flexible this space is. It is true that the houses we build today, in the very latest trend, may have a multi-purpose room, or a dining-room or a study that opens to the living-room. In some instances, a corner of the living-room or the study can be converted into a spare bedroom. Yet, if adaptability is one of the requisites of flexible space, I question whether the modern house is as flexible as the Cape Cod or the Georgian houses it is attempting to replace. Here in the South, I am constantly amazed to see houses 150 or more years old which still seem to function well, complete with up-to-date heating, plumbing, electrical, and even air-conditioning facilities. Though it may be true that we are not building houses with the intention that they will serve the family for such a long period of time, it is also apparent that the ever-increasing spiral of scientific research and production has moved with geometric progression until today the period before the obsolescence of any new development is very short. In rare instances, such as in the design of an aeroplane,

the commodity is already technically obsolete even before it has come off the production line.

With the scientific and industrial potential that we have, it is a certainty that within our generation, air-conditioning in the South will be a common convenience just as scientifically designed heating systems are without question incorporated into our buildings today. Yet, little or no provisions are made for air-conditioning. Many of the houses built today on concrete slabs will find it impossible to take advantage of such units unless they are now heated with warm air and already have duct work in them or major alterations of furring ceilings are done. However, it will be no problem for the Colonial houses. This fact is due mostly to their deep basements and the high attic spaces which modern architects are too keen to eliminate. It is paradoxical to find a new automatic washer in the laundry room (converted from a butler's pantry) in an old Colonial mansion and none in the modern house that a fellow architect built for himself some nine years ago. It is impossible in the latter case to install the washer without first tearing up the concrete slab floor to accommodate the necessary hot-water line and drain pipe. How many more similar conveniences must

we do without in our so-called "flexible" house when science promises inventions to come in ever-increasing numbers?

During the past fifty years, we have seen tremendous changes; the major ones have been in the sources of power. We now use oil instead of coal to heat our buildings and electricity instead of gas to light them. The houses of the past have been able to make the adjustments and continue adequately to serve their occupants. Additional and new plumbing fixtures have constantly rehabilitated them. Other improvements and changes are yet to come. We talk of the possibility of one power source to heat, cool, light, and operate our buildings—it may be solar energy or it may be atomic energy. They are both within our grasp. With the speed with which scientific research and progress move, it will not be long before they become practical and economical for everyday use. Why are not buildings "flexible" enough to take advantage of some of these conveniences that we anticipate? The modern architects have been conspicuously lax in their consideration of a basic type of change in building. Blinded by the cold clarity of the present they have too often brazenly ignored the future. It is time we stopped fooling ourselves about "flexible" space and started some serious thinking and work towards that end.

—GEORGE MATSUMOTO.

. . . THE STAMP OF TWO DEFECTS

The Raleigh Little Theatre has made a reputation for itself which extends beyond the local area. North Carolina chauvinism has overstated the matter, however: The Little Theatre is good but not first-rate. There are critics of the Theatre who are prepared to speak without any personal malice. From their standpoint, the only heels in the Pogue Street Stock Company are the Achilles heels discussed in this dual article. The acting and direction are superior—if not **consistently superior**. It is the matters of play-selection and set-design which cause the greatest concern.

HEEL #1: PLAY SELECTION

As an amateur of the arts (in both the favorable and the unfavorable senses of **amateur**), I think I am entitled to comment on the type of play which a community theatre might reasonably be expected to produce. In general terms, such a play should have more to do with the past (dramatic classics) and with the future (experimental plays) than with the immediate present (what's new on Broadway).

The powers-that-be seem to have confused Pogue Street with Shubert Alley. It is regrettable that all enthusiasts of the Broadway product cannot see even a road-company version of their favorites. But the community theatre is not responsible for remedying this deficiency. When it produces contemporary plays, let it select plays which are too experimental for commercial production, or plays which—whether they failed or succeeded on Broadway—have real esthetic merit. Let the program be balanced, at least, with plays which are not typical Broadway products.

I don't mean to disparage Broadway plays gratuitously. We are occasionally astounded at the boxoffice attained by plays like the recent offerings of Eliot and Fry, and we are equally as-

(continued p. 10)

HEEL #2: SET DESIGN

An imagination can dream up a variety of settings for a particular play, from the architectonic curtain draping of a mystical Adolph Appia to the strict realism of a literal Norman Bel Geddes. It is true that a setting must serve the play. It must implement and heighten the effect of the play it sits behind. In observing the sets in Raleigh, as anywhere else, one must consider the plays which are produced in them. In its play selection, the Raleigh Little Theatre has carved itself a convenient rut along the road of literal realism with only an occasional excursion into what may be called "stage-convention semi-realism." Reasonably one must admit that the policy of realistic setting merely reflects the selection of plays. But within this limitation it is possible to concoct striking and original settings. Such designs have not appeared on the stage of the local theatre.

As long as the script calls for a period interior, the results have been satisfactory. Noteworthy have been **Years Ago** and **Pygmalion** with its Victorian detail and William Morris wallpaper. Slightly different but probably the best set in some time was last season's **Hasty Heart**. The scene was a bamboo hut in Burma. The hut was very real (it was actually bamboo) but

(continued p. 11)

tounded at the number of turkeys which people actually invest money in. The angels smile on the bad and the good alike. In the case of plays without highbrow pretensions (comedies, in particular), those with superior esthetic qualities generally fare best at the boxoffice. In their Broadway setting, some of the plays of the current Little Theatre season were startling successes neither commercially nor artistically.

But there **are** plays of merit which fail to make Broadway, And there are plays which need to be tested in actual production, though they have little chance of survival on Broadway. Into this category fall certain plays by poets and novelists. The Yale Dramat proved to everybody's satisfaction that nobody wanted to attempt a second production of Thomas Wolfe's **Mannerhouse**.

On the other hand, Robert Penn Warren got favorable notices on the off-Broadway production of **All the King's Men**—the play adapted from the novel of the same title, which was adapted from the original play (was **Proud Flesh** the title?). The Hollywood version indicated that the material was suitably dramatic, but the movie was a disappointment in other respects. Community theatres might feel some responsibility for giving material of this type an even break.

Community theatres have some responsibility for keeping dramatic classics on the boards. Now, a theatre is not an old-curiosity shop; zombies are for bar-and-grills, not for stock companies. But there is a good deal of vitality left in Shakespeare, for example. There's no getting around the fact that historical changes complicate the problems of production. Among such changes is the change to what is known as "the post-Ibsenian picture-frame stage," which—in Shakespeare's type of play—interposes a barrier to communication between audience and players. You could get some interesting results with a burleycue runway extended out into the audience.

A theatre which produces experimental plays will inevitably be labeled **avant garde**, derogatorily. But there is a sense in which a theatre has to be avant, if it ever hopes to guard the best heritage of the community theatre. Remember the truism about people's going backwards when they stop going forwards. The community theatre has at least as much responsibility as the Rotary Club (which it may even have to fight) for improving community tastes. I am happy to note that the Little Theatre's playwriting contest is stepping out in the right direction. By encouraging writers to turn out plays without commercial slanting, the Theatre may hearten its own inclinations toward a better balance of plays.

—DONIPHAN LOUTHAN.

HEEL #2:

the atmospheric effect of golden sunlight and pale green jungle which were visible through the windows and chinks in the bamboo thatch were what lifted this setting above its predecessors. **Command Decision** achieved almost as admirable an effect in its representation of a crowded quonset hut. But when the scene becomes more abstract or symbolic as in **The Madwoman of Chailot** the results are inadequate to say the least. The dramatic drapery which in both the New York and Chapel Hill productions transformed the Madwoman's bed into a throne here seemed to be little more than another tasteless plume in her mad hat.

It seems, therefore, that scholarly imitation is sufficient for some plays, but that only an artistic intellect can save other sets from mediocrity. A case in point is last season's **Born Yesterday**. It was hailed as a long-awaited opportunity to do a modern apartment, but as it turned out, the set violated all the requisites of good design, whether it be modern, Georgian, or Egyptian. If we are to take that set as an example, modern interiors consist of corner fireplaces, split-level living rooms, and an over-all lack of any design whatever. The solidarity of a realistic interior was absent. The set had all the pasteboard look of a high school play in Ahuskie. Ideally, a successful setting should not be seen at all but felt as part

of the mood of the play. But a drab set is just as obtrusive as a flashy one. Many recent sets have had a general greyness which may represent an attempt to keep the set well behind the players. **The Voice of the Turtle** cannot be criticized on this score; one first-nighter described it as resembling "the display window of a second-rate furniture store." It would seem that most of these sets were built by occasionally referring to the photograph of the Broadway set which appears as a frontispiece in Samuel French's acting edition of the various plays. But in no sense were they designed.

To sum up, the Little Theatre is successful when it attempts period sets, but it lacks the sensitive feeling necessary for modern and symbolic settings. The School of Design believes in modern architecture and teaches an understanding of symbolism. It has given its students an inkling of stage design through sketch problems which unfortunately remain unexecuted. Previous offers of mutual aid, improved stage designs in one case and the opportunity for execution in the other, have gone unheeded. In rebuffing these offers, the Pogue Street set builders are missing an opportunity to team up with the better designers in the school. Such collaboration might produce settings of a higher artistic quality than Raleigh has seen to date. It is worth trying.

—JAMES L. BRANDT.

In an age when men were feverishly engaged in getting and spending as much of this world's goods as they were able, Henry David Thoreau, 1817-1861, of Concord, Massachusetts, resolved "not to live in this restless, nervous, bustling, trivial, Nineteenth Century, but stand or sit thoughtfully while it goes by." In an age when Speed was synonymous with Progress, Henry David Thoreau observed acidly that "though a crowd rushes to the depot, and the conductor shouts 'All aboard!' when the smoke is blown away and the vapor condensed, it will be perceived that a few are riding, but the rest are run over." In an age of the hideous American house, in which living was more a process of the upkeep of hideousness than anything else, Thoreau threw together a cabin on the shore of Walden Pond outside Concord and lived happily in it for upwards of a year as a self-appointed inspector of snowstorms, watcher of woodchucks, and recorder of his own thoughts. For the mass of men, who "lead lives of quiet desperation," he had Olympian scorn, for they consistently refused to heed his admonitions to "Simplify, simplify!" and live like men instead of like sheep. He ignored them as much as possible, preferring to live alone, attend no church save that of the out-of-doors, pay no taxes and follow generally the dictates of his own conscience. Men as severely yet serenely individual as Thoreau are rare. But in his short life he put into his writings—**A Week on the Concord and Merrimack Rivers, The Maine Woods, The Journal**, and his best-known masterpiece **Walden, or Life in the Woods**—an inspiring account of the beauty, dignity, and humor of Man Thinking.



The following article is composed of excerpts from **Walden** and includes many of Thoreau's ideas on building. His somewhat random and discursive observations exemplify the directness and depth of his thoughtful mind, which noted the ailments and the remedies of American architecture in his time.

—MARY LOUISE KELLY.

HENRY DAVID THOREAU

AS FOR A SHELTER

As for a Shelter, I will not deny that this is now a necessary of life, though there are instances of men having done without it for long periods in colder countries than this. . . . Man was not made so large limbed and robust but that he must seek to narrow his world, and wall in a space such as fitted him. He was at first bare and out of doors; but though this was pleasant enough in serene and warm weather, by daylight, the rainy season and the winter, to say nothing of the torrid sun, would perhaps have nipped his race in the bud if he had not made haste to clothe himself with the shelter of a house. . . . We may imagine a time when, in the infancy of the human race, some enterprising mortal crept into a hollow in a rock for shelter. Every child begins the world again, to some extent, and loves to stay outdoors, even in wet and cold. It plays house, as well as horse, having an instinct for it. Who does not remember the interest with which, when young, he looked at shelving rocks, or any approach to a cave? It was the natural yearning of that portion of our most primitive ancestor which still survived in us. From the cave we have advanced to roofs of palm leaves, of bark and boughs, of linen woven and stretched, of grass and straw, of boards and shingles, of stones and tiles. At last, we know not what it is to live in the open air, and our lives are domestic in more senses than we think. From the hearth the field is a great distance. It would be well, perhaps, if we were to spend more of our days and nights without any obstruction between us and the celestial bodies, if the poet did not speak so much from under a roof, or the saint dwell there so long. Birds do not sing in caves, nor

do doves cherish their innocence in dovecots. . . . Who knows but if men constructed their dwellings with their own hands, and provided food for themselves and families simply and honestly enough, the poetic faculty would be universally developed, as birds universally sing when they are so engaged? But alas! we do like cowbirds and cuckoos, which lay their eggs in nests which other birds have built, and cheer no traveller with their chattering and unmusical notes. Shall we forever resign the pleasure of construction to the carpenter? What does architecture amount to in the experience of the mass of men? . . .

However, if one designs to construct a dwelling-house, it behooves him to exercise a little Yankee shrewdness, lest after all he find himself in a workhouse, a labyrinth without a clue, a museum, an almshouse, a prison, or a splendid mausoleum instead. Consider first how slight a shelter is absolutely necessary. . . . I am far from jesting. Economy is a subject which admits of being treated with levity, but it cannot so be disposed of. A comfortable house for a rude and hardy race, that lived mostly out of doors, was once made here almost entirely of such materials as Nature furnished ready to their hands. . . . If it is asserted that civilization is a real advance in the condition of man—and I think that it is, though only the wise improve their advantages—it must be shown that it has produced better dwellings without making them more costly; and the cost of a thing is the amount of what I will call life which is required to be exchanged for it, immediately or in the long run.

Most men appear never to have considered what a house is, and are actually though needlessly poor all their lives because they think that they must have such a one as their neighbors have. . . . Shall we always study to obtain more of these things, and not sometimes to be content with less? . . . Why should not our furniture be as simple as the Arab's or the Indian's? When I think of the benefactors of the race, whom we have apotheosized as messengers from heaven, bearers of divine gifts to man, I do not see in my mind any retinue at their heels, any carload of fashionable furniture. Or what if I were to allow—would it not be a singular allowance?—that our furniture should be more complex than the Arab's, in proportion as we are morally and intellectually his superiors! At present our houses are cluttered and defiled with it, and a good housewife would sweep out the greater part into the dust hole, and not leave her morning's work undone. . . . I had three pieces of limestone on my desk, but I was terrified to find that they required to be dusted daily, when the furniture of my mind was all undusted still, and I threw them out the window in disgust. How, then, could I have a furnished house? I would rather sit in the open air, for no dust gathers on the grass, unless where man has broken ground.

It is the luxurious and dissipated who set the fashions which the herd so diligently follow. The traveller who stops at the best houses, so called, soon discovers this. . . . I think that in the railroad car we are inclined to spend more on luxury than on safety and convenience, and it threatens without attaining these to become no better than a modern drawing room, with its divans, and ottomans, and sun-shades, and a hundred other oriental things, which we are taking west with us, invented for the ladies of the harem and the effeminate natives of the Celestial Empire, which Jonathan should be ashamed to know the names of. I would rather sit on a pumpkin and have it all to myself than be crowded on a velvet cushion. I would rather ride on earth in an ox cart, with a free circulation, than go to heaven in the fancy car of an excursion train and breathe a malaria all the way. . . . There is actually no place in this village for a work of **fine** art to stand, if any had come down to us, for our lives, our houses and streets furnish no proper pedestal for it. There is not a nail to hang a picture on, nor a shelf to receive the bust of a hero or a saint. . . . Before we can adorn our houses with beautiful objects the walls must be stripped, and our lives must be stripped, and beautiful housekeeping and beautiful living be laid for a foundation:

AS FOR A SHELTER

now, a taste for the beautiful is most cultivated out of doors, where there is no house and no housekeeper. . . . When I think of acquiring for myself one of our luxurious dwellings, I am deterred, for, so to speak, the country is not yet adapted to **human** culture, and we are still forced to cut our spiritual bread far thinner than our forefathers did their wheaten. Not that all architectural ornament is to be neglected even in the rudest periods; but let our houses first be lined with beauty, where they come in contact with our lives, like the tenement of the shell-fish, and not overlaid with it. But, alas! I have been inside one or two of them, and know what they are lined with. . . .

Should not every apartment in which man dwells be lofty enough to create some obscurity overhead, where flickering shadows may play at evening about the rafters? These forms are more agreeable to the fancy and imagination than fresco paintings or other the most expensive furniture. I now first began to inhabit my house, I may say, when I began to use it for warmth as well as shelter. I had got a couple of old fire-dogs to keep the wood from the hearth, and it did me good to

see the soot form on the back of the chimney which I had built, and I poked the fire with more right and more satisfaction than usual. My dwelling was small, and I could hardly entertain an echo in it; but it seemed larger from being a single apartment and remote from neighbors. All the attractions of a house were concentrated in one room; it was kitchen, chamber, parlor, and keeping-room; and whatever satisfaction parent or child, master or servant, derive from living in a house, I enjoyed it all. . . .

I sometimes dream of a larger and more populous house, standing in a golden age, of enduring materials, and without gingerbread work, which shall still consist of only one room, a vast, rude, substantial, primitive hall, without ceiling or plastering, with bare rafters and purlins supporting a sort of lower heaven over one's head—useful to keep off rain and snow, where the king and queen posts stand out to receive your homage, when you have done reverence to the prostrate Saturn of an older dynasty on stepping over the sill; a cavernous house, wherein you must reach up a torch upon a pole to see the roof; where some may live in the fireplace, some in the recess of

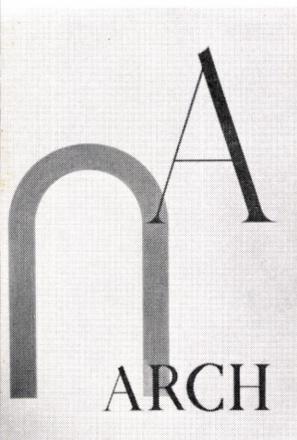
the window, and some on settles, some at one end of the hall, some at another, and some aloft on rafters with the spiders, if they choose; a house which you have got into when you have opened the outside door, and the ceremony is over; where the weary traveller may wash, and eat, and converse, and sleep, without further journey; such a shelter as you would be glad to reach in a tempestuous night, containing all the essentials of a house, and nothing for housekeeping; where you can see all the treasures of the house at one view, and everything hangs upon its peg that a man should use; at once kitchen, pantry, parlor, chamber, storehouse, and garret; where you can see so necessary a thing as a barrel or a ladder, so convenient a thing as a cupboard, and hear the pot boil, and pay your respects to the fire that cooks your dinner, and the oven that bakes your bread, and the necessary furniture and utensils are the chief ornaments; where the washing is not put out, nor the fire, nor the mistress, and perhaps you are sometimes requested to move from off the trap-door, when the cook would descend into the cellar, and so learn whether the ground is solid or hollow beneath you without stamping. A house whose inside is as open and manifest as a bird's nest, and you cannot go in at the front door and out at the back without seeing some of its inhabitants; where to be a guest is to be presented with the freedom of the house, and not to be carefully excluded from seven eighths of it, shut up in a particular cell, and told to make yourself at home there—in solitary confinement. Nowadays the host does not admit you to **his** hearth, but has got the mason to build one for yourself somewhere in his alley, and hospitality is the art of keeping you at the greatest distance. There is as much secrecy about the cooking as if he had a design to poison you. I am aware that I have been on many a man's premises, and might have been legally ordered off, but I am not aware that I have been in many men's houses. I might visit in my old clothes a king and queen who lived simply in such a house as I have described, if I were going

their way; but backing out of a modern palace will be all that I shall desire to learn, if ever I am caught in one. . . .

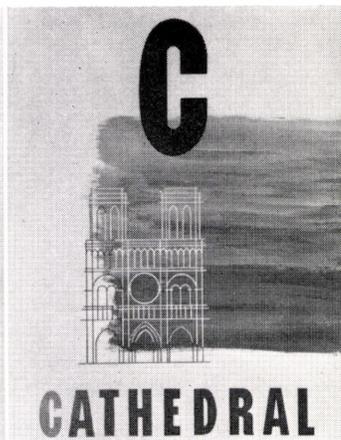
True, there are architects so called in this country, and I have heard of one at least possessed with the idea of making architectural ornaments have a core of truth, a necessity, and hence a beauty, as if it were a revelation to him. All very well perhaps from his point of view, but only a little better than the common dilettantism. A sentimental reformer in architecture, he began at the cornice, not at the foundation. It was only how to put a core of truth within the ornaments, that every sugar-plum, in fact, might have an almond or caraway seed in it—though I hold that almonds are most wholesome without the sugar—and not how the inhabitant, the indweller, might build truly within and without, and let the ornaments take care of themselves. What reasonable man ever supposed that ornaments were something outward and in the skin merely—that the tortoise got his spotted shell, or the shell-fish its mother-o'-pearl tints, by such a contract as the inhabitants of Broadway their Trinity Church? But a man has no more to do with the style of architecture of his house than a tortoise with that of his shell. . . . This man seemed to me to lean over the cornice, and timidly whisper his half truth to the rude occupants who really knew it better than he. What of architectural beauty I now see, I know has gradually grown from within outward, out of the necessities and character of the indweller, who is the only builder. . . . The most interesting dwellings in this country, as the painter knows, are the most unpretending, humble log huts and cottages of the poor commonly; it is the life of the inhabitants whose shells they are, and not any peculiarity in their surfaces merely, which makes them picturesque; and equally interesting will be the citizen's suburban box, when his life shall be as simple and as agreeable to the imagination, and there is as little straining after effect in the style of his dwelling . . .

FRESHMAN COURSE IN APPRECIATION OF ARCHITECTURE

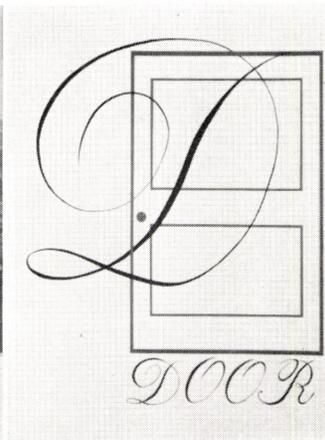
LETTERING AS A STUDY OF FORM



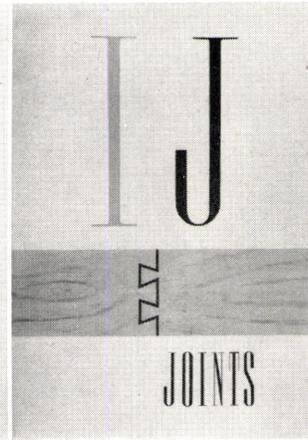
J. L. Bennett



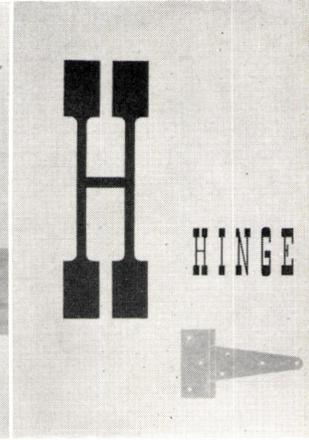
P. G. Clark



R. V. Troxler



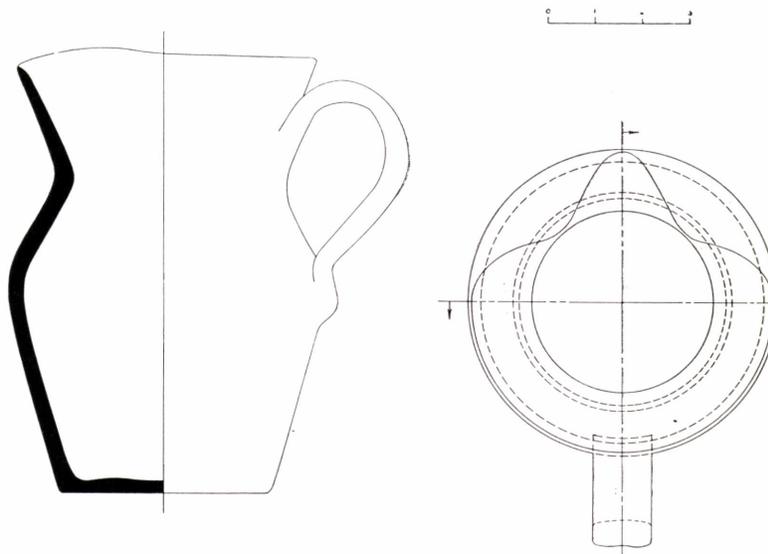
J. W. M. Black



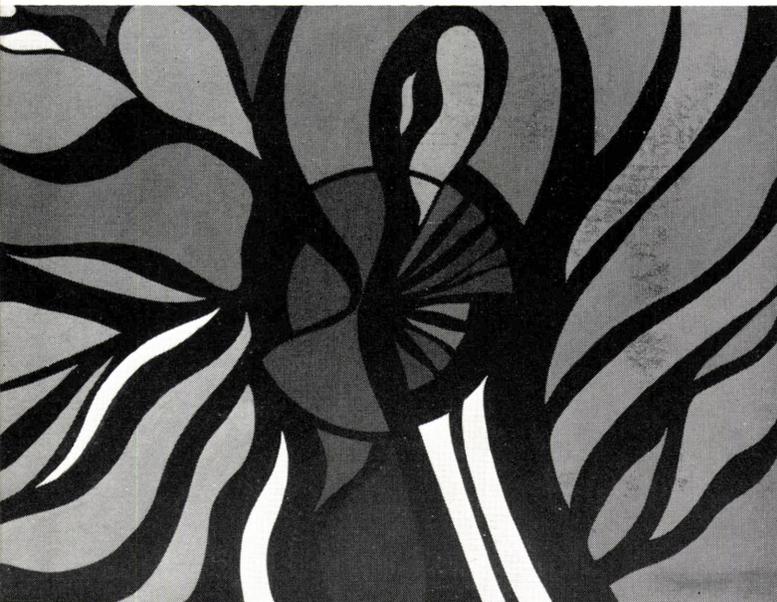
F. M. Taylor

PRINCIPLES OF COMPOSITION

The unobjective forms discovered in the technical presentation of the pitcher are used as elements of composition to represent on the picture plane the three different orders: **equilibrium** (balance), **motion**, **stability**.

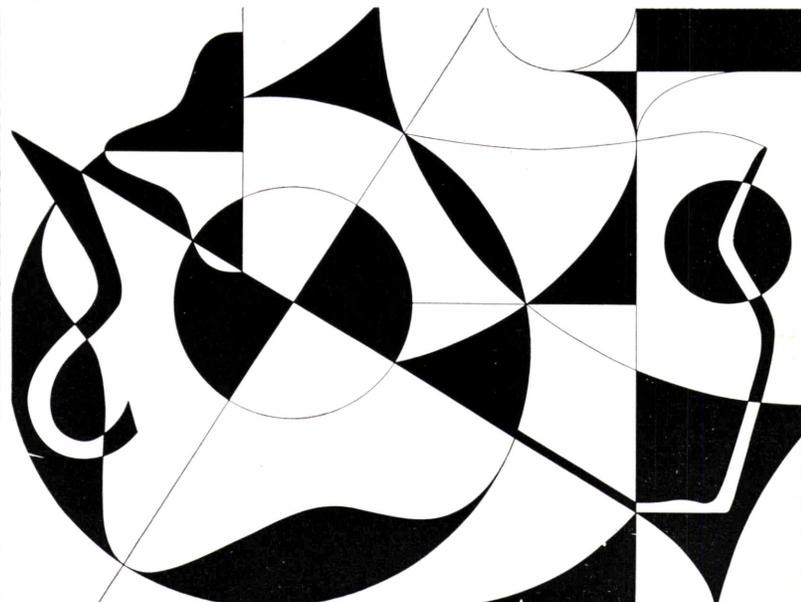


MOTION

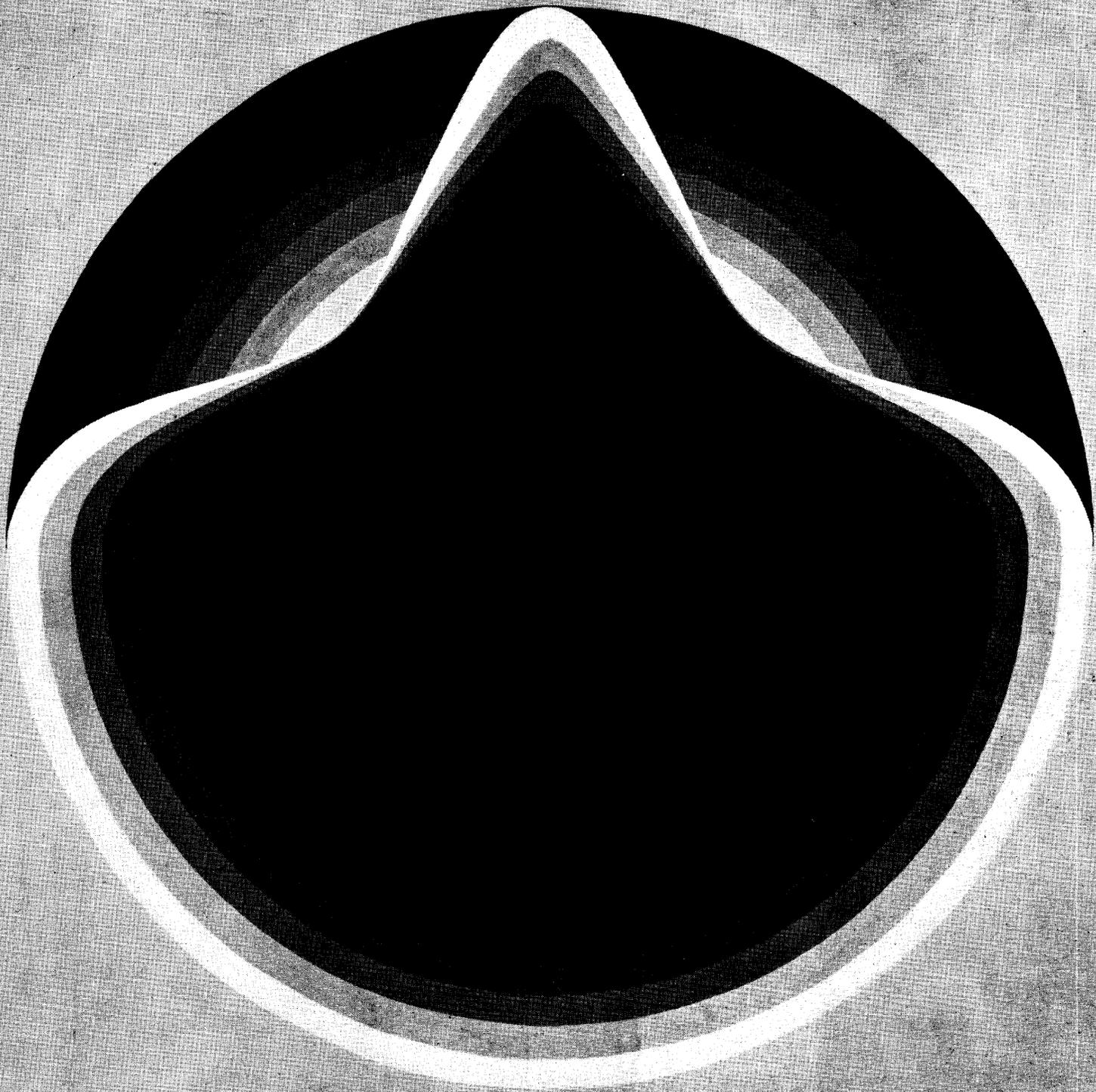


G. H. Phillips

EQUILIBRIUM

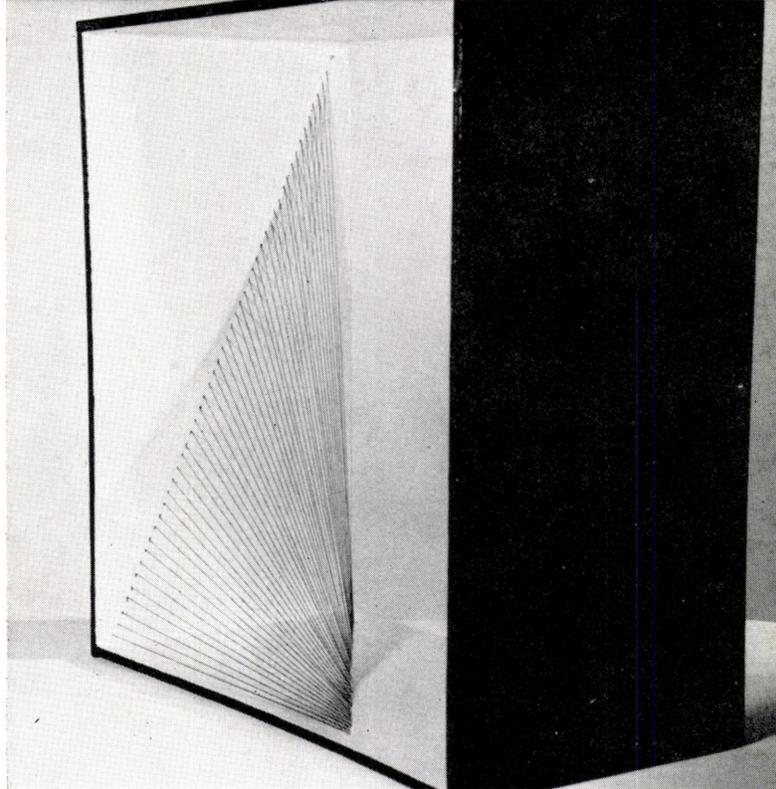


F. L. Jackson



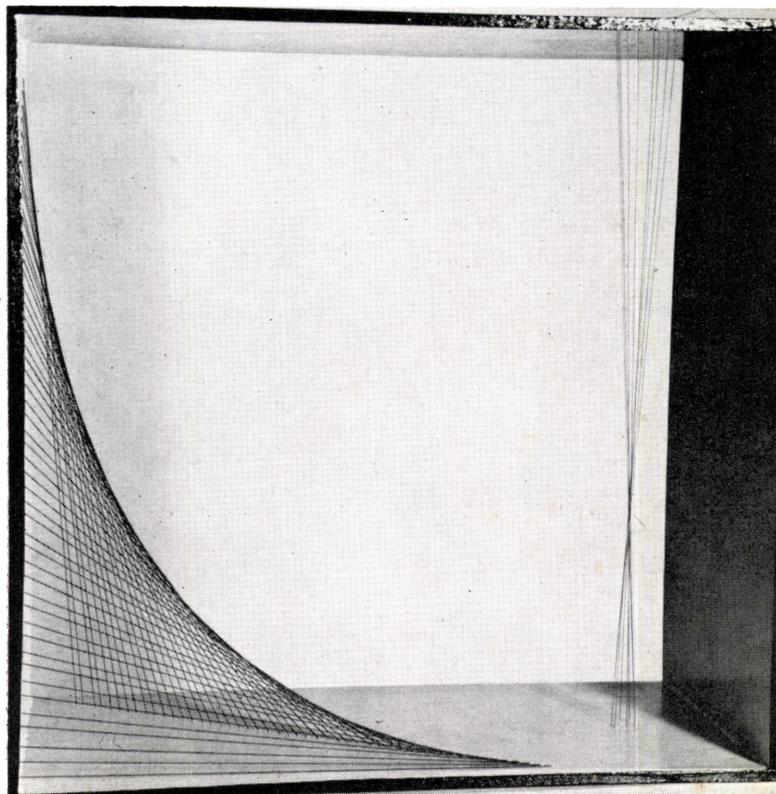
RHYTHMICAL STRUCTURE IN SPACE

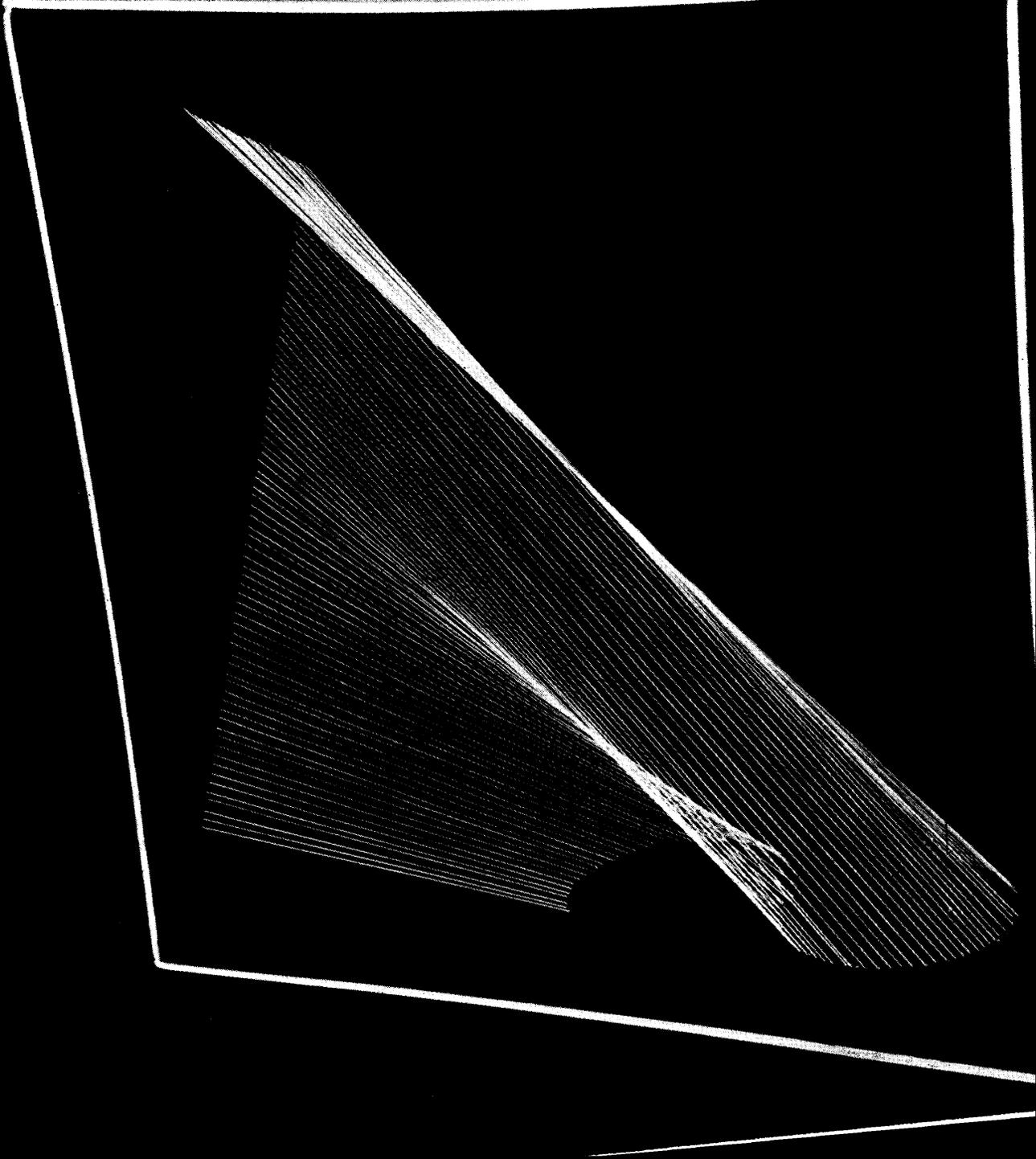
Picture field is replaced by three dimensions. The frame of the composition is a link with previous problems. Rhythmically chosen points on the opposite planes of the frame are connected by lines in space to create a **transparent** composition of **rhythm in three dimensions**. Application of all the elements of this composition is enhanced by a gradual change of the point of view.



F. M. Taylor

J. A. Wells



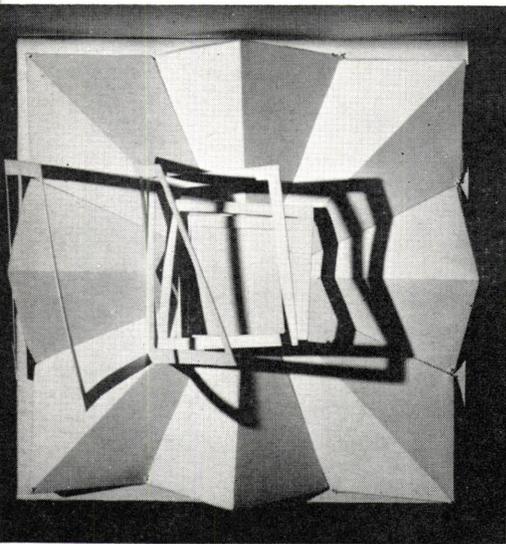


LIGHT AND SHADOW STRUCTURE

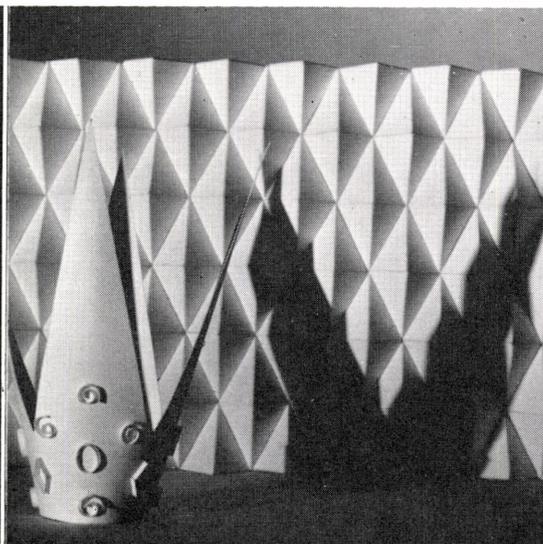
(The importance of shadow is stressed as one of the building materials)

The window display for a store. The arrangement of planes, forms, light and shadows provides the **maximum of contrast and drama** to serve the purpose for advertising and sale in a street of the big city.

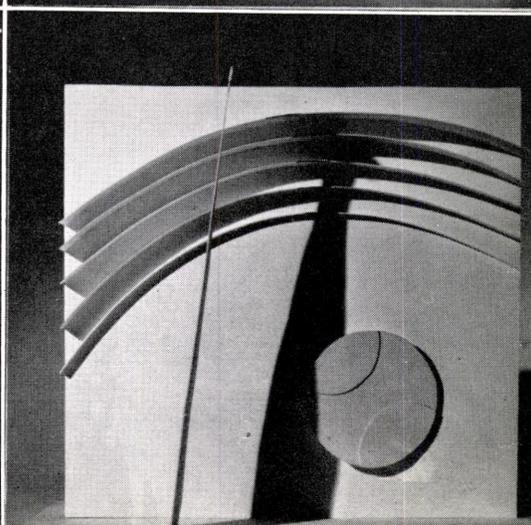
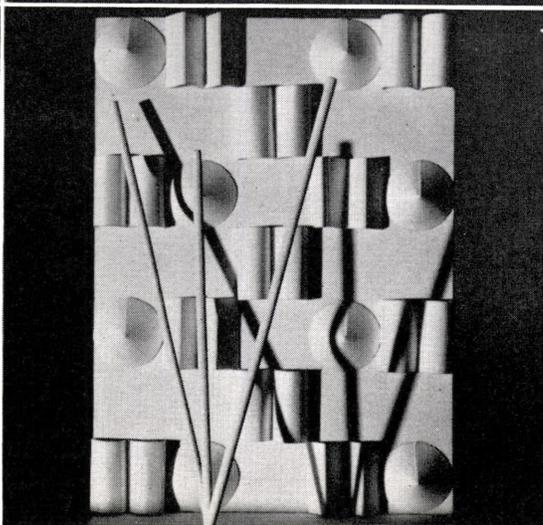
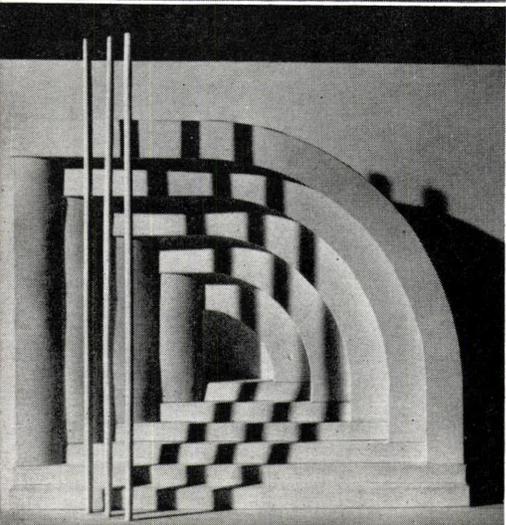
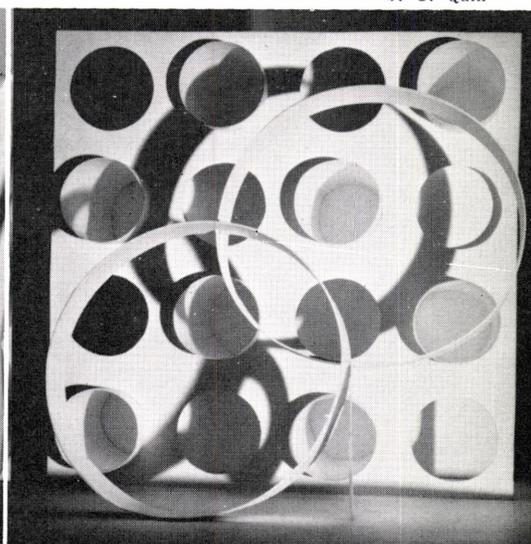
A. C. Banner
R. F. Stainback

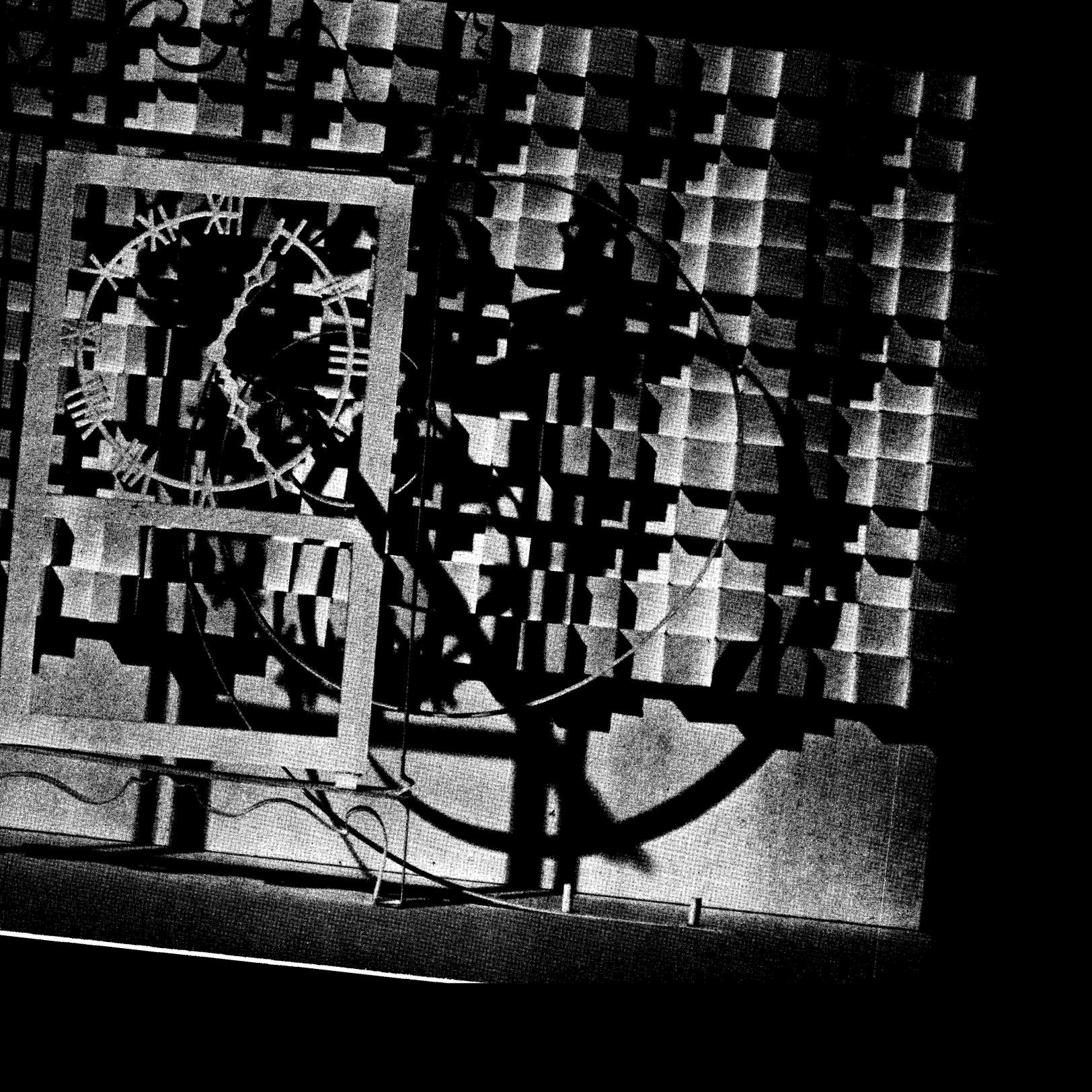


H. E. Smyre
R. W. Seifert



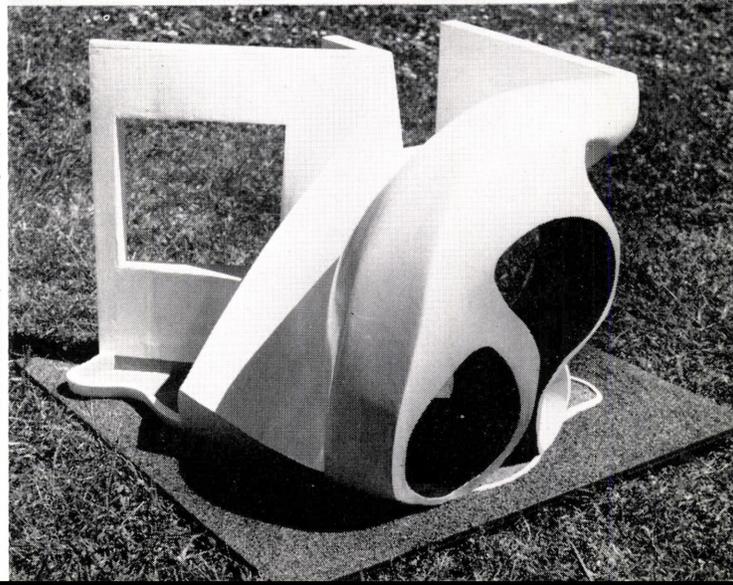
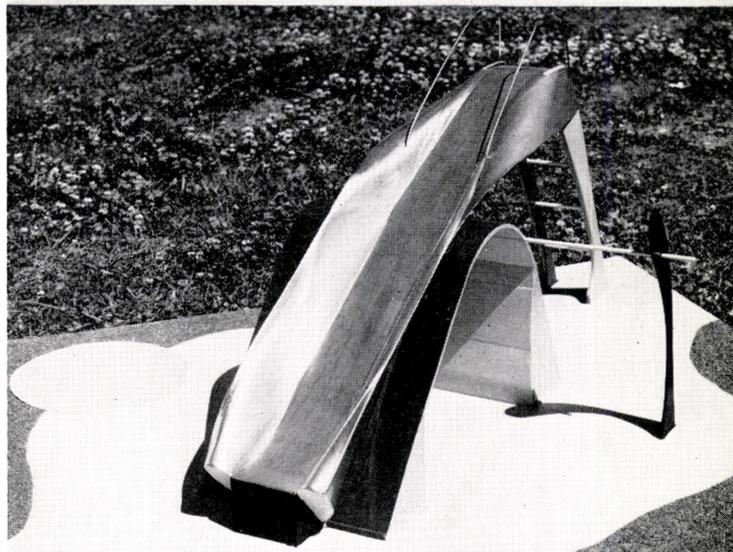
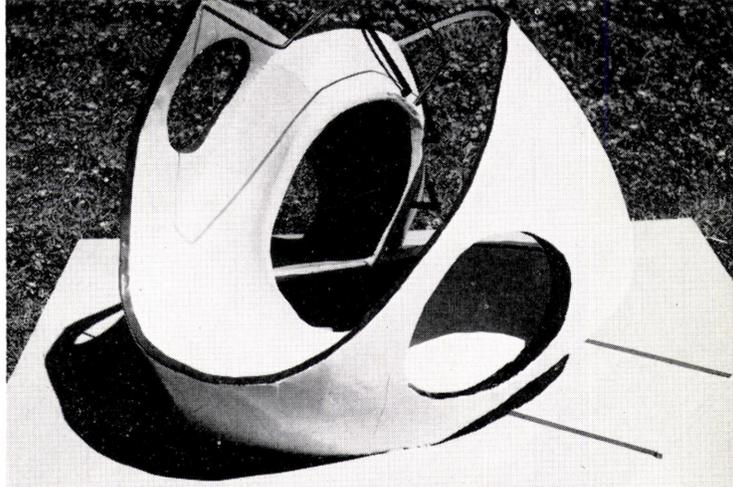
R. B. Tucker
J. T. Quin





STRUCTURE FOR PLAY

In a minimum space an arrangement of space and forms has to provide the best possibilities for a small group of little children to play and exercise. The structure expresses the movement of the play and emphasizes **the scale** of the 4 to 6 year old child.



L. F. Caldwell, P. B. Honeycutt, J. L. Lantzius, Photo by Ralph Mills



Sketch by Pete Norris

“SHE DONE THE BEST SHE KNOWED HOW”

“She died and they laid her out in a homemade pine box. Of course, all of the clan gathered. A burying in these backwoods was a social event. They clustered silently around the small circle of light from the single kerosene lamp. Their silence was not from sorrow; they were trying to think of a verse to be scratched in her headstone. It was really a task because she hadn't been very bright and she hadn't been at all moral. She had never been known to put a foot inside the church, so the usual 'Asleep in Jesus' didn't seem appropriate. Finally one of the elders broke the silence. 'Well, she weren't sech a bad un, I reck'n she done the best she knowed how.' So onto her headstone, a large jug with a closed top, went this unconscious tribute, 'She done the best she knowed how.' That's the epitaph

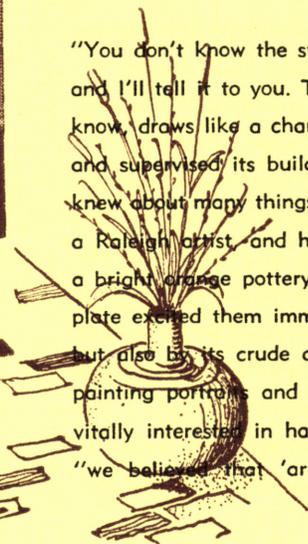
FROM THE UTILITARIAN . . .

I want used on my headstone, you know, I mean it really is." Julianna was holding court in her living room. The entire room was colored a soft amber by the light which filtered through the bright orange curtains. "They're quilt linings, you know, found it at a country store for a song, told the man he was selling it too cheap but he insisted, and it does seem so indigenous." She sat alone on the sofa by the window (so that she could see if anyone came), her hooded falcon eyes watchful. She was doing what she liked best now, giving audience to friends and friends of friends, telling us the JUGTOWN STORY—adding another peg to the living myth-structure.

She sat there like a portrait of an ageless Parisienne painted by Manet. But the background must have been by an artist of a different school. Her studied hand-loomed clothing was a paradox to her fragility. Her sophistication seemed incongruous in this log cabin room with its pine plank floor and mud chinked walls. Had the stage hands put up the wrong set, an early American cabin instead of a sidewalk cafe? The many tiers of books and the profusion of objets d'art added a final anachronism to the stage.

"You don't know the story of Jugtown? Well, stir up the fire and I'll tell it to you. That's really a wonderful fireplace, you know, draws like a charm, always has. Mr. Busbee designed it and supervised its building himself. He was an artist but he knew about many things." It was in 1915 that Jacques Busbee, a Raleigh artist, and his wife Julianna Royster Busbee found a bright orange pottery deep pie-plate at a country fair. The plate excited them immensely—not only by its brilliant color, but also by its crude artistry. Mr. Busbee and Julianna were painting portraits and illustrating at the time but they were vitally interested in handicraft. "You see," Julianna told us, "we believed that 'art is not an esoteric utterance but a

Photo by Albert Barden, Sketch by Jim Sherrill



democratic expression' and that from folk art truly understood and expressed, fine art springs." At that time, Julianna was Chairman of Art of the State Federation of Woman's Clubs and in her programs, instead of stressing fine arts she tried to develop the crafts. When speaking to and meeting with other club women about the state, she had an excellent opportunity to see what was being done with crafts. Pottery making was probably the most underdeveloped of all. Mr. Busbee and Julianna believed that an injection of art into the country potter would rejuvenate in the state an age-old industry. But though they tried desperately, no interest could be aroused in this moribund craft. No one wanted to undertake the project, so they decided to do it themselves.

In an isolated section of the North Carolina piedmont, in a remote spot in Moore County identified by the natives as "the dark corner," they discovered Jugtown. Although there was never an actual town, this area was a center of pottery making in North Carolina's pre-prohibition days. There were perhaps 50 or 60 potteries in the fifteen mile stretch between Robbins and Seagrove. "Robbins, you know," Julianna interposed, "is the town which used to be Hemp before the name was changed to match that of its new lord. The argument over changing the name really tore the town apart. They almost had a shooting feud, I mean they really did. Families were all split up, old friends wouldn't even speak to each other when they met on the street, and at church the Robbinsites sat on one side and the Hemp-sters on the other. They asked me to attend one of the meetings at which they were arguing over the changing. One of our prominent legislators was droning on about why the name should be changed. 'After all,' he said, 'what's hemp? Nothing but rope. Something to make a hangman's noose of.' I just stood right up and said, 'I'm shocked to learn that a man of your very obvious secondary education doesn't know that

"Hemp" comes from an old Scottish Word meaning home-place. Rope, indeed. It grieves me to hear you air your ignorance in public.' But back to Jugtown."

When North Carolina voted prohibition on herself many of the potter's wheels were stilled. Without the jug market there was little profit, for in ratio to the dozen churns or crocks, the potter sold a thousand or more jugs. These craftsmen were forced to discard the trade of their forbears. They broke contact with the outside world and withdrew into a cocoon woven of ignorance, superstition, and distrust of outsiders. Had anyone stopped at one of these potteries then, and asked for Jugtown he would have been directed vaguely "thataway—down the road a piece." No one would admit openly that his pottery was of the Jugtown community for the term had acquired connotations of hidden stills and liquor jugs.

When the Busbees first went to the dark corner in 1917 they found a community of craftsmen living independently of the outside world. The people made their own furniture, cloth, shoes, and "dirt dishes." The churns, crocks and other utilitarian pieces which the potter turned differed very little from those of the 1740's when the first Staffordshire potters settled in this section. The Busbees scoured the countryside in search of pieces which were signed and dated. Several went back to the mid-Eighteenth Century. In their search, they were directed to a man known as ol' Joe Shuffle. Imagine the surprise of finding that his name was actually Josiah Wedgewood Sheffield! From the information gathered from property sales, land grants, and family Bibles, they were able to establish the genealogy of the potters and from the pottery, the tradition of the locale. Although much of the pottery was not very interesting, its forms were much more subtle and refined than that in the rest of the state and the bright orange color was so joyous and dif-

ferent. They heard the old tales of trips in covered wagons to peddle the pottery and to barter it for things which were not produced locally. They heard of the conscription of the potters during the War Between the States and how they worked under guard to turn medicine jars for dispensaries, bowls and mugs for the hospitals, and even telegraph insulators instead of being sent to the front to fight. In the burying grounds they found jug headstones like the one Julianna told us about. Of course, these have all been replaced now by 'store-boughten' granite markers.

"When we first came here," Julianna continued, "my husband thought he could help the potters not only with his art knowledge, but also by acting as a liaison agent for them through his contacts with the outside world. But they were suspicious of him because he was an outsider and different from themselves. They were certain that he was a German, for one man said he 'seen one onct at High Point.' Another declared he was 'one of them Swedens.'" As Julianna quoted the natives, she lapsed from her natural speech into their vernacular.

"They would never believe that we were native born and bred North Carolinians, and they never will. Why, we were both Raleighites and some of my fondest memories are of my childhood there. When I was quite small, my mother gave us children a subscription to the London **Times** and **L'Illustration** for Christmas, instead of the usual toys, since she couldn't afford both. Although I was too small to gather much from reading them, I think I got more pleasure from them than any of the other children did. I would go to school and boast, 'At my house, we take foreign publications. We read the London **Times** to get the real news, and we only read the **News and Observer** for the local happenings.'" (These same issues may

now be perused in the garden house at Jugtown, along with **Punch** and **Gourmet**.)

"Those first years here at Jugtown were pioneer days for us. But we believed that imagination is a frontier and that always there will be pioneers where there are courage, strength, and a will to dare."

The Busbees had the name "Jugtown Ware" registered, employed local potters, and launched their new industry. They changed worlds—completely. Using the pieces of pottery collected, Mr. Busbee trained the potters to reproduce the wares made by their ancestors. By changing a curve or line slightly, he edited what had been purely functional and often clumsy wares, making of them objects of interest and beauty. As soon as the magazines and newspapers began to give coverage to the Jugtown venture, the old potters and their progeny became fired with enthusiasm and potters' shops sprang up like mushrooms. Some of them were supplied with capital and have become handcraft "factories." Of course, all the potters began to claim that they were Jugtown. And every potter in the state swore that his ancestry was of Staffordshire. One even said that he was "borned" there. Now, all along our highways are little potter shops, the "stop and see it made" type, where a man makes his pottery assisted by his wife and children. Production is inexpensive because wood is the fuel used. And the bright cheap glazes always attract the tourist trade.

We left the house and went down to watch Ben Owens throw. His dexterity in turning on his primitive kick-wheel never ceases to amaze. It is really an experience to watch a pot grow under his touch. As we watched Ben, Julianna explained to us that they had attempted to keep the pottery in the tradition of the settlement. "The shop could have been here for 150 years. Just

the other day, two women came and wanted to see the 'pot'ry.' After ooohing and aaaahing over the ancient buildings, they asked, 'Could you tell us about how long these cabins have been here?' 'I can tell you exactly,' I answered. 'Twenty-five years.' The technique we use is the same as that of the pre-Revolutionary potter. We have no modern short cuts, for we are in no hurry. It is not how much can be turned in a day's work, but how beautiful. It sounds imbecilic, but we don't even know how many pieces are in a kiln. All of the pottery is fired in this old groundhog kiln—no saggars and no cones, just an open fire."

With the encouragement of Tiffany Studios, the first decorative pieces were turned at Jugtown. When they departed from the utilitarian things, Mr. Busbee selected for form the early Chinese, whom he considered to be the Old Masters of the potter's wheel. It is in these translations that Jacques' artistry is especially evident. Every shape has authority. Although Jacques' was the hand who guided the wheel, it is to Julianna that Jugtown owes its widespread popularity. It is she who has given it its aura of drama, it is she who has supplied the stage setting.

"My husband," Julianna reminisced, "felt that handicraft should be lovingly, sparingly done, and that it should never be drudgery. Up until his death in May, 1947, he worked assiduously trying fully to understand and express folk art. When he died he left the universal heritage of his art to his native state, for he was first and always a citizen of North Carolina."

"Well, that's about all there is to the Jugtown story, for, you see, since Mr. Busbee's death I've just stayed on here, doing the best I knowed how."

—JOHN FOSTER FAULK.

Photo by John Mattox

TO THE HIGHLY DECORATIVE





Photo Copyright by Fuller Research Foundation, Canada

TENSILE INTEGRITY

"It is useless to maintain that social progress takes place of itself, bit by bit, in virtue of the spiritual condition of the society at a certain period of its history. It is really a leap forward which is only taken when society has made up its mind to try an experiment. This means that society must have allowed itself to be convinced, or at any rate allowed itself to be shaken, and the shake is always given by somebody."

—BERGSON.

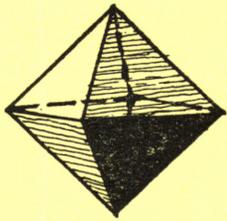
In surveying briefly the quality of those elements in life which occupy themselves with the creative organization of our physical and emotional environment, we discover them to be static. This quality manifests a condition of crystallization and formulation. From this we may logically deduce that a style suitable to our society has been achieved. However, this deduction soon takes on the aspect of a paradox when we consider our potential of constructive advantage which has not been realized. In fact, rather than having achieved a style it would appear that we have merely succeeded in clarifying our attitude by removing the degenerate ornamentation which had become so because of the attitude of the eclectics.

Let us examine the field of architecture, in order to illustrate. Obviously, we have reached the end of an epoch. The increasing preoccupation with details rather than concept emphasizes this point. It is an admission that the form is thought to have already been achieved. Those forces, now becoming formulated, will undoubtedly exert their influence for many decades but the stimulative atmosphere they will engender will be an illusion. For example, the Architecture of Mies van der Rohe and LeCorbusier, starting with a revolutionary approach to an old concept, has continually devoted itself of late to mere refinements of the original theme. We see LeCorbusier attempting to find the absolute proportional measure or "golden mean" in classic buildings, like the Petit Trianon, completely disregarding the fact that our proportions have taken on a new set of features due to the introduction of stronger materials requiring

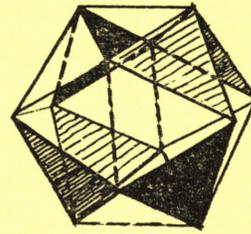
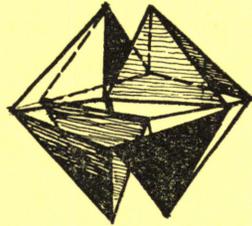
less mass, transparency and a fairly accurate system of calculating loads and stresses bringing with it a precise use of material. Certainly, they have taken advantage of our industrial capacity. They also have clarified the air, so to speak, of those cumbersome and degenerate attitudes which had given fuel to the fire of eclecticism. In this clarification lies the greatest significance of these movements but also in this lies the key that they are merely transitory forces. The attitude is sometimes expressed that a style is necessary in order to coagulate the thoughts of the time. However, the question seems to evolve around the point of whether or not these elements are the ultimate expressions of our society and whether they have taken full advantage of our potential.

In keeping with this conclusion it would seem that it is the cubical, static concept of space and structure which leads these forces "by the nose" into the blind alley of self imitation. It is obvious, in other words, that the fundamental error rests in the Euclidean concept. It is this latter concept, based upon a flat earth and a static universe, which has deluded and enticed us for so long. Largely discredited by science, it still exerts a powerful influence. Our spatial conceptions continue to be considered within its framework.

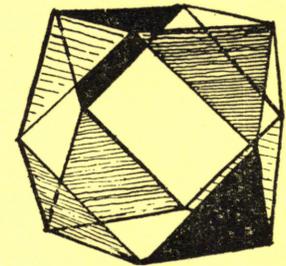
Assuming that in Nature and its bountiful gifts lies the basis for the spatial and structural attitude of man, as logically it should, we search for this basis, and in this search, we chance upon the theory of energetic geometry, as postulated by Richard Buckminster Fuller.



OCTAHEDRON



ICOSAHEDRON



DYMAXION

This new theory, in contrast to the Euclidean concept, does not abstract principles from men's mind, to which nature is distorted. It recognizes the energy comprehensiveness of physical reality and takes the view that structural space is also energetic. An elaboration seems appropriate in order to clarify the structural manifestations to be discussed. Realizing that structural conceptions in a dynamic universe must be inherently stable, and further that they must be energetic, led to the discovery of a hierarchy of space-filling volumes existing complementary to each other. These hierarchies manifest a possible dynamic structuring within the framework of energy transformations. Let us examine one element of this caste to illustrate.

The octahedron, if spun outward (see drawing) about the centroid of each triangulated facet, while maintaining their relative position will pass through an icosahedron stage and climax in the "dymaxion" or cubo-octahedron. In this process we find the necessary energy transfer, inherent in a dynamic universe. We also have no volume displacement since as the octahedron expands, its volume displacement is compensated by the contraction of the cubo-octahedron. The significance of this lies in the retention of the preciseness of Euclidean geometry but within the framework of a dynamic system.

A further significance is attached to this discovery. Advancements in scientific thought have confirmed the fact that our universe force system is preponderantly tensile with compressive forces being relegated to minor tasks. This fact raises a ques-

tion concerning our uses of compressive and tensile forces. An examination of our advancements in the various materials will illustrate this point. Compressively speaking, our advantage has remained fairly constant during the last 5,000 years at a stress of 50,000 #/in² but our tension stresses have advanced from a minor 5,000 #/in² of certain vegetable fibers to a phenomenal 400,000 #/in² in some glass fibers during the same period of time. This alone is a comparative advantage of eight to one. There is, however, another factor to be considered. Compressive members depend for their advantage upon the relation of length to least radius of gyration. Tensile members are freed from this inhibition.

Logistically, there exists still another advantage of tensile materials. Since the relation of length to least radius of gyration brings into account a mass consideration which is significant, it is obvious that a spatial enclosure adopting a compressive system of structure would necessarily involve a considerable amount of material mass. A relatively accurate estimate is 50# of material per cubic foot of enclosure. In the geodesic* structures (see print) developed by the Fuller Research Foundation this has been reversed. We now have 1# of material enclosing 50 ft³—a remarkable advantage of 2500 to one. The purely economic factor is obvious, to say nothing of the social impact.

*The term geodesic is derived from those tensile lines on the surface of sphere which are the shortest distance between two points and are great circles or geodesic lines.

What effect this theory has had upon the creative expressions of those individuals concerned with spatial considerations seems a pertinent question at this time. As expressions of its effect I

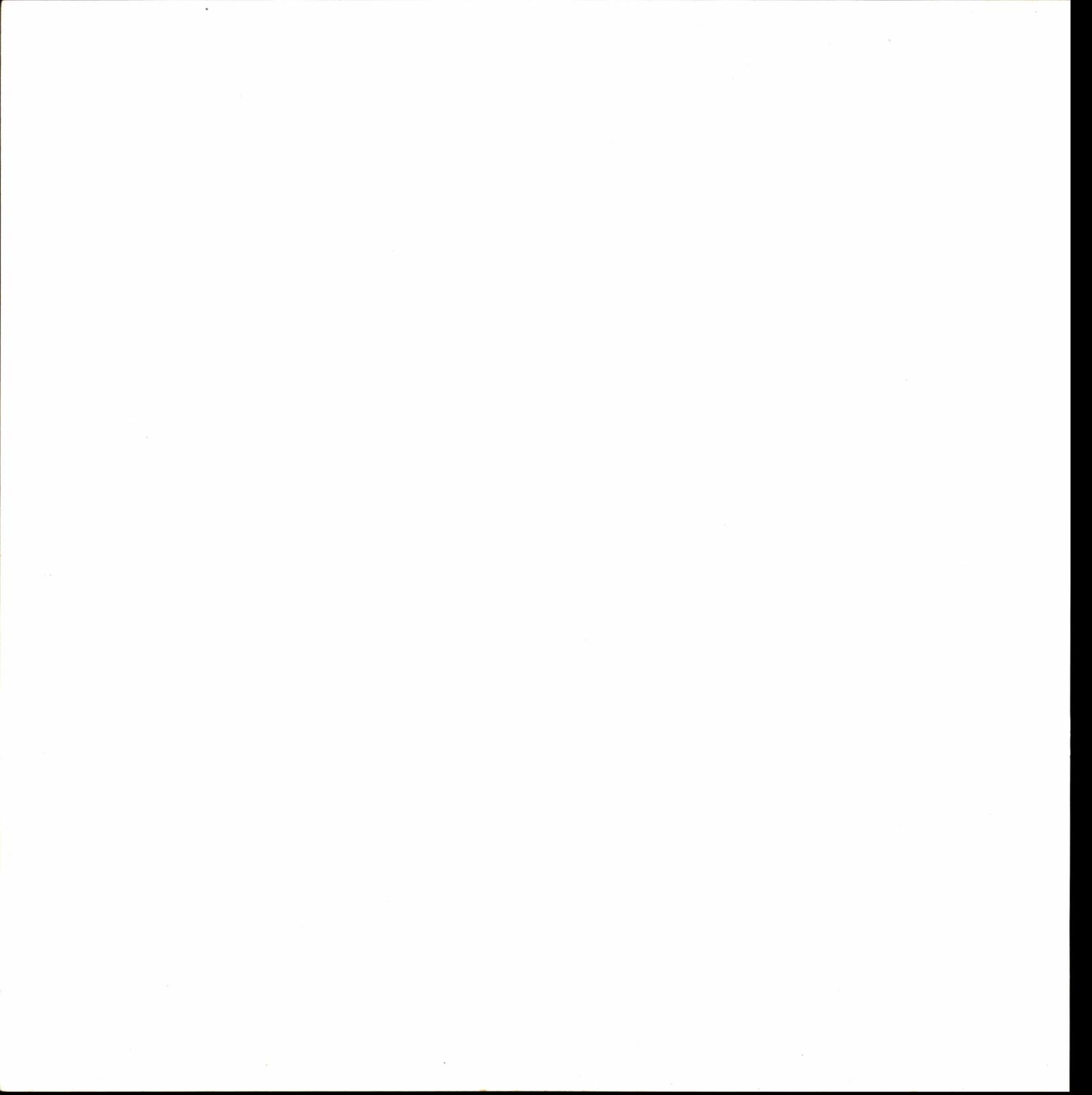
submit the following thoughts as formulated by Mr. Duncan Stuart and Mr. Manuel Bromberg of the faculty of the School of Design, N. C. State College.

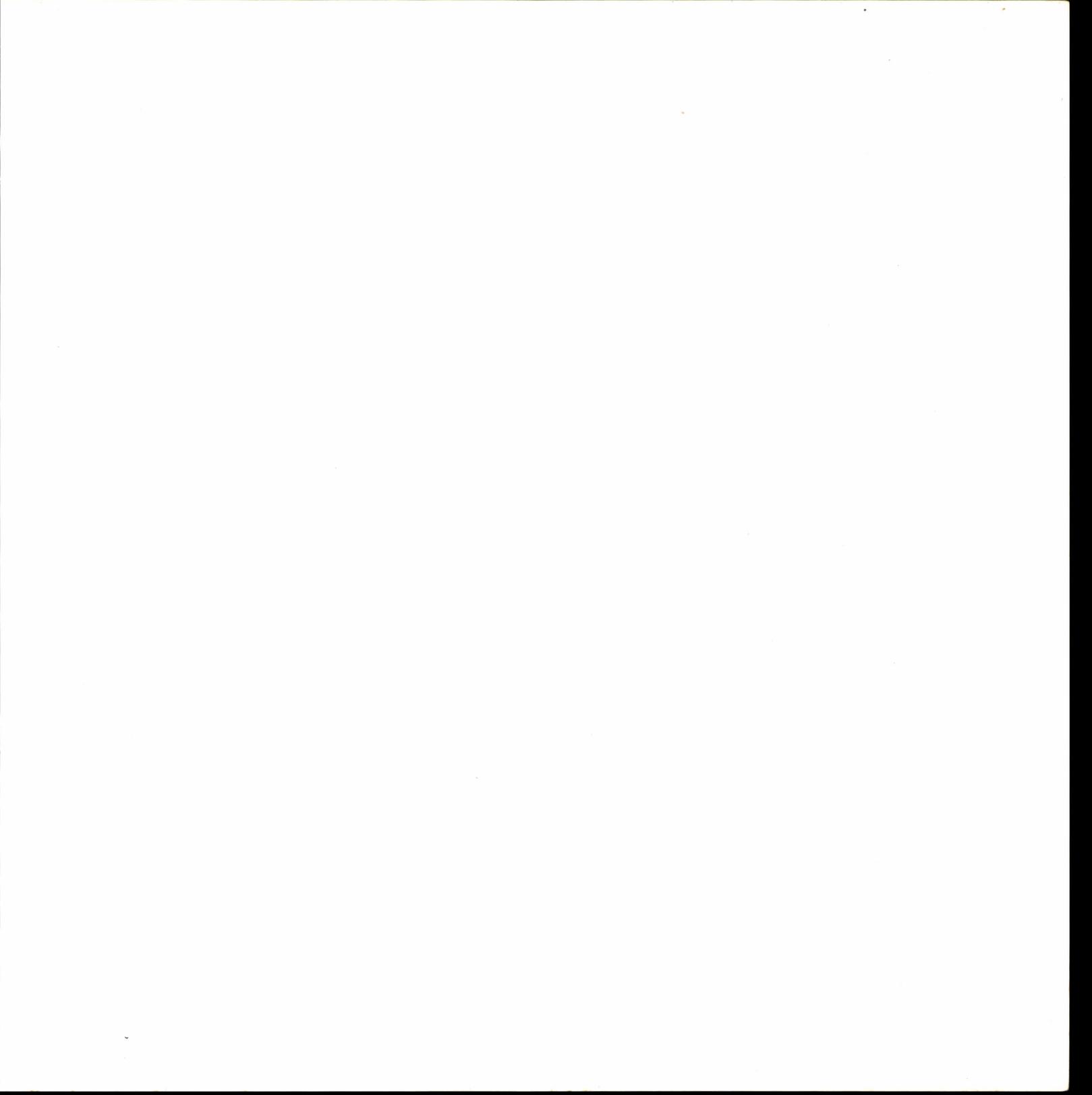
DUNCAN STUART MADRIGAL



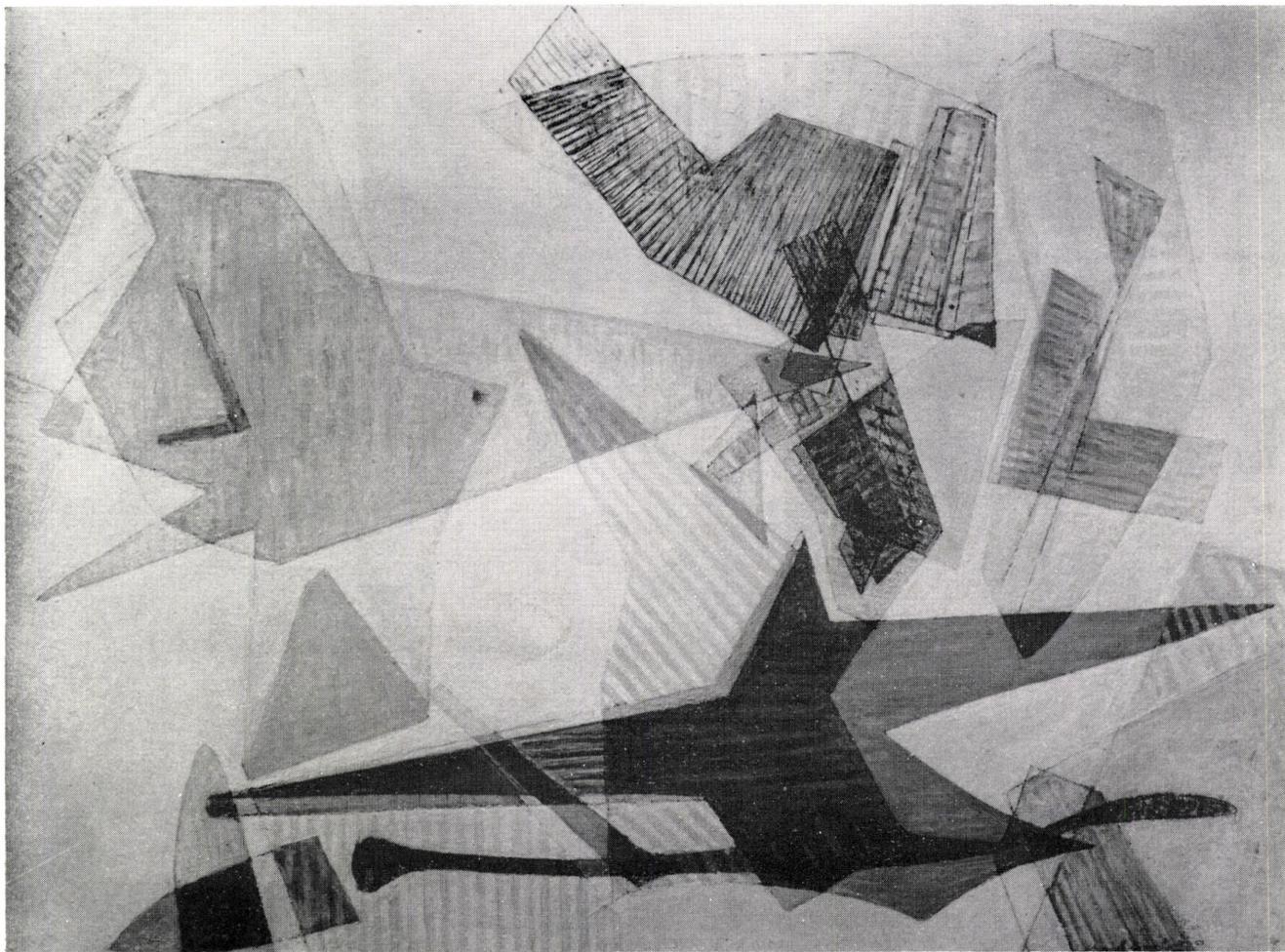
you ask what influence the ideas of bucky fuller have had upon me as a painter—and i must reply, in all humility, that i can not tell you what i think you would like to know. i can tell you that the part of his world which has been shown to me through talking with him and helping to develop principles and ideas has led me to a much richer experience in terms of my own world. perhaps the greatest advantage that any of us get as creative people from so multi-faceted a fellow is that we are stimulated to purposeful exertions which,

at the time, seem to outstrip our abilities. these exertions, in my own case, have uniquely strengthened and deepened my will to go on with whatever i feel i must do. as for searching out any emergent forms reminiscent of those we have seen in **ENERGETIC GEOMETRY**, i would say this would be beside the point. such forms are bound to appear in all things. fuller's gift to me, as a painter, has been of a more poetical nature—that is, to not comment about things but to be them.





Benjamin B. Taylor



MANUEL BROMBERG FLOATING FORMS IN WHITE SPACE

I believe there is no set hierarchy of the importance of experiences for a painter; therefore I cannot evaluate Bucky's contribution to me. However, all things that I love usually show up in my work. Bucky's space and structural ideas will

if they haven't already. By that I mean that I do not intend to take his space ideas or geometry and, so to speak, color them, any more than I would try to imitate a flower. I am simply grateful that they both exist and are free gifts.

That there exists a general pervading attitude concerning tensile consideration is increasingly evident and we find manifestations at random of this search. To illustrate the point we may cite the British Exposition currently in progress. One hundred years ago another British Fair was prophetic in predicting future developments. Specifically, Paxton's Crystal Palace had the greatest influence. Today we discover the symbolic lozenge illustrating a tensile conception in the form of discontinuous compression. Other buildings also manifest the pervading feeling but this one example will suffice. Whether we may consider this structure prophetic is unanswerable at this point but we may find it a significant manifestation of a new structural and spatial concern. What effects these principles will have upon the architecture of the future are difficult to foretell, but the assurance exists that they will be increasingly considered.

The specific affects of the energetic geometry theory and its derivative structures may become apparent from the illustration of the project for the Brewer house by Mr. James W. Fitzgibbons of the N. C. State College School of Design. We find here a practical application of the geodesic truss as an enclosure for the spatial environment of family life. The adaptability of these structures, when creatively handled, towards a fuller enjoyment of living in association with nature and man is readily apparent. Here we find the amenities of a richer life in

keeping with the advantages possible from our industrial economy and sociological advancement. The use of this structure in this project brings into focus several interesting considerations.

The most remarkable aspect is the pervading feeling of space. Nor is this feeling contradicted when one considers the usable space. This commodity which is so precious in our contemporary structures that we must devise every conceivable means of utilizing each cubic foot is found in such abundance that we need no longer box it in. The screening elements no longer need be fastened to the structure—cornered in and mitered down, so to speak. As a practical manifestation we may point out that the cost per cubic foot of this as-yet-non-industrialized structure, is at an advantage of 2 to 1 over industrialized structures. It is here that we realize that this stage is still a realization of only about 1/3 of the available potential. It is a trial balloon, but one with abundant assurance of success. An examination from the standpoint of the tenets of architecture, namely strength, beauty, utility, may here be introduced in order to follow some order of evaluation.

The requirement of strength is confirmed ten fold. The advantages of the tensile system have already been discussed but further considerations should be taken into account. The strength inherent in compound curvature of shell organisms is

well known. Here we find this principle comprehensively adapted. The aluminum struts and tension cables, aside from following the geodesic lines already mentioned, enhance their strengthening possibilities by complete triangulation. As a further advantage the mass of material is reduced to a minimum. We find then, an avoidance of that which Louis Sullivan called the "fool's equation," namely, the use of heavy structural materials whose tendency to destroy the building approached their ability to support.

Aesthetically, much need not be said. However, for those whose concept of beauty is the expression of structure, may we ask, "Need there be a greater clarity?" It is a dynamic structural reality non-inhibited and non-arbitrary. It constitutes a graceful expression of the comprehensive tensile integrity upon which it is based.

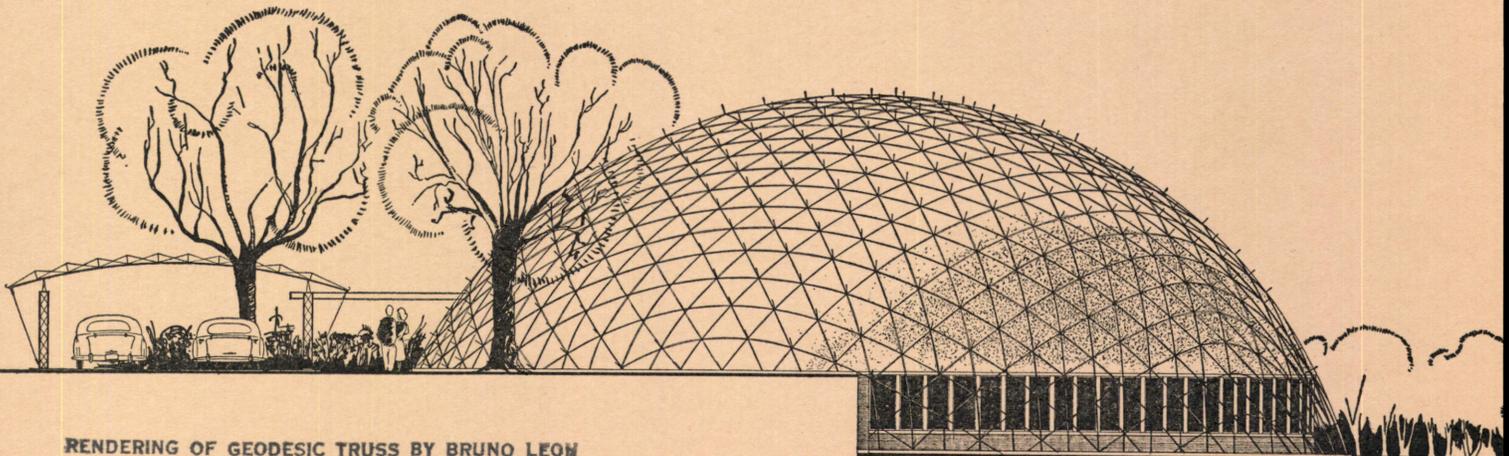
From the viewpoint of utility we avoid the rather common fault of most contemporary architecture, which is non-flexible

yet compact space. The circle as a sociable form is manifest in such common phrases as "a circle of friends" or "a friendly circle" but aside from this fact there exists an order and logical quality to the form not inherent in "boxes." We discover this demountable structure to be readily flexible whether viewed from the standpoint of an increasing family or an increasing awareness of the relationship between purely mechanical and living space.

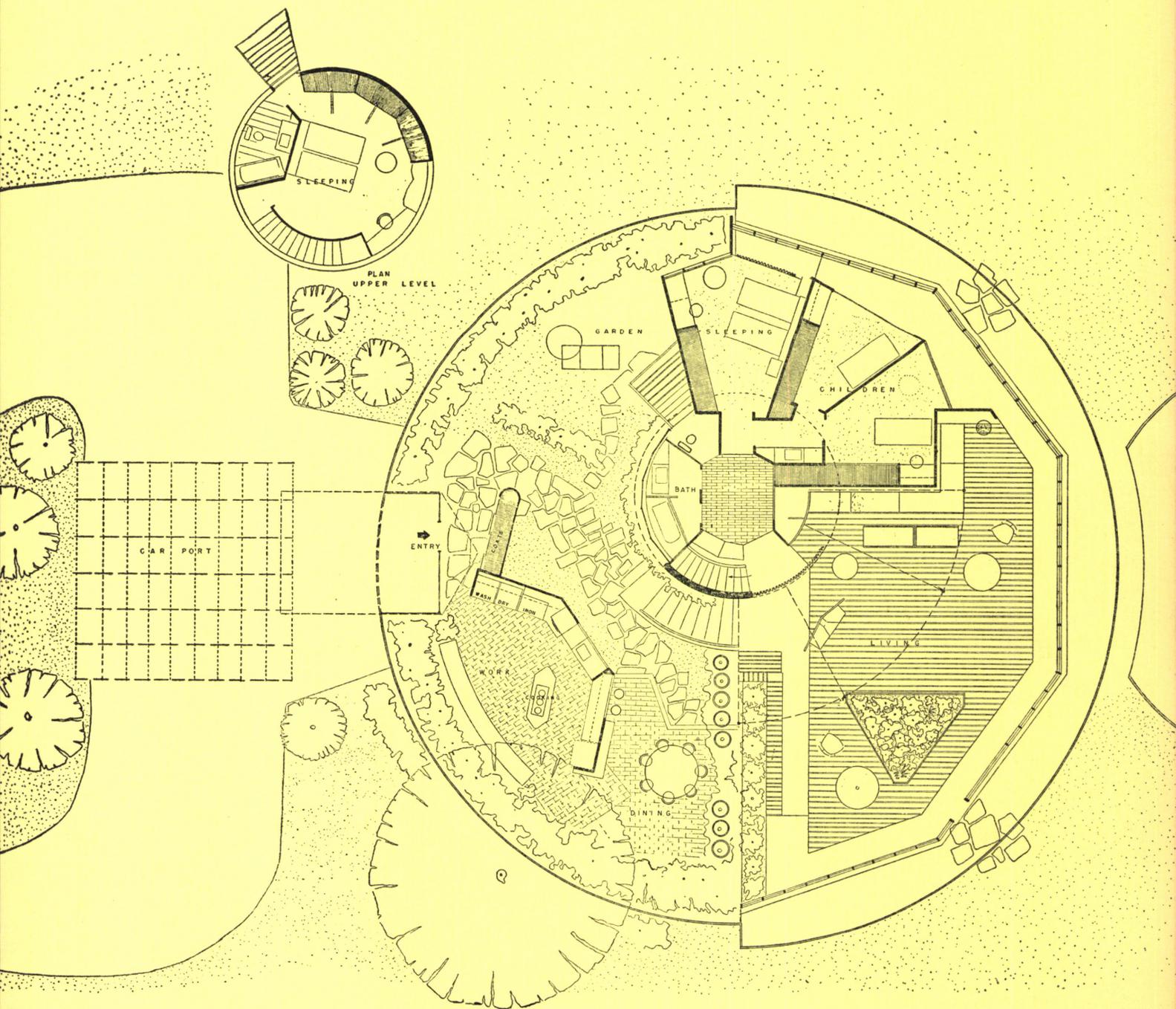
It is not to be assumed that the progress already made is conclusive. Rather, the feeling must be maintained that this theory of tensile and spacial integrity is an INVENTION and as an invention it will serve only as a temporary advantage. There are, however, certain aspects dealing with concepts, principles and scientific discovery of the universal and infinite which more properly should be called DISCOVERY. These first successes are only skirmishes along the surface of a new structural and spatial EXPERIMENTAL phase towards a greater clarity with the advantages of a comprehensive tensile system.

—BRUNO LEON.

ARTICLE COPYRIGHTED BY BRUNO LEON
ASSIGNED TO FULLER RESEARCH FOUNDATION



RENDERING OF GEODESIC TRUSS BY BRUNO LEON
COPYRIGHT BY FULLER RESEARCH FOUNDATION
STRUCTURE PATENTED BY RICHARD B. FULLER



STAFF

EDITOR

James L. Brandt

ASSOCIATE EDITOR

John Faulk

STAFF

Bruno Leon

Hardinge Menzies

John Caldwell

Jim Sherrill

Charles Sappenfield

Sherman Pardue

Pete Norris

BUSINESS MANAGER

Robert Stone

FACULTY ADVISER

Duncan Stuart

CONTENTS

- 3 In Philadelphia Practically Everybody Loves My Baby
DONIPHAN LOUTHAN
- 4 The Film In Architecture
HARDINGE MENZIES
- 6 The Flexible Building
GEORGE MATSUMOTO
- 9 The Stamp of Two Defects
**DONIPHAN LOUTHAN
JAMES L. BRANDT**
- 12 As For a Shelter
HENRY DAVID THOREAU
- 17 Basic Design
S. NOWICKI
- 25 "She Done The Best She Knowed How"
JOHN FAULK
- 30 Tensile Integrity
BRUNO LEON

THIS MAGAZINE WAS ORIGINATED BY THE STUDENTS OF THE SCHOOL OF DESIGN AND IS MAINTAINED BY STUDENT CONTRIBUTED FUNDS AS AN INDEPENDENT STUDENT PROJECT

NOW TWO ISSUES HAVE BEEN PUBLISHED. THE FIRST, CALLED MATTHEW NOWICKI RECEIVED A GREAT DEAL OF PRAISE. WE WHO WORKED ON IT ARE VERY PROUD. BUT AMONG THE ROSES THERE WERE A FEW BRICKBATS TOO. WE HOPE THE FAULTS OF THE FIRST ISSUE HAVE BEEN REMEDIED. HERE, THEN, IS THE SECOND ISSUE CALLED MISCELLANY. THE THIRD ISSUE WILL HAVE A NEW EDITOR AND A NEW STAFF TO CARRY OUT HIS IDEAS OF WHAT A MAGAZINE OF THE SCHOOL OF DESIGN SHOULD BE.

PUBLISHED 3 TIMES A YEAR
PATRON SUBSCRIPTIONS \$10.00 YEAR
REGULAR SUBSCRIPTIONS \$4.00 YEAR
SINGLE COPIES \$2.00
COPYRIGHT—1951