The Design Process
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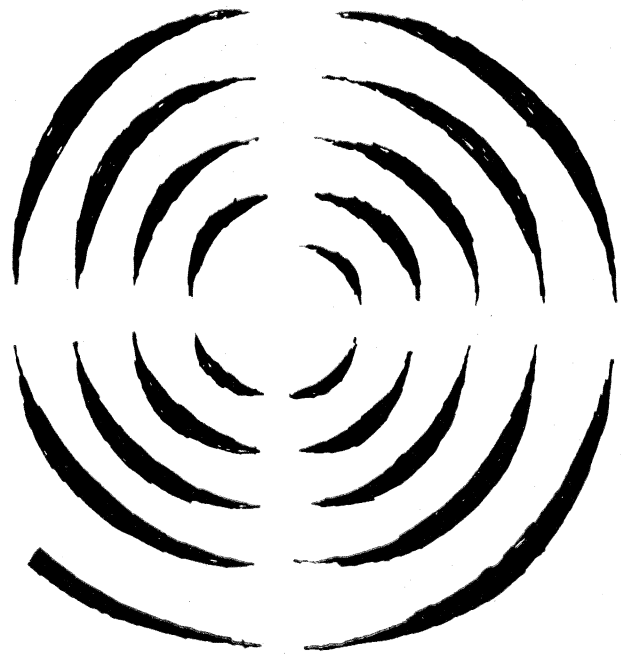


The spiral symbolizes radio and WVIP. The form is not static, but dynamic and radiating outward. An entrance mural repeats the spiral and adds the suggestion of sound and hearing. The new trademark design is a vibrant spiral giving the impression of expanding waves. It is hoped that WVIP will have an audio signature — a reverberating, echoing spiral noise — that will be used at station breaks.

THE DESIGN PROCESS

There are two aspects to the design process. First, there is the exploration and discovery. Second, there is the synthesis and discipline. The final design is a product of both these directions.

I am going to ask you to imagine an architectural problem in the abstract. We are trying to see the theme or idea of a building before we have a design. Of course, at first we don't see the theme; all we see is an undigested obstacle given to us by the client. The problem has no form and no direction. It is nebulous and complex. Moreover, our perception is distorted by prejudices, and habits, and especially by outside influences. We must try to look and see clearly.

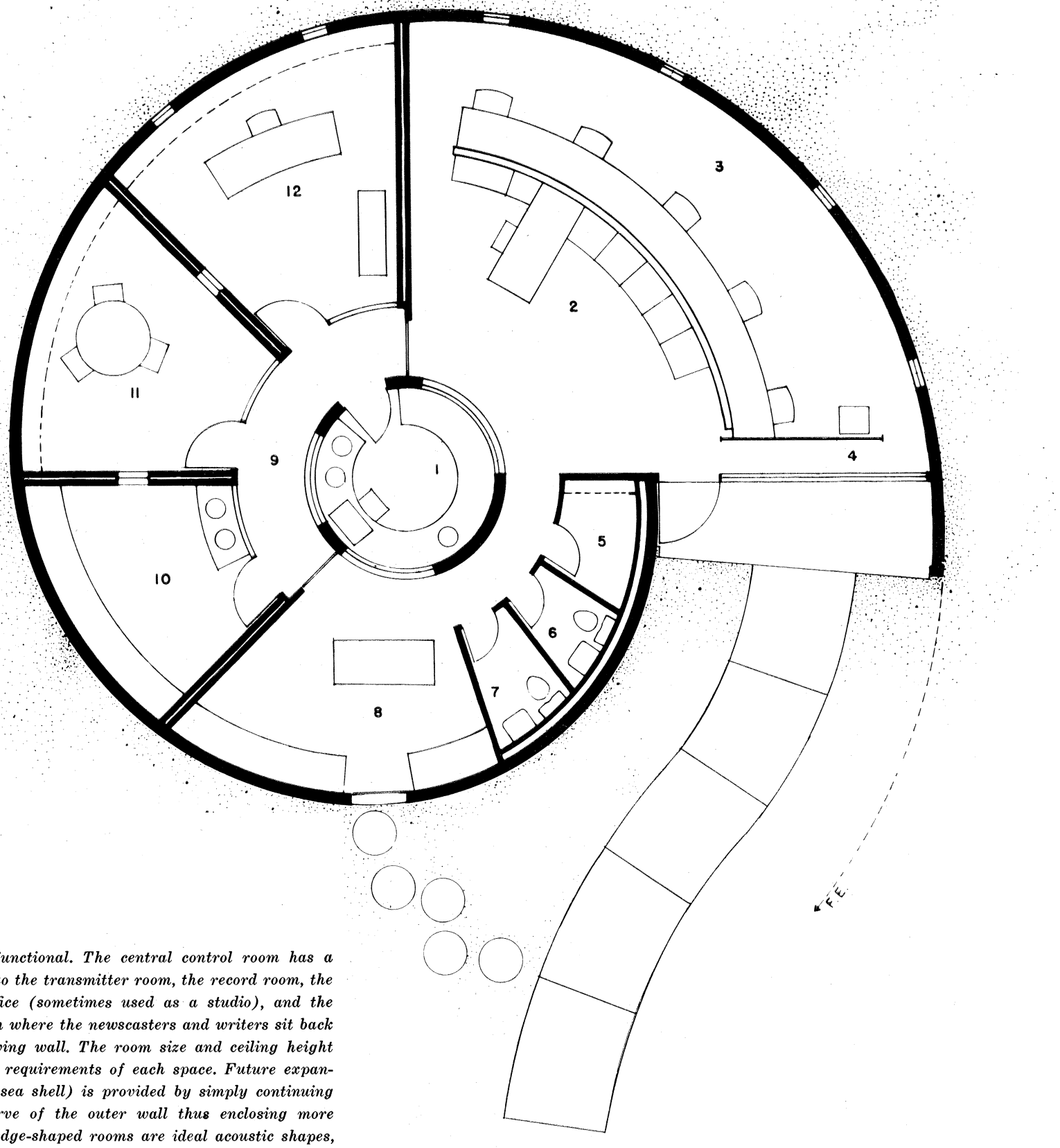
First, the functions. Of course, narrow functions do not in any way define an architectural problem. Beyond the usual itemized lists of elements, there is the organization of the parts — the structure of life within the building. We must look for this form. We may find, on study, that one element dominates all others, or that all the parts are equal. We may find a subtle crystalline interdependence, or the elements may be quite independent of each other. As we explore the problem with open eyes a diagrammatic form begins to appear. We do not yet have a design in mind, but we already sense an organic entity.

It is important in searching out the functional relationships to see psychological as well as practical ones. It is not enough to see only facts and to construct a pattern of facts. The form, which emanates from life within, will have a "mood." Is it too farfetched to say that before we reach an architectural design, we know adjectives that will describe it? Not to do this may mean that we produce a school that "works" but looks like a factory, or a shopping center that "works" but looks like an office building. We must discover the qualitative as well as the quantitative relationships.

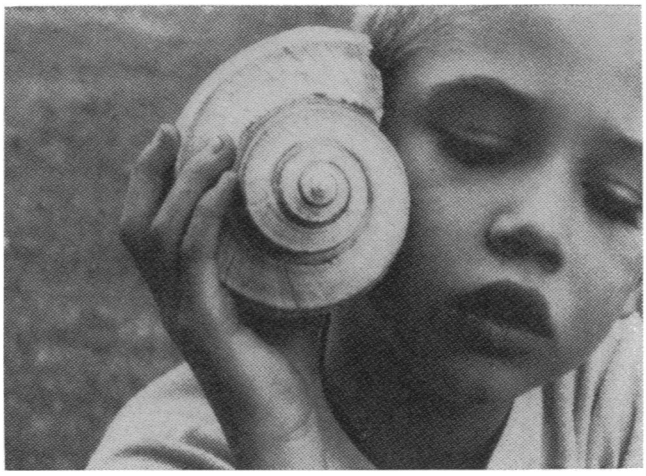
Second, let us look at the site and environment. Here, too, the problem is affected first by obvious requirements, and then by more profound demands. We are all trained to solve site problems — slope, drainage, approach, orientation, etc. Too often in practice the architecture is simply imposed on the site. This is all wrong. The site is not something separate, but an integral part of the problem. Its nature must be fully digested along with the functions so that the most subtle implications of the environment are reflected in the final solution. We must sense tension or repose in warped land, an empty plain, or space between existing buildings. Examples? We think of the melding of natural and human functions at Falling Water, or the subtle placement of buildings over the years in the Piazza San Marco, or the continuity of landscape and architecture at Versailles. The architecture is an integral part of the space around it. The fact that the site in the first example is left practically untouched, and that in the second example the site is entirely man-made, does not affect the principle. In both cases architecture and environment are unified. During the design process we must find this unity.

Third, let us consider structure. Here again we search for unity. As we study the functions and the site we must see the structural implications. Open exterior walls, or closed-in bearing walls, unbroken spaces with high ceilings, or short spans with low ceilings — we sense the structure texturally and spatially, almost before we know its exact form. We see it as part of the problem, not as something to be injected into the problem.

Beware of letting the tail wag the dog. Every architectural period has a bias and recently we architects have warped the design process toward structural experimentation at the expense of other aspects of the problem. Small houses with small rooms are spanned with elaborate



The plan is functional. The central control room has a direct view into the transmitter room, the record room, the studio, the office (sometimes used as a studio), and the reception room where the newscasters and writers sit back of a low, curving wall. The room size and ceiling height vary with the requirements of each space. Future expansion (as in a sea shell) is provided by simply continuing the spiral curve of the outer wall thus enclosing more space. The wedge-shaped rooms are ideal acoustic shapes, and the entire inside of the building is finished off with a soft, acoustic fiber, shot on with a spray gun. The air-conditioning and heating room is centrally located on the roof with air ducts fanning out like a star to the outlets in each room. The exterior is rough stucco.



trusses. In large buildings entire roof loads are brought to sensational concentrated points, even though these interfere with circulation. Buildings are corrugated, waffled, and overarticulated without thought of the fidgety mood that these devices create, and "economy" — that all-important aesthetic principle in pure structure — is completely lost in exhibitionism.

Bear in mind that we are not talking about an isolated structural problem, as does Bucky Fuller. We are talking about an architecture where all aspects of the problem are made homogeneous. The structure may or may not be pure in itself.

Take for example, Ronchamp. Traditionally, churches are symmetrical and appropriately so. Span and thrust produce symmetrical engineering solutions which are pure statements of an ordered universe. Moreover, the centrality of the church and spiritual world is reinforced in axial, finite terms. But perhaps Le Corbusier discovered in his church problem not power, but love — not authority, but mystery. His structure is asymmetrical and complex; the space uncaged and infinite. The structure is only an extension of an endless spatial concept that permeates the design.

There is, it seems to me, another factor to be considered during the design process. The architectural problem must be seen in its place in history. Unlike the other arts, architecture cannot ignore the present, or express doom or disaster, or satirize its times. The writer may choose to be negative. The architect must be positive, whether he likes it or not. Therefore, we must discover the best in our times, not only technologically, but also ideologically and must relate our design to these positive forces. In the end we hope to discover a solution unified with our era (as Mies has said).

So far, in this discussion, we have tried to emphasize that the design process is one of exploration and discovery and synthesis. We have suggested that the problem when fully understood and stated becomes the solution — that we have only "to see it steadily and see it whole." This is a comforting statement, for it means that you and I are not involved in a vague mysterious profession, but in a perfectly clear one that can be explained. We do not solve our problems by sheer genius or sudden inspiration, but by a process of exploration and analysis. We design architecture as the engineer designs a wing structure, only we take into account many, many more factors. But in the end, like the engineer, we are only an instrument expressing impersonal, outside laws.

I must now hasten to say that this is not a complete statement.

Back in 1925 in *Towards a New Architecture*, Le Corbusier takes time out from extolling the beauty of functional design to write this: "You employ stone, wood and concrete, and with these materials you build houses and palaces; that is construction. Ingenuity is at work.

"But suddenly you touch my heart, you do me good, I am happy and I say: 'This is beautiful.' That is Architecture, Art enters in."

What is touched on here is personal expression. This doesn't mean the ability to put things together logically or to do research, or analyze with sensitivity and understanding. All these actions derive their force and meaning from the program itself. Personal expression comes from *you*. As you discover the nature of the problem, you must also discover your relation to it. You cannot keep it at arm's length. Your senses react, and you find something of yourself you did not know existed. You are involved in the problem, saturated in it. You develop the program and it develops you.

Someone asked Auden about his poetic process. He said, "I don't know what I am until I see what I say."

There is a Zen Buddhist belief that the artist and the production of art become one — that the painter and the painting are fused by some greater moving spirit. Something of this sort happens in architectural design. You cannot, like the composer, indulge in pure personal expression. You cannot, like the engineer, maintain a detached scientific point of view. If you are an Architect your spirit and the spirit of the problem must blend together. Then, and only then, will the design process lead to a truly expressive and unified solution.

Edward Larrabee Barnes was born in Chicago in 1915. He studied architecture at the Harvard Graduate School under Walter Gropius and Marcel Breuer and after graduation he worked in their office for a short time. During World War II he served with the Navy as a naval architect at Hunter's Point Navy Yard, San Francisco. He opened his own office in New York City in 1948.—His career in design has been varied, including an aluminum prefabricated house for Consolidated Vultee Aircraft. Mr. Barnes has been visiting design critic at Yale University and Pratt Institute. — Interesting works in his office at the present time include: SACRAMENTO REDEVELOPMENT: *700 tower and garden apartments, six blocks from the capital of California.* — PAN AMERICAN AIRWAYS: *The redesign of the complete corporate identity including the interiors of the new jet planes, new ticket offices, new lettering, color schemes and trademark.*