

# LSD S D A DESIGN TOOL ?

*LSD has roused storms of controversy and has been the subject of nationwide publicity, often of a sensational kind. One of the less publicized aspects of the psychedelic drugs is their possible use in creative work. In an attempt to assess their value to the profession, P/A interviewed a number of architects who have taken the drugs on an experimental basis, and asked such questions as: Do the psychedelics heighten the ability to visualize three-dimensionally? Do they enhance creativity and problem-solving? Do they have a positive effect that outlasts a particular session? This article presents our findings, including extensive verbatim reports by architects and the design uses to which they put their psychedelic experiences.*

Drugs that have a “psychedelic” effect on the human mind are, in their general order of potency, peyote, mescaline, psilocybin, DMT (dimethylthryptamine), and LSD (dextrolysergic acid dimethylamide). The word psychedelic, meaning “mind manifesting”—from the Greek “psyche” (mind) and “delos” (manifest)—was first associated with the drugs by psychiatrist Humphrey Osmond, Director of the Bureau of Research in Neurology and Psychiatry in Princeton, N.J. Dr. Osmond, in a letter written to Aldous Huxley, versified: “To sink in Hell or soar angelic/Just take a pinch of psychedelic.” It seems a more appropriate term for these chemicals than their medical counterpart, “hallucinogens,” since hallucinations are rarely listed as one of the effects of the drugs. Architects report that perceptions as such are heightened and changed, but they are based on real—as against imagined—objects present in the physical environment.

It is not yet accurately known what these chemicals do to the brain. Since LSD, for example, completely disappears from the system 30 to 45 minutes after ingestion, the drug is thought to trigger the action of some other, as yet unidentified, chemical. The drugs alter the brain’s chemistry, certainly, and they seem to inhibit the activity of another chemical, serotonin, that regulates the decoding processes of that part of the brain where raw, incoming sense data are interpreted and transformed into factual information about the environment.

A number of architects have added to the extensive evidence of the drugs’ use as instruments for enhancing perception, for “training in visualization.” They report that, under the psychedelic effect of the drugs, visual and auditory acuity (in addition to general awareness) are “revolutionized.” Apparently, the taker has the sensation of seeing for the first time, as children must see before they learn labels for their sense impressions of objects—directly, on contact. Colors seem to throb, textures vibrate, objects appear luminescent, everything is imbued with the glow of spring mornings. Aldous Huxley, one of the first to experiment with the perception-heightening effects of the drugs, which he described in his book, *The Doors of Perception*, even termed the experience as glimpsing the “morning of creation.” Many say that the visual sensations are often accompanied by a sense of oneness with the universe and a disappearance of the feeling of being separated from other people and the physical environment. What is consistently reported is that the drug-taker remains acutely, totally, *conscious* throughout—not sleepily, dreadingly benumbed, as from too much alcohol. Indeed, the effects are termed by advocates as “consciousness-expanding.”

Individuals are reported to derive from the experience with these chemicals what native endowment they bring to it: The

more visually oriented one is, for example, the more likely one is to have a decidedly visual experience. In addition, architects have reported that, for the visually sensitive person, the effects of mescaline and LSD include an increased ability to visualize three-dimensionally, to see images vividly—in general, a heightened perception of spatial relations. Abstract thoughts apparently are transformed into visual images; words become irrelevant.

Moreover, one does not forget everything the next morning. Because it is a conscious experience throughout, it is retained, and thus has been described as a learning experience.

#### LSD AND SPACE PERCEPTION

**K**yo Izumi, an architect practising in Saskatchewan, Canada, has described his own perceptual experience with LSD as follows:

**“The space and the elements which define this space, the color, the texture, the forms, shades and shadows, the planes, the solids and voids, become points of reference and yet meaningful in themselves. . . . The elements of architectural design, as partially listed here, each attain visual significance in order and intensity to fit the mind’s needs. . . . It heightened my ability to visualize in greater clarity the interrelationship of the elements of design, which are — to use the jargon of the architect — scale, proportion, color, texture, shade, and shadow. . . . In my case, the LSD experiences acted as a form of catalyst in the thinking process during the course of design. . . . My new awareness, and the subsequent accompanying phenomena of being able to experience simultaneously in series and in parallel the numerous perceptual effects of space and all its elements, would not have been achieved in almost an instantaneous fashion without the aid of LSD.”**

As Izumi’s description makes clear, the quality, as well as the quantity, of visual perception is altered. Usually, physical objects and the environment are not seen as things in themselves, comprised of their own material, sitting within their own universe of weight, color, form, and texture. The preconceptions with which we habitually perceive objects—a chair as something to sit on, a lamp as something that throws light—are transcended, and objects are experienced as things in themselves, not merely as serving some particular function, but as colored, textured, seemingly alive *forms*. Architects report that the relevance of the psychedelic drugs should be apparent: A substance that enables man to increase his visual awareness, that heightens his ability to visualize three-dimensionally, might have serious and far-reaching applications to the practice of architecture, especially as buildings become more complex.

#### LSD AS AN AID TO DESIGN

**K**yo Izumi took LSD in 1957, when much of the research being done with it concerned its “psychotomimetic” effects—that is, the similarity of visual perception in schizophrenics and normal people experiencing the effects of LSD. The emotional experiences that accompany the perceptions differ, however, since normal people maintain their own consciousness and basic patterns of emotional response; the “mimetic” effect of LSD is that normal persons can *not* perceive

the environment the way a schizophrenic does and psychologists believe that how and what one sees largely determines what one feels in response to that seeing. This is not to say, however, that the way one sees when using LSD as a psychotomimetic is the same as the way one sees when the drug is not being used for that purpose. In fact, that is apparently how some of the extraordinary properties of LSD were discovered; some people just did not begin to perceive schizophrenically. Instead, they felt they were “seeing for the first time.”

In approaching the problem of designing a mental hospital, Izumi knew that the mentally ill see the world differently than other people and that their altered perception influences their moods and feelings. LSD enabled him to enter their experiential world and thus to perceive the architectural environment as they do. The purpose of Izumi’s experiment was to discover and then to avoid qualities of design that are confusing, terrifying, and psychically destructive for mentally ill people.

Besides this specific aid to Izumi in designing a mental hospital, LSD seems to have changed his attitude toward architecture generally:

**“I no longer design for architects. I am now trying to design for human beings. . . . A most significant effect was on my concepts of aesthetics. Like most architects, I was seeing space as more of an aesthetic experience, without regard for what people would be doing in it. I now began to think of people living and working in these spaces. . . . I am much more conscious of spaces with relevance to the human being and in this sense critical of architectural spaces in which the human figure becomes an intrusion. In a similar way that some people see a ‘halo’ around their favorite subject, I am much more conscious of the ‘territorial space’ around a person that appears to move with them. . . . The acquisition of the sensitivity, and certainly the awareness of these phenomena to this intense degree, would not have occurred in such short order without the LSD experience.”**

#### LSD: THE DANGERS

**O**ne danger of LSD is its potency. One ounce contains 300,000 dosages of 100 micrograms—approximately the size of a grain of salt. Even when conditions are clinically right for its use, reactions to overdosage include extreme fear, panic, and sometimes a temporary psychosis. Perceptions and images reel through consciousness with an incomprehensible rapidity the mind cannot tolerate.

But the potency of the drug should not be confused with the drug itself. That is like saying that all driving is dangerous and that driving at 10 miles an hour is as dangerous as driving at 100 miles an hour. Furthermore, the reasons why a driver is in his car on a particular day have a lot to do with how dangerous his driving will be. If he is out for a thrill, he will be more dangerous than if he were out to demonstrate techniques of careful driving. And all of this has nothing to do with the car itself. The automobile is only a device, an instrument for getting from place to place, just as the psychedelic drugs are described by researchers as devices, tools for the exploration of the mind—a method for going from one level of perception to another, for experiencing the varied effects of a temporary alteration in brain chemistry.

A second danger of LSD (and the other psychedelic drugs) lies in the nature of the experience itself. As Osmond's verse indicates, it can be heaven or hell, and will depend, according to research findings, on three specific variables: the setting, the psychological "set" of the drug-user (his expectations, his reasons for taking the drug, his personality), and the qualities and expectations of the person supervising his use of the drug. That the outcome depends on these conditions has been amply documented. The experts apparently agree that the most dangerous situation occurs when the potent chemicals are used indiscriminately for thrills, binges, or on momentary whim. It is clear, however, that much more research is needed to determine exactly what effect the drugs will have under particular circumstances. So far, though, researchers report that, if the setting is comfortable, warm, and relaxing, the motivation of the person ingesting the drug is a serious one, and he is not psychotic (and the person with him is sympathetic and confident), the risk is minimal.

In spite of all the unknowns and uncertainties surrounding their use, the "hallucinogenic" drugs have reportedly been safely and constructively used in the treatment of psychoneuroses, frigidity, alcoholism, and even given to terminally ill cancer patients so that they can bear their pain and face death philosophically. Until Sandoz Pharmaceutical Company voluntarily stopped supplying LSD to investigators sanctioned by the National Institute of Health, some 54 research projects were being carried out (primarily into alcoholism, psychoneurosis, and schizophrenia).

What would seem to emerge from the serious literature on the drugs is their unique, "midwife" quality. Dr. Robert E. Mogar, Associate Professor of Psychology at San Francisco State College, has commented, "Whether expanded awareness or increased insight accompany these unhabitual perceptions and altered frames of reference is *not* a function of the chemical agent." Apparently *none* of the effects of the drugs are simply spontaneous and general; results depend on how they are used and on whom. It would seem that architects, then, even though their visual abilities are high, might not experience the euphoria of imagery recounted by Huxley and others unless the situation is so structured and supervised that they can.

#### THE MEDICAL EVIDENCE

To sum up the medical evidence concerning these chemicals, Dr. Sidney Cohen, Chief Psychiatrist at the Veterans Administration Hospital in Los Angeles, has stated: "Psychotic reactions lasting more than 48 hours after ingestion totaled less than two for each 1000 [mental] patients, and only two for each 2500 normal volunteers"—in *all* the clinical work done to date with LSD. C. C. Dahlberg, a prominent New York psychoanalyst, has used LSD for years in psychotherapy. He has said that he never gives it to a patient before three months of analysis have been completed, and that he has not yet had an unfavorable reaction. Finally, Dr. Mogar summarizes the results of 300 experiments using LSD as a therapeutic agent:

**"Despite great diversity in the conduct of these studies, impressive improvement rates have been almost uniformly reported. . . . Based on findings with more than 1000 alcoholics, LSD was twice as effective as any other treatment program."**

Mogar also believes that the possibility of positive bias in these

reports is offset by their consistency and the divergent theoretical persuasions of the researchers.

In the context of the recent publicity about these drugs in the press generally, which has tended to stress the sensational and the more negative aspects of LSD, it is interesting to note a recent report of the Subcommittee on Narcotics Addiction (which, technically, has no business with the non-narcotic, non-addicting LSD). The subcommittee examined the records of 52 people who had taken the drug privately, without medical supervision, and who were admitted to the psychiatric division of Bellevue Hospital in New York City with "acute psychoses" induced by LSD, and found that 12 of the 52 had "underlying psychoses or schizoid personalities" before they took the drug, and "most of those with acute LSD psychoses recovered rapidly, 30 becoming oriented and normal in less than 48 hours. In an additional 10 patients, the psychoses were resolved in less than a week."

It would seem, then, from the available literature, that, for normal persons administered the drug in the proper setting, psychedelic drugs are not routes into madness. But, as yet, too little is known about how the drug actually works and what the long-term psychological and physical effects of its use are to make them available to the general public for self-experimentation. Approximately 5 per cent of the U.S. population is believed by psychiatrists to be predisposed to schizophrenia; an untold number in addition harbor psychotic inclinations. For these powerful and unpredictable drugs to get into such hands is dangerous both for them and for society.

#### LSD AS AN AID TO CREATIVITY

Architects are apparently interested in the psychedelic drugs because of their perception-enhancing qualities, but Neill Smith, a San Francisco architect, is interested in them because of their effect on his ability to function creatively. He told P/A:

**"I felt the effects of my two experiences with LSD to be positive and beneficial. . . . About the application of psychedelics in the field of architecture: It seems to me that the value of these drugs cannot be discussed apart from their effects on the total personality of the individual involved. My own experience effected changes in my thought processes and my abilities in dealing with three-dimensional imagery. But, even more importantly, there was a change in my approach to architecture through changes in personality structure and needs of my psyche. My whole approach to design has become far less concerned with conceptual structure and preconceived notions of form or ideal content. Instead, my interest has been on an increasingly more flexible, existential, or ontological design process. It is particularly in this respect that I think LSD and the other psychedelics seem to have the capability of enormously enhancing the human potential.**

**"In observing myself and others who have taken LSD, DMT, and the other psychedelics with a constructive orientation, there seem to be two general effects on almost any level. One is the enhanced ability to function; the other is the greatly increased degree of personal and intellectual freedom that develops after taking the drugs."**

Henrik Bull and Eric Clough, both California architects, took mescaline in creativity experiments carried out by the Inter-

national Foundation for Advanced Study in Menlo Park, California. Like many of the research results reported, it was exploratory research that remains to be verified by more controlled studies; the results obtained are apparently in general obtainable only when the subjects are directed by specially trained persons. Henrik Bull commented:

"My experience during the session was an unbelievable increase in ability to concentrate and to make decisions. It was impossible to procrastinate, one of my favorite hobbies. Cobwebs, blocks, and binds disappeared. Anything was possible, but I was working on very real and rather right problems [during the session]. The designs were more free, but probably more from the standpoint of removing blocks in the consideration of what I felt the client might accept. Three designs were outlined in the three hours. All were accepted by the clients; one was tossed out after I saw that a better solution was possible. Perhaps this is the greatest long-term effect—a greater flexibility.

"There is definitely an enhancement of the ability to visualize, but my experience was that I became a better Henrik Bull, not Gaudí or Wright. I do feel that every architect should have the experience, to see what potential lies within himself. Beyond the usefulness, the experience was highly enjoyable and really quite fantastic."

#### PROBLEM-SOLVING UNDER LSD

Bull's point that he was not suddenly transformed into Wright or Gaudí is an important one, illustrating that these drugs do not work miracles, just as they are not yet believed to be destructive. Commenting in greater detail on his "session" in the International Foundation study of creativity and the psychedelic drugs, he continues:

". . . I had felt for a long time that my life was plagued with necessary but relatively unimportant detail work that was interfering with my creative work. The detail work was in competition with the design work, and both were suffering. Beyond that, I felt that my design efforts were often repeating old ideas and should be more free in spirit. These are the reasons I took mescaline. . . . [After the morning session of listening to music], I was looking forward to the opportunity to attempt some of the professional creative problems we had been told to bring with us. There were four of these, ranging from an extremely complex state college building with a program of 82 pages, to a rather simple vacation house. . . .

"The simplest problem was attacked first. Almost immediately, several relationships that had escaped my attention became apparent, and a solution to the spatial relationships followed soon after. I avoided looking at a watch throughout the session, but I would guess that 20 minutes had elapsed. Quite normally, I would stew and fret for weeks before coming to such a solution. Not to be misleading, on a simple problem the period at the end which is truly productive is often quite short under normal circumstances, but in any case a matter of hours. . . . Quite literally, I had only a head to think and a hand to make sketches and notes. . . . The first problem completed, I felt very exhilarated, and could not wait to get

on to the next.

"This was basically a site problem, locating a number of condominium houses on a very beautiful piece of property. The decisions came very quickly and I outlined a solution which pleased me in a very short time. In passing, I investigated the economic yield to my client for several similar solutions and decided on what I felt was the best one. Why not do a typical floor plan for one of the units? This, too, was accomplished without my usual number of false starts. . . .

"[He began to work on a house for a client who had turned down several previous schemes]: This time, my approach to the problem was unrelated to all previous attempts, and I looked at the challenging site in a new way. I really believe the solution that resulted in a few minutes is better than any of those which preceded it. This is a job which has taken several hundred hours of time, and represents a great money loss for the office. Why had I never seen this solution before?

"I should emphasize that the solution *could* have happened before. It belongs to the same family as my earlier work. The only real difference was that the solution I felt right about appeared in almost no time at all. . . .

"The day had started at six in the morning and ended 22 hours later. It was probably the shortest and most enjoyable day in my life."

#### AN ARCHITECT DESCRIBES HIS EXPERIENCE IN FULL

Architect Eric Clough took part in the same study of creativity. He told P/A of his two experiences with mescaline in detail. He pointed out some of the dangers as well as the benefits for him, which included a great improvement in his problem-solving capability. What follows is Clough's verbatim account:

"After ingesting the drug [mescaline] the first time I took it, I lay down on the floor and began to melt into the environment. I felt as if I were a mass of protoplasmic jelly that was just creeping out into and infusing with everything around it. I felt some tension and wondered why—I'm generally relaxed—and I realized that, along with this melting of my general being, my ego was melting too. I visualized my ego as a head sticking up above the protoplasm, trying to preserve itself. Once I realized that and could laugh at myself—at my ego—it just went flop and away I went. The general feeling and the mental imagery that was involved in it had to do largely with a total involvement, physically and emotionally, with the world about me, and with life in general. I tried to think about what was happening and realized that I was trying to intellectualize about what was the most complete thinking process that I have ever experienced. I laughed again at how foolish we are sometimes; we think about thinking and we think about being when it's so simple and basic to just be.

"That day, without thinking about it, I experienced a deep inner knowledge of the philosophies that man has devised for himself through the centuries. I didn't any longer just intellectually understand philosophy, but I *knew* life and I *knew* that all the philosophies are essentially and integrally the same. I realized that man makes

structures for himself—that is, constructs—which are all essentially paradoxically ridiculous, but at the same time are really necessary as ways of dealing with the world and ourselves.

“I went from seeing myself as Professor, World’s Foremost Authority, to a Zen master sitting on a mountain-top and seeing all the human constructs in a series of structures—abstract kind of geometric forms which interlapped and overlapped and stood on top and underneath. They all seemed to be the same thing and they all seemed to be very, very ridiculous. I felt that, as a living thing, I was integrally a part of life, and, while I didn’t ask for that particular state of being, neither could I accept any particular responsibility for it having happened, yet I was at the same time totally responsible for life itself because I was integrally involved in it.

“One interesting thing about the psychedelic experience is the way in which these ideas, thoughts, feelings—whatever they might be called—come to one. Normally we use words as tools to form constructs, communicate, and to think with, but in the psychedelic experience there is really no thinking process involved. Thoughts are essentially mental images—very, very clear, and complete, and integral with being, so to speak—so that the thought-process, as we normally know it, doesn’t really exist.

“During the almost two years from the first to the second experience, I would say that my general ability to think in pictures, rather than in words, was much enhanced. My ability to flow easily with life was enhanced, and therefore my creativity. There was less internal friction and a greater ability to focus on what I was doing, thinking, or designing. I don’t think I learned anything new about design, but found it easier to explore possibilities in a freer way.

“[The second session was the actual creativity experiment at the Foundation.] The problem I brought to the session was an art and cultural center on a site near the new University of California campus near Santa Cruz, California. Prior to the session, I thought about the project and discarded many different schemes. The day before the session, I had a basic construct in mind and an idea of a good solution for the problem. We were instructed to go into the session thinking about the fact that we were going to work on a particular project. There were three of us in the room that day: two physicists and myself, each working on his own project. We were told not to think about our projects as such during the morning but to be as open as we could.

“That morning, at 8:30, we talked for awhile, lay down, put on earphones and eyeblinders, and listened to stereo music for the bulk of the morning. My morning experience ended at 10:30 because I was anxious to get to work, but a program was set up so that we didn’t work until noon. So I patiently waited until it was time to go to work. I took a technicolor dream trip through history: I found myself swinging through trees with a lot of other people, but we were all pretty much simian and we seemed to be enjoying ourselves. I could see the forest—or jungle—the flowers, the other ‘people,’ having a delightful experience, chattering back and forth in words I didn’t understand but the mood seemed a very happy one. Immediately after that I was in

a cave, with prehistoric paintings on the wall, people both clothed and unclothed sitting around a fire. I was eating a great chunk of raw meat, sort of braised meat. Particularly I noticed the environment we were in—the figure drawings on the cave wall. Immediately after that, I was in either an Incan or an Aztec village, wandering around through a market place that was the center of a large square, looking at the temple which was very huge and impressive, seeing the people in the market place, looking at their mode of dress—the gold ornaments the wealthy people were wearing, stopping and eating a piece of fruit at a stand; essentially living in and being a part of this beautiful city I was in. After that, I was in a formal ballroom, dressed in what looked like one of the old tintype photographs, talking to people with a very formal approach, feeling very formal inside and noticing the architecture of the huge ballroom, the big windows made up of small panels of glass, the clothing the people were wearing, the dancing. Then I was in an ice-cream parlor in the Roaring Twenties. Everybody was having a terrific time in the 23 Skidoo style, which somehow felt very superficial. Then I was in a modern city the likes of which I have never seen. It is best described as the “City of the Future”—the kind P/A occasionally publishes as concepts for redevelopment. Everything was new, everything efficient, everything beautifully articulated.

“I sat up at about 11:00 with the strong feeling that everything having to do with the history of architecture and everything having to do with leading all architects, all designers, myself, up to the cultural point we are at now with the ability to design based on experience and knowledge of the past—that all of this was fine, but any copying of or taking directly from any past age or any other culture was ludicrous, meaningless, and had no validity in a fresh design approach. With this feeling, the prior ideas I had had about my project were all gone; I found myself in an absolute void of idea and creative thought. It was about noon; the others were aroused from their eyeshades and earphones. We had some lunch, talked awhile, and then it was time to work.

“I sat down with a sketch-pad and drew a square outline of the property, looked at it, and had absolutely no idea at all of what was appropriate to solve the problems. I must have looked at the paper for 5 or 10 minutes with an absolute blank. And then, all of a sudden, with a total flash of an absolutely clear, completed project was the cultural center—designed, built, complete before my eyes. So complete that I could walk through it in my imagination, see the architectural detailing, see the insides of the shops, and so on. It was a totally complete, finished product. So I began to do the plot plan layout. I knew I had to have so many square feet of building, so many car parkings, knew the circulation patterns. I began to draw what I saw and everything fit precisely, and, although I had a scale ruler with me, I hardly had to use it, because everything seemed to be exactly as it should be and fitted exactly as it would if I were measuring it. I doodled figures around the edge of the sheet, trying to arrive at per sq ft estimates of construction cost, total value of project, potential monthly income. And all of these factors seemed to work too, so that the project had economic feasibility. As rapidly

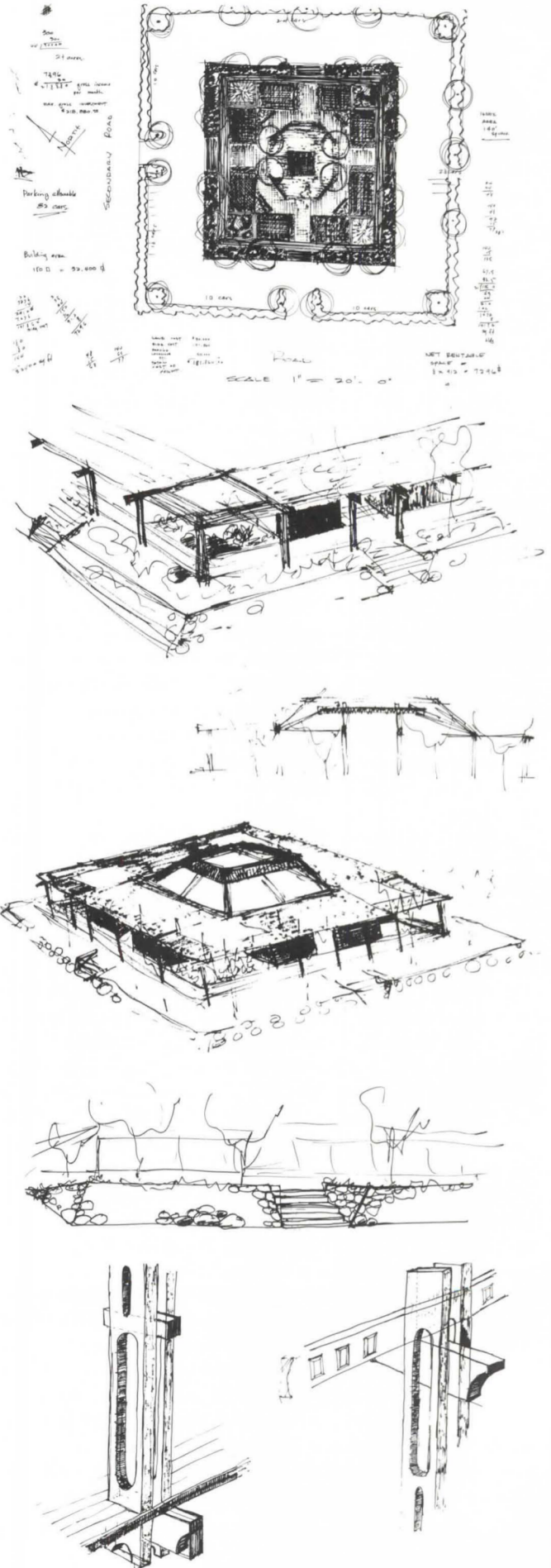
as I could, much faster than my hand would work, I tried to capture the essence of the building project, of the Center. I was almost certain that my total knowledge of it and how it was built wouldn't stay with me, and therefore I had to get symbols down on paper that would give me a key back in later. This was done in about an hour—the total process—and the project was completed.

“While I felt I could certainly go on and do a great deal more work on the center, I instead had a lot of fun designing. I designed a little meditation house, for example, in the woods—in my head. I could see it just as completely as I could see the center. I designed a couple of mountain cabins, and I designed a residence that was larger than the cabins. I played with a piece of sculpture for a mailbox. This was all pure mental projection. I felt I had done my work for the day; in fact, the way I normally would work I had done something like four or five days' work of really good production in a matter of that hour-and-a-half or so. I spent the rest of the day enjoying and looking at the other people's mental wheels turning. They were sitting there deep in thought, working through very complex problems—one on light patterns and photons, and one on other things, just as complex, having to do with the neurological patterns of the human body.

“The psychedelic materials seem to be ‘facilitators,’ or perhaps ‘focusers.’ I think that what this experiment showed is that it's possible to use the materials to focus on anything, or to facilitate focusing on anything, that one may choose to do. So they could be used for designing, as I did, for scientific thinking, as others did, for psychotherapy, for explorations into telepathy perhaps—I don't know what the potentials are. I learned from being with the Institute twice that the setting is the vital part of the experiment with psychedelic materials. They open the unconscious completely, although it can still be tapped directly into a focus; but unless there *is* a focus, and unless there is a protective atmosphere, I think there is a great danger in having an experience that would be wide open to I don't know what: Some of the horrors of the unconscious, the losing of all structures that one functions with and not being able to replace them, or to replace them in a way that is antithetical to the society in which we live. I see a great danger in the misuse or the playing around with the psychedelic materials, but I'm tremendously enthusiastic about their potential. I want to say: All architects ought to have this experience. Maybe everybody ought to have this experience. But it would be sheer insanity to have mass distribution of the drugs and say to everybody, here, let's see what can be done.

“Conjecturing about how the psychedelic experience enhanced my awareness and what it can do for the future: The project I designed isn't particularly unusual in architecture. Essentially, I had a problem to work out that needed a comfortable, warm architecture; it needed to have a feeling of culture, a feeling of artistry that wouldn't, as I see it, dominate so strongly that it would essentially destroy the integration of other people's arts into it. So, in the sense of using the psychedelic session for the creation of something totally new or even very different—that is something I wasn't involved in trying to do. What I was amazed by was the facility with which problem-solving was

Sketches by architect Eric Clough of art center designed under the influence of mescaline (see adjoining text).



enhanced. Until the time of the session, it had been a fairly difficult problem; I hadn't been able to solve it in a way that I was happy with. The solution came so clearly and so completely and with no problems to readjust, that I think, for myself, the value was in that ability to problem-solve in such a complete, thorough, and rapid way. This quality has stayed with me. It was five months ago now. I am not functioning every day as I did on that day, but I've had the experience of sitting down in the morning and designing six houses in three hours—in rough, very crude sketch form. I have done a little bit of very free thinking and very free sketching on new forms and new shapes—things I hadn't attempted before—and I'm pleased with these too.

“While people have said their experience doesn't stay with them, I think that somehow I learned something from it. I learned that whatever I was able to do that day was not because of the drug, but because the drug allowed me to function in a way that I was capable all along of functioning, without the usual frictions we encounter.

“Perhaps the next step is to try and work out totally new concepts. Perhaps a whole new view of architecture could be developed. I'd like to see someone like the Institute put a group of people together in a problem-solving session where they were all working on the same project, for example. I believe that the psychedelics are a tool—like a key to open doors so that we can look at old things in new and open ways. This is what we are capable of all the time but we don't usually recognize the fact that we are.”

#### THE WIDER IMPLICATIONS OF LSD

The social and cultural implications of the psychedelic drugs have been widely commented upon. It is easy to speculate that 20th-Century Man, living in an age of scientific revolution that has overthrown in the span of a few decades the social and moral assumptions of several centuries—an age where theologians themselves are forced into anguished debates as to the very existence of God, and where the new technology is rapidly dehumanizing man—in such a context, the appeal of drugs that promise man a supposed ability to transcend the routine sense of self and environment are obvious. Whether these more mystical claims to self-discovery have any legitimate scientific base remains the job of steady, sober scientific study in the years ahead.

In terms of the limited aims of this article, the psychedelic drugs are of interest to the profession to the extent that they may be shown to facilitate creativity and problem-solving. The difficulty is that the nature of creativity itself, of talent, even of genius, although under scientific investigation for decades, still contains areas of mystery and speculation. Whether pharmacology can bring new weapons to bear in the war that psychologists and psychiatrists have been waging for so long is the interesting issue.

When one considers the enormous complexity of the brain as the ultimate instrument that classifies and interprets all the sense data the individual is exposed to, the problem becomes apparent. The brain receives one billion signals *per second*—many more than normally reach consciousness. There are between

ten and thirteen billion brain cells, and each one is connected to 25,000 other cells. As yet, researchers have little knowledge of the chemical processes that occur among the cells. One of the great mysteries of the psychedelic drugs is whether or not anyone will be able to demonstrate that what an individual normally sees and experiences is more “real” than what is experienced with the aid of the drugs. They are repeatedly described as chemical agents that can somehow *open* the mind, allowing the free flow of sense data directly into consciousness, unimpeded by the intellectualizing, the categorizing according to preconceptions the individual normally resorts to. And yet this massive influx of sense data is experienced in a fully conscious state. Interestingly, from the descriptions of many who have taken the drug, the psychedelic experience seems to correspond to the world as it has been described by physicists—a world composed of minute, moving, bobbing particles of energy called electrons; everything is said to move and pulsate.

Another interesting aspect of the psychedelics is what several research psychologists have termed the similarity between the effects created by these chemicals and the sort of consciousness identified with creativity: The ability to become detached from everyday experience and become totally absorbed by deeper levels of awareness, coupled with the ability to abandon this detachment and return to normal levels of consciousness. A rather far-removed speculation in this respect that has been forwarded by some commentators is the fascinating possibility that in future years the psychedelic drugs may make accessible to the average man levels of consciousness and perception previously restricted only to the artist.

The consensus among the architects P/A interviewed, several of whom we have quoted in these pages, seems to be that LSD, when administered under carefully controlled conditions, does enhance creativity to the extent that it vastly speeds up problem-solving, aids in visualizing three-dimensionally, and generally heightens perceptivity. The drug apparently cannot give an architect more talent than nature originally endowed him with, but it can make it more accessible. In a sense, Henrik Bull summed it up when he commented, “My experience was that I became a better Henrik Bull, not Gaudí or Wright.”