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The Pacific Coast, not counting Canada, what with indentations and all, runs along northwest and southwest more than two thousand miles. In several places along this coast are held from time to time music festivals, each indicating by the name it bears whereabouts on the Pacific Coast it happens. The most recent of these festivals, "inaugurated" in 1953 at Santa Barbara, California, preempted the entire Pacific Coast for its location and calls itself the Pacific Coast Music Festival. During six "fortuitous evenings," to quote the History of the Festival, in the summer of 1953, the Paganini Quartet played Beethoven. The 1954 season included a chamber orchestra, two conductors, four soloists, and an Institute, meaning an importation of speakers, borrowed from the Columbia University Bi-Centennial.

This season the Festival invited Leopold Stokowski to serve as Music Director and Conductor. Olin Downes, before his death, and NBC were induced from their far perspectives to salute the Festival. The orchestral concerts were given in the Sunken Gardens of the Santa Barbara County Court House. There were in addition chamber music programs by the Paganini Quartet and the Musart Quartet, and a series of luncheons with lectures and separate music appreciation talks directed at the programs. In the name of my readers I requested tickets to the four orchestral programs in two successive Saturdays and Sundays. These programs listed certain items which I felt that, in Stokowski's handling of them, we should digest. Among these were the Concerto No. 5 for Strings and Solo Piano by Alan Hovhaness; Hymn and Fuguing Tune No. 10, with oboe, written by Henry Cowell especially for the occasion; a Symphony for Strings by William Schuman which turned out to be instead Schoenberg's Transfigured Night; groups of XVII century English and XVIII century American compositions; Milhaud's Concert pour Batterie and Petit Orchestre; Charles Ives's orchestral essay The Unanswered Question; Music for Strings, Percussion, and Celesta by Bartok; the Stravinsky Mass; and Serenade to Music by Ralph Vaughan Williams. Some of this music I knew, some I did not.

The Southern California Music Critics Circle, meeting for luncheon at the earlier Ojai Festival, had invited itself to be similarly entertained at Santa Barbara. The invitation was accepted and cordially carried through at El Mirasol Hotel, with the addition of an entertaining lecture by Dr. James G. Miller, chief of the Mental Health Institute at the University of Michigan, on The Art of Communication. Dr. Miller dispensed witty chat about recent experiments now in train at various institutions concerning what happens when human beings try to communicate with one another by speech. Only at the end, when he got around to communication by music, did he fumble the ball, mentioning for example compositions by Heidegger, a German philosopher, whom he apparently mistook for Honegger, a Swiss composer. Dr. Miller reached the conclusion that music communicates feeling, a proper affect, to borrow the psychological term, of any art. He seemed unaware that music also communicates in other ways, notably by content and meaning. He was preparing his audience to hear Stokowski and was perhaps being cautious.

Between the luncheon and the first concert three of us traveling together found at the Santa Barbara Museum an exhibition of paintings by Paul Klee and a display of Oriental instruments. I am not a Klee man, but the verve of these singing impromptus put me in fine humor for the coming event. This cheerful mood was made raucous during the stroll back to the concert, when a recital of the Symphonic Carillon out of one of the Court Tower began belling at us from all directions. The 100 bell Maas-Rowe Symphonic impinges and swells upon the ear with no precise beginning or attack and being amplified so that it "can be heard over most of the city of Santa Barbara," to quote again from the program notes, it rebounds from the nearby buildings like the whining of a mosquito in a bedroom. Under this ethereal bombardment we entered through a vaulted passage into the Sunken Gardens of the Court House.

The Gardens are on two levels, the central part a sunken lawn, at one end of which, on an elevated terrace in front of a broad wing of the Court House the orchestra was seated under a suspended brown canvas. Our seats were towards the front of the sunken area.
The cover by John Follis is from a photograph by Frank Chow of wood elements from the work of Jan de Swart.

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A look at the newest of the new steel home

Steel is proving it can serve the family in a functional, liveable way. In reporting the findings of architects and builders who have pioneered the use of steel-for-homes, it is difficult to avoid superlatives. The structural advantages of steel framework begin on the drawing board, where they allow greater flexibility of design. Replacing bulky timbers, lightweight steel beams can span the width of a house without interior support. Thus relieved of their traditional load-bearing role, "walls" can become freestanding cabinets or even movable partitions. With fewer supporting members, important material savings can be realized...read how steel helped designer Craig Ellwood economize. Furthermore, steel framework is fast and easy to erect: a welding team makes short work of the entire job.

CASE STUDY HOUSE #17
Open for inspection, November through December.
Address: 9554 Hidden Valley Rd., Beverly Hills, California.

Steel's contribution to good design is seen in this series of construction photos. A modular steel frame designed to withstand all forces forms the structural system of this Beverly Hills home. The designer, Craig Ellwood, selected steel for strength, permanence of form, its fine line, and minimum maintenance. The steel system reduced the amount of lumber needed, both in size and quantity: wood beams would need to be four times the size of the steel beams used...and more than three times as heavy.

PUT YOUR NAME ON THE LIST to receive free technical information on the use of steel in residential design and building. Write Architect and Engineer Service, Columbia-Geneva Steel Division, 120 Montgomery Street, San Francisco 6, California.
Steel figured prominently in other phases of construction: Children's beds (see drawing) are cantilevered from the walls with 2½" steel channels. ¾" steel sheet was used for the wall and other parts of a built-in barbecue (masonry wall construction usually requires 8" thickness). All materials for this project were selected by the designer on a "Merit Specified" basis.

Designed by Craig Ellwood
Consulting Engineers—
Mackintosh and Mackintosh
General Contractors—
David E. Harper

As the basic element of the architecture, all steel columns are exposed—giving a consistency to the design expression. 6" terra cotta clay blocks contrast nicely with black-painted columns. Columbia-Geneva Steel Division, United States Steel Corporation, supplied steel for the project through Drake Steel Supply Co., Los Angeles. Fabrication by Raymond Welding and Equipment Company.
ahead of the roped enclosures designated as boxes. As we sat I became aware of a wild orchestral furor in our immediate neighborhood, of which I could discern no cause. On the platform the musicians were tuning, but the instrumental screeching came from behind a group of high oleander bushes. What with this sourceless irritation and the synthetic carillon blasting overhead I grew disturbed, in the way Dr. Miller had mentioned as the normal reaction of children to unmeaning dissonance. My skin resistance, exactly as he had described it, became acute. Investigating through and around the bushes bordering the musicians' terrace, I discovered a set of amplifiers, evidently attached to microphones among the instruments, which some well-intentioned person had turned on in advance of the program and forgotten to turn off. Finally quiet arrived, and from a large entrance of the building directly behind the orchestra, down a lane through the centre of the musicians, Mr. Stokowski descended to the podium.

Among orchestral conductors Leopold Stokowski was my first love. During the eight years, roughly 1928 to 1935, when I was first hearing orchestral music, Stokowski was the equal of any conductor anywhere. But Toscanini kept boring in, and somehow after that Stokowski gave up.

Stokowski's early Bach transcriptions wakened me, as they awakened millions, to the Toccata and Fugue in D minor, the Passacaglia and Fugue, and some of the chorale preludes. Always before that Boch on the organ had sounded to me block and white. Now Stokowski's prismatic registrations liberated the music in baroque color. It must have been around 1935 when I began unexpectedly to resist the same enticements which before had held me spellbound. My dawning critical method caused me to check very closely what was happening to the Stokowski performance. Instead of maturing, it was coming to pieces. The big effect was being blown up out of shape, Baroque into Mae West, in tones that swelled and diminished, using like so-called popular songsters arbitrary crescendo and diminuendo as a rhetoric, dwelling on emphases that emphasized nothing, soulful fodings that merely hung on perplexed. If he continues in this mannerism, and he has held to it for twenty years, I am sure Mr. Stokowski's final breath will be drawn a halfmeasure too long.

I am not sure whether this searching always for the imposed stylistic mannerism as a barrier to the simply ordered flowing of the music refracts inward cynicism, contempt for the audience in the belief that it will accept from a famous anything, any badness, however bad; or whether a conductor who has so gone to pieces should be pitied. Stokowski keeps getting out of music and coming back, unable to accept retirement or leave his audience alone. Once in a while a new composition will draw him out, stirring the brain tissues, blowing up old genius. I remember the program he conducted with the NBC Symphony that began with a transcribed Italian orchestra—most dolefully sweet!—and then an Unfinished Symphony formless as a sack of sugar, and finally the first playing of Schoenberg's Piano Concerto, Steuermann at the keyboard, clear, cool, shapely, hard, well driven. What can anybody say or do about this musician become travesty, this travesty still able one believes to resume the musician?

Not having heard him at work for some time but of course having read about him—he inhabits the headlines with whatever or whomsoever for better or worse—I was curious. I knew the musicians who would be playing for him, some of best in Los Angeles, players who are able to read at sight with elegance nearly any music. Given that orchestra and a few rehearsals the old Stokie could have had us out of our seats.

I had forgotten the orthophonic Stokowski, the self-confirmed electronic experimentalist. To quote once more from the program: "Dr. Stokowski's knowledge of acoustics is unequalled among musicians and is highly respected by sound engineers." That ain't the way I heer'd it, but that's the way it reads. The first blast of the overture of Georg Friedrich Handel's Concerto Grosso in D minor, opus 6, no 10, hit us out of the loudspeakers like the opening of a barrage. That sound didn't come from the musicians; it was in every way, except the grotesque shape and duration imposed on it by the conductors, unlike any tone I have ever heard from instruments. I am sure the grass blanched. I had feared that the shuddering echoes of the Symphonic Carillon would leave our ears incapable of hearing
properly registered orchestral sound. No fear! The orthophonic broadcast exceeded the carillon. The high strings shrieked; the basses without definition boomed and thudded. Recalling what I sat through in the name of Handel, Bach and Mozart makes my head ache. It was like being confined before a mistuned radio, unable to reach the dials. But I had made up my mind to survive until I heard Henry Cowell’s Hymn and Fuguing Tune. Twisting and huddling I stayed there, my thoughts screaming.

I've said enough to let you know what happened to Handel, Bach, and Mozart. The miracle of Stokowski is his ability to make good musicians reproduce music as he hears it. He gets it out of them sometimes by scarcely a movement of the hand. Years ago I heard him conduct a rehearsal orchestra in Los Angeles. After the serious business of the morning—only a few dozen of us who had been tipped off made up the audience—the musicians started dodging for the backstage. Stokowski called them back and invited them to begin Tchaikovsky’s Fifth. Helpless as so many Trilbys they returned to their seats and began playing, against their better instincts, the swooning and extreme phrases, exactly as he led. I saw then as never before the authority of a great conductor and the responsibility he bears.

When Handel, Bach, and Mozart had been hanged and gutted, beheaded and torn apart by horses, like some unhappy subversive in the good old days when regal authority was becoming absolute, intermission supervened. I staggered muttering to a farther corner of the Court House gardens, beyond the sunken area, and settled myself where I might hear Cowell free of that blast.

There was an old man of Manila,
Whose stories each began, “This’ll kill ya!”
When his friends were all dead,
He regretfully said:
“I shall seek other friends in Manila.”

First there was the Concerto no. 5 for strings and piano by Hovhaness. A girl with attractive shoulders took over the piano, her back to the audience, and started tickling the keyboard gently at its extremes, in the motion of an oil pump, first the right hand, then the left hand, anon breaking the undulation to reach her left hand inside the piano, get a quick grip on a cotton-headed mallet and beat the strings with it. The orchestral accompaniment droned up and down also, and I decided the music must be visual; there was assuredly nothing to hear. (I had not—and could not have—anticipated the Zarabanda Lejana by Rodrigo; that was not even visual). I don’t know whether an expert, an outraged member of the concert committee, or the conductor had turned down the loudspeakers, or whether I had fled far enough to escape the impact; but the sound, though no less orthophonic and unlike that of an orchestra, was now definitely less.

Then came the Hymn and Fuguing Tune, Bert Gassman the excellent oboe soloist, which turned out to be for whatever that was worth the most successful piece of the afternoon. At a proper tempo it would have given us Cowell in one of his non-intransigent moods of mild Celtic cheerfulness. But Stokowski dragged, and the piece was rhythmically helpless. The final work, not William Schuman’s symphony but Schoenberg’s Transfigured Night, one of the most beautiful and interminable of tone poems, lasted until nearly dark. Applause sputtered and was about to go out, when a few interested parties brought it up with a fresh salvo and some cries. It was not one of those occasions when you hear everybody congratulating everybody else.

I didn’t go back the next day; I couldn’t. I gave my tickets to an innocent friend who lives near Santa Barbara and returned to Los Angeles, where I visited my next door neighbor to hear and as far as possible see the television performance of Thornton Wilder’s Skin Of Our Teeth. At a proper tempo it would have given us Cowell in one of his non-intransigent moods of mild Celtic cheerfulness. But Stokowski dragged, and the piece was rhythmically helpless. The final work, not William Schuman’s symphony but Schoenberg’s Transfigured Night, one of the most beautiful and interminable of tone poems, lasted until nearly dark. Applause sputtered and was about to go out, when a few interested parties brought it up with a fresh salvo and some cries. It was not one of those occasions when you hear everybody congratulating everybody else.

Why did I go back to Santa Barbara the next week? I asked myself that. I had been offended, I had been furious. Nevertheless I was interested in the music, and I hoped that some of the worse faults might have been put right.

The weekend, besides, was too attractive to resist, staying over-
night with the friend who lives at the water's edge against my favorite strip of rocky beach, the Rincon; passing happily exhausting hours seeking water-shaped rocks suitable for my terraces, flat massive step boulders. This time I wished a sculpture for the corner of my upper garden, to equate at a farther distance to the pool and pond. At the Rincon you need only look about with a discerning eye and from the fertility of rocks shapes will appear. I selected a choice of six and after conference with my wife made off with the best. Swimming here one time I found myself seawards of a sea lion and my wife on the deserted beach wondering where the other fellow in the water came from.

Anyhow, to work. We reached the periphery of Santa Barbara late enough to avoid all but the last hill-echoing jangles of the synthetic carillon. We arrived outside the enclosed Court House gardens soon enough to ascertain that microphones had been turned off while the musicians tuned. As the concert proceeded we observed no men in shirtsleeves strolling in and out the building entrance behind the orchestra, another improvement from the first occasion. I don't know whether they had thought themselves unsent whether they strolled there in a feeling of provincial self-importance. However, they'd been shooed off.

Ronald Scofield, senior critic of the Santa Barbara News-Press, called this third program "one of the saddest examples of good musical intentions gone wrong that we have experienced here in some time... a tragic impression of fiasco."

"Wherever the blame lies for details," he painfully continued, "the responsibility is on the musical director, Leopold Stokowski." I wondered he should have waited until the third program to let fly his wrath. Where was his courage to stand up in protest when Stokowski was grilling Handel like a fish!

Indeed, the third concert seemed to me an improvement over the first. Mr. Scofield remarks: "It was hard to tell where Lawes left off and Locke began." It surely was, but I don't agree with Mr. Scofield that the music was uninteresting because it was "antiquarian". The pieces were abominably performed, beginning each at the same tempo with undistinguishably the same mellow but expressionless tone. William Lawes' Six Part Fantasy and Air, more aristocratic than the succeeding suite of dances by Locke, was reduced to a similar undifferentiated succession of closed phrases and non-sequiturs. Purcell simply vanished. The John Humphries reached compressionless tone. William Lawes' Six Part Fantasy and Air, more aristocratic than the succeeding suite of dances by Locke, was reduced to a similar undifferentiated succession of closed phrases and non-sequiturs. Purcell simply vanished. The John Humphries reached compressionless tone. Purcell simply vanished. The John Humphries reached compressionless tone. Will iam Lowes' Six Part Fantasy and Air, more aristocratic than the preceding Sunday, fuzzed the faint edges of the strings, blurring all outlines—if there were outlines, which I am not sure of. The basses still tonelessly thudded.

With the same concertmaster, Israel Baker, and several of the same players, Bernard Herrmann this summer directed and broadcast, at the Los Angeles County Museum, four one-hour programs from the time of Humphries. The one and a half programs I heard were crisp as a fresh salad. Though I might boggle at his details, Herrmann demonstrated, as we have learned before, that even slight music of a dull period, if played at a lively measure, need not be thought antiquarian. It may not be our fashion, but it was alive for the listener at the time when it was written. Play the music alive and the listening interest will revive. Consider what is being done nowadays by the Italians with music no whit more alive than Lawes or Humphries. Both would be more lively, if filled out and justified with proper embellishments.

Mr. Scofield also reported the early American music, sung by a chorus draped along the Court House terrace and a flight of steps, to be of slight interest. I have a fondness for these little cantatas, of which CBS gave a generous supply during a series of pre-Philharmonic Symphony broadcasts several years ago. Billings' Lament for Boston and the little chorales by Supply Belcher and Kimball have a place as genuine as Paul Revere's pewter among the native American arts. They are not Handel, but they should be heard. Nor did they suffer as Handel did. For the first time the audience respond generously, enjoying the free sound of the voices, liberated from orthophonic amplification.

Then came and went the Zorobondo and the little chorales by Supply Belcher and Kimball have a place as genuine as Paul Revere's pewter among the native American arts. They are not Handel, but they should be heard. Nor did they suffer as Handel did. For the first time the audience respond generously, enjoying the free sound of the voices, liberated from orthophonic amplification.

Then came and went the Zorobondo Lament for Boston and the little chorales by Supply Belcher and Kimball have a place as genuine as Paul Revere's pewter among the native American arts. They are not Handel, but they should be heard. Nor did they suffer as Handel did. For the first time the audience respond generously, enjoying the free sound of the voices, liberated from orthophonic amplification.

Then came and went the Zorobondo Lament for Boston and the little chorales by Supply Belcher and Kimball have a place as genuine as Paul Revere's pewter among the native American arts. They are not Handel, but they should be heard. Nor did they suffer as Handel did. For the first time the audience respond generously, enjoying the free sound of the voices, liberated from orthophonic amplification.

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Orchestra from the great days, Tchaikovsky's Serenade, loudly applauded by the thankful audience after each movement. Parents forgot to chase children. Now bear in mind that the music, if moderately well played in a building with adequate acoustics, and if arranged in an effective program sequence, would have been objectionable. I could even settle, as a dull curiosity, for the Apocrypha has it Stokie then turned to the first violins and said: "That will teach them to watch the conductor."

Let me tell you about the audience. The core of it was a small body of people who know a good deal of music and want the very best. Among them were the concert committee, and the programs reflected, item by item, the sort of thing they wished. None of the music, if moderately well played in a building with adequate acoustics, and if arranged in an effective program sequence, would have been objectionable. I could even settle, as a dull curiosity, for the Tchaikovsky Serenade. They were a game lot.

The remainder of the audience consisted of good Santa Barbara citizens who, because of the Festival, were spending each afternoon for music as much as it would cost them to go to a movie, more than the cost of staying home to watch television. These people had taken pride in what their community was doing. They had come to the Sunken Gardens in whole families, all dressed up, bringing their children, pretty as pictures, as a compliment to what was going on here in Santa Barbara. Families were sitting on the grass, on spread blankets, little toddlers navigating unsteadily around, babies sprang out or in baby carriages, not hundreds but thousands.

What were they given for their enthusiasm? Good teaching music, badly performed, in the wrong setting, ample to young children only because it was the wrong music for the place. When they not have been heard otherwise, nothing they knew on an active the Tchaikovsky Serenade. They were a game lot, the children, chased after the toddlers, rocked to time, hung on until the end. They spoke for the love of Barbara in just the way the concert committee had for them. They were loyal. They were the public, Secretary-public for whom that Festival on that grand scale cancellation for the concert committee, having in mind its own interests, had forgotten them.

Only towards the end of the fourth concert, the Ives: Unanswered Question; Bartok: Music for Strings, and Celesta; Stravinsky: Mass; Sibelius—do you hear?—hysterical?—Berceuse; Vaughan Williams: Serenade of these novelties, or at most two, in a substantial, gram, would have been enough. I might have stay ace, color, some others of that inner core might have cared less than loyal might have stayed home. These were the few friends around them the thousands.

If, even, the modern music, if even the older novelties, chosen from music large enough to be heard properly.

A little car trouble made me late getting there. Milhaud and the Ives. Crouched in my seat I suffered from the worst reading of the Bartok I have encountered. I had had all the treatment from the rehearsals, that nothing could be made of the Tchaikovsky Serenade, it was the best performed of them on an heard of the concert, and I shuddered hearing it to think against impression it was making on that devoted audience. After program I was furious, after the second regretful, but with the sub-

(Continued on Page 33)
It is suggested that design will improve if its aims are clarified: that the products of industry will more adequately serve people's needs, and through beauty enrich their lives, if designers gain a better understanding of their role in civilization. What then are the aims of design and what chance have they of being fulfilled?

The aims of design are those of education itself.

Design should enlarge and enliven human intellectual and emotional experience; it should enable us to make more precise and more profound demands on our environment. And yet all this is but vain theory if design fails to become, at the same time, the undisputed raison d'être of both industry and commerce. For, just as the numerical vastness of modern society can, for the bulk of its needs, be served by no other form of design than that which may be mechanically reproduced in quantity, so must the manufacturer and his workers concentrate on design that earns them a living. We must face the fact that the commercial aspect of design is no less important than its humane aspect. Today, unlike an eighteenth century civilization supporting crafts in small workshops, the commercial life and the human life thrive together, or they do not thrive at all.

But, in addition to keeping the wheels of industry turning, what can we expect of design? As an element in man's education, design embodies the power to enhance or degrade human life. Readily comes to mind the comparison between two cities in any western country that we know. The one sprawls with haphazard suburban terraces and tenements meandering their way toward an approximate centre of smoke-blackened monoliths and sunless streets. The other is ordered and open, with houses and business buildings articulated in groups to allow free movement in wide streets and green parks. Man instinctively tries to escape from one city, while he is attracted to live in the other, and yet design is responsible for both.

In England we find that a best-selling pattern of wallpaper can affect 20,000 rooms and perhaps, interminably, the lives of 100,000 people for five years or more. Can we say what happens to those people if the design is ugly? Probably we should infer that their lives have been degraded, but if we asked them for comment most would look puzzled, stumped for an answer.

The majority of people are calmly unaware of the effect of design on their lives; the minority are actively, but partly impatiently, advocating improvements in the function and appearance of our environment. To some extent it will always be like this; there are fewer teachers than there are students in any school. But what is serious is the fact that most people in England, Europe and perhaps in America also, do not listen to the critical minority; do not realize that designers, as human beings, exist. This situation has two causes: on the one side people do not know what legitimately to expect from design, and on the other, manufacturers and designers do not sufficiently know what people want and are often ignorant of achievements elsewhere.

This simplification takes us to the core of the problem. Although design will improve if its aims are clarified, it will only do so if its origins are analysed and understood. The origins as well as the aims of design must be held in mind at once.

Take origins first. We do not live in an ideal state, therefore we must know what can legitimately be expected from our mass-producing industries before insisting that it be achieved. To begin with, the designer is not a free artist in the sense that the painter may be said to be free. He works on ideas in his studio, but they seldom materialize into design projects until the co-operation of one or more outside intelligences is enlisted. There is no need to stress here the concept of teamwork; only to recognize, first of all, the limitations it imposes on the development of the designer's ideas. Designing is largely done in committee and it is reasonable to assume that in terms of directness and vitality of impact the product which bears the handwriting of one man is preferable to that which bears the marks of many. And yet two heads are better than one; the product that develops under the guidance of two equally concerned but differently tuned intelligences—for example those of the designer and the chief engineer—gains by maturing more readily.

Much designing in Britain is done in committee, though little of it with the designer in the chair. The persons involved in a product's development are numerous: the manufacturer himself will be there when many vital stages are reached; his sales manager is called in, particularly at the beginning and the end of the process; while for technical research and production six or more representatives might be needed. When measured against its responsibilities, the size of a design committee seldom appears to be large. The committee's decisions can affect the livelihood of the Company's employees, its capital and its balance sheet, let alone the public that needs the product.

We are indeed at the core of the industry, if not of a civilization itself, when we consider design. We live by creating things that are suitable for sale to someone else, and the design committees in innumerable factories are the focal points of this activity. Their significance in our man-made scheme of things is evident; how then do they operate?

Such a question should not be sidetracked by stating that ideally the designer guides the team, as a chairman can guide his board toward a series of "right" decisions. It is rather the way in which the committee members communicate with each other that matters. Can the designer sufficiently appreciate the experience that the engineer brings to the table and comprehend his terminology? Can the engineer follow sympathetically as well as objectively the designer's views?

And can the manufacturer cultivate sufficient impartiality to contribute to their discussion in a way that keeps factors like time, cost and taste in perspective? As Professor J. Z. Young points out in his book Doubt and Certainty in Science, "Improvement in communication leads to increasing accuracy, directness and completeness of description." Elsewhere in the
book, speaking of the uncertainties that arise as scientists venture to talk in uncustomed ways, he asserts that the "extension of communication is often the prelude to entirely new discovery.

In these terms the creative element in design teamwork can be expressed. It is akin to the poet's act of creation: the way in which he co-ordinates his thoughts to become speech or writing. On the point of utterance his ideas face reality, accept the limitations of language, and so ensue new design ideas or works according to the effort made by each member of the team to communicate with the others. An original view introduced by one member disturbs the balance, becomes a fresh standpoint to be reached by his colleagues, each of whom is able to reject, modify or accept it according to his ability to communicate.

Now design in Britain is only partly carried on like this. It is true that the committee system is prevalent, but in the majority of cases the members have too little sympathetic comprehension with each other. When carrying out my recent survey of design in Britain, I discovered that specialization at all levels, from executive to operative, was the chief obstacle in the path of effective communication. Naturally this is not a serious problem in all firms. If we assume in this context that better communication leads to improved design, then it is significant that in cases where the manufacturer himself has high design standards the products of his factory tend to exploit and even surpass them. The force of his control can conquer opposition lower down the executive scale and mould the department's aims to suit his own, and although it may achieve the 'right' solution it can only do so by making a detour around the real problem.

While it is imperative that design should be the responsibility of top-level management, it must be recognized that such responsibility is ineffective unless delegated to all levels of the production and selling system. It is there that the dangers of specialization should be overcome for the design of the product will suffer unless all concerned in it appreciate each other's experience and recognize each other's aims.

We need to find the best practicable methods of providing each young recruit for industry with a broad appreciation of the aims and activities of his future colleagues. Instruction currently given in economics and psychology to students destined for the executive branches of industry, to some engineers and fewer designers, is only partly useful. The disciplines which they entail are as specialized as any course on stress calculation or electronics, and as limiting. When it comes to communicating with others to solve a common problem, the executive economist or the executive psychologist is just as inflexible in his outlook as the purely art-trained designer. A unifying knowledge must be introduced to equip all participants with common ground for discussion and a common aim.

Few would dispute that the paramount aims in any industry are larger sales and lower costs. The urge to make money is a social phenomenon to be accepted; it is the way it is made that must be questioned. Industry thrives by designing goods and producing them for sale at a profit. The goods themselves are called 'designs'; and perhaps this will help to clarify our thoughts in the search for common ground. At all stages in the commercial process people are concerned with designs, tending to affect them decisively at their inception and completion. The manufacturer, designer, research and technical engineers, production and sales managers act upon a design according to their individual, specialized knowledge. It is apparent that in the majority of cases they do not look upon it as something which is to become essentially part of someone else's life. If this tendency to regard a design simply as a specialized projection of their 'technical' experience could be balanced by the ability to view it as an entity destined to meet the needs and preferences of the purchaser, then common ground for appreciating each other's contribution would be achieved.

It may be thought that industrialists do this already. Indeed, how do companies survive at all if they disregard the demands of the market? However, the question I want to raise is distinct from market demands, as they are generally understood, and relates to people's needs and preferences. What sold last time can perhaps be used by the designer when he is formulating his initial ideas. It is not a forecast of market trends, but a hint to the man who is doing the original work and best given to him alone, for with all others, and chiefly the sales manager, it can become an impossible hindrance to the development of a new idea. And yet no designer or engineer can do useful work which others will purchase if he exists in a vacuum. He and his colleagues must have some correspondence with their public.

It is doubtful if an investigation among designers, to find out what they know of the needs and preferences of their public, would be able to report anything more significant than the fact that they are members of the public themselves. They have families, own houses, ride in cars, and associate themselves with their fellow men in a thousand different ways. But they only know a little about the manner in which even their friends live, and probably nothing about those people who rank as purchasers of the products they design. How pitifully inadequate are these unconscious attempts to feed market intelligence back to the designer! How can he satisfy people, let alone enhance their lives and widen their experience, when each product he designs is reproduced ten thousand times for placing in ten thousand different homes he has never seen?

The question is worth asking in spite of the impossibility of finding a neat answer. Only in rare instances where the client is willing to commission a special design for himself, can the designer know accurately what is expected of him. Before the factory system took its hold on industry, that is before men were grouped to produce a quantity of identical objects by dividing the designing, making and selling activities among themselves, there was full scope for a close give-and-take relationship between the designer-craftsman and his client. The one shared in the product, and the result of their liaison was produced. This led naturally to improvements according to the aims, or rather the design standards, held by maker and client.

Nowadays, with industry's tendency to increase production running parallel with a diminishing number of choices, the system would be more appropriate for closer contact between designer and public? Although physical contact is naturally out of the question, a great deal could be done to learn more about people's needs and preferences. In addition to promoting the cause of good modern design, greater thought could be given to widening the interest shown in public taste. This is no grand proposal for whitewashing the already numerous campaigns in industry for the levelling down of taste to serve a mass market.

How could this object be achieved? How could the research be carried out? In what way could its results best give a lead to the designer? Although the scope and complications of this proposal are beyond a short paper, some tentative suggestions can be made. To begin with, the central question to ask is "Why do you furnish your home in this way?" and not, with a sample product in either hand, "Which design do you prefer?" We need to know why people behave as they do, before asking them how they are likely to respond if a certain design came their way at a time when they needed it and had the money to pay for it. Incidentally, the reasons given by the designer of his product are likely to be limited to certain areas of the country, and perhaps to particular income groups. The technique used by the market research organizations of taking a sample would be a necessary limitation, but it must be admitted that to get worthwhile results over sufficiently large areas, this technique may not be adequate.

If we suppose that such a proposal were adopted, say by several universities working together, then what is the type of information needed? The designer would need to know how products made by his firm and competitors are used. He could be helped by such questions as these: Do more or less people attempt to organize their homes creatively, given the usual quantity of furnishings and equipment? Do they accept stock suites of bedroom or living room furniture as inviolable? Or, do they prefer a changed appearance than that of the last three or four years, and does this merely mean new wallpapers, paint and fabrics? Essential additions to this general picture could best be furnished by the anthropologist who could, with the aid of work-study and anthropometry, compile data on living habits, bringing in the degree of interest shown in such things as home decoration, American versus Japanese films, schools of modern art, and so on. As no one yet knows what a large sample of the population needs and prefers in its environment, the questionnaire for disinterested research of this type can only be tentatively sketched. But it is clear even from this short selection how much the designer and his colleagues need to learn.

The danger of placing too much reliance on statistics should not, of course, be overlooked. The important role taken by accountants in modern business fastens what seems to be undue significance to figures. Armed with noticeable increases in sales and with percentages, the public's opinion of certain ideas on design, the manufacturer can face his designer with what he believes to be an accurate statement of public taste. The designer must comply with the results of research. In doing so he may easily be persuaded to set aside his imagination with design tending to affect them decisively at their inception and completion. The manufacturer, designer, research and technical engineers, production and sales managers act upon a design according to their individual, specialized knowledge. It is apparent that in the majority of cases they do not look upon it as something which is to become essentially part of someone else's life. If this tendency to regard a design simply as a specialized projection of their 'technical' experience could be balanced by the ability

(Continued on Page 32)
These are TECHNIQUES which may be applied and related to architectural use. They have in common an exploratory approach: basic research on materials and tools.

In the use of each medium there is a flow and freedom natural to it, limited however by the character of the wood, concrete or machine. In the lenses I have found a way of overcoming this material limitation. The motion picture technique is the culmination of efforts to achieve release from the static. It abstracts the visual image in a series of metamorphoses and captures experiences beyond reality. Reality is one thing; abstraction is a million things.

The illustrations on concrete suggest the treatment of flat surfaces on concrete walls, either in relief or complete penetration, and of cubes wherein space is continuous and related to the mass.

The illustrations on wood show four and eight foot timbers that have been cut by machine. With this technique it is so easy to cut generously into the wood and reveal its inner structure that one can indulge in a rich diversity of design. Yet the forms gain in simplicity and cleanliness by the limitations of the tool. Decoratively the technique can be applied to columns, panels, room dividers and outdoor structures without making aesthetic demands in its own right. For structural use the wood is strengthened by the counterbalancing of the grain.

The abundance of new materials constantly being created challenges us to a study of their possibilities and limitations. What are their characteristics? How can they be related to each other and to the familiar materials already in use? Only pure research can discover the answers to these basic questions and organize the resulting body of information into a useful vocabulary for modern expression.

I feel that this technique does not result in little works of art which stand self-importantly and with a certain detachment in architectural space, but rather that they constitute a light and stimulating accompaniment to the architectural theme.

It is important too that the technique is so direct and so simple that it would not burden the most modest budget, while the effect can be sumptuous and intricate like that of a precious carving.
CONCRETE STUDIES

Iillustrations show the beginning of a project on reinforced concrete. My first endeavor was to make concrete surfaces more interesting without interfering with the present technique of pouring in forms; to obtain a decorative surface that is part and parcel of the structural wall instead of a finish applied effect.

My aim was to pierce garden walls completely so that plants can grow in the wall, water can pour in countless little pools, or light can emanate from the spaces. Stained glass may be used to create various color and lighting effects.

The subject of study was the application and confinement of color in the cavities, as shown in the upper right.

The pictures show structures of cast reinforced concrete completely perforated with a continuous voided space. This is an economically feasible way of casting smooth-surfaced play structures.
THE FILM

This is an object in motion from the experimental film "Metamorphoses." Countless transitions take place between the phases here shown. This film is the result of a new technique in making motion pictures, a technique with the unlimited possibilities of the animated cartoon, but without its prohibitive cost and time factors. This answers a very definite need in the field of product advertising and opens up an unexplored realm of visual experience to the creative artist. The effect of almost organic transformation from realism to abstraction, which is the essence of this process, constitutes a stimulating new medium in art education.

The metamorphosis is not alone in the forms but also in the colors. One portion of the image may be refracted into the path of another, so that if one part is blue and the other red, the camera records purple even though there was no purple. These effects can be controlled at will and made to vary in endless transpositions. The lens may also be given any desired characteristics of line or composition, so that everything seen through it, no matter how confused and unbeautiful, is reorganized and compelled into this order. By the continuous displacement of the line of sight, the constant change of the size and shape of the field of vision, and the continual shifting of the focal length, so many variables are brought into play that there is no repetition throughout the entire sequence.

I find a similarity in my experience of seeing with my mind and seeing through my lenses. The image is released into continuous motion through the lens just as the image which the eye records on the mind undergoes countless fleeting transformations, revealing a new relationship and a new significance in each aspect.
experimental house in plastics

a continuing development by the

monsanto chemical company
This preliminary design for an experimental house has been developed for the Monsanto Chemical Company in a broad program to develop sound uses of plastics for the construction industry. The basis of the design is a molded module, 8 by 16 feet, which is bent to form ceiling, wall and floor. In the simplest plan, eight molded modules are cantilevered in pairs from a 16-foot-square central utility core to form four 16-foot-square rooms. The utility core itself contains baths, kitchen, laundry and heating facilities.

The project proceeds on the assumption that the molded module can achieve basic engineering purposes in a way possible only with plastics. Several combinations of the design components, including twin cores, can make possible a variety of floor plans. Rooms can easily and economically be added or removed to suit the changing space needs of the family. Also, it is obvious that the minimum of site excavation is required to accommodate the utility core, the elevation of which can be easily adapted to take advantage of terrain conditions. Lightweight movable partitions and curtain walls combining a variety of core and face materials in a sandwich construction will permit flexibility and indoor-outdoor living arrangement.

Decorative and durable laminates combining plastics with paper, wood or cloth for counter tops, walls and tables will be developed. Shatterproof and lightweight panels of glass-reinforced plastics in a variety of colors and degrees of translucency for transmission and con-
1. Combined office and parking block

An additional eight floors of office space are to be erected on four recently completed parking floors. The area of the site is 108' to Little Collins Street with a depth of 162', giving a total of 14,150 sq. ft. net per floor, providing much needed office space in this central location of Melbourne.

The main feature of the building, namely, the combination of office and parking floors, will provide an ideal arrangement for future tenants. Fast automatic lifts will connect the parking floors with all office floors.

Three of the parking floors will have space available for outside customers, and one level will be preserved for the tenants of the building. The unique arrangement arises out of the fact that the building is surrounded by sloping streets, from which easy access is had to all parking levels directly off the street.

Being practically an island site, excellent natural light and ventilation is possible throughout the building, the orientations of the full height glass wall on three sides are towards the sun.

(Continued on Page 34)
2. Amenities and workshop building for employees

The principal employees' access is through an entrance marked by cantilever canopy into an open way through the building. A main stair leads to the upper level with the mechanical equipment room underneath it. The remainder of the ground floor is given over to workshop space, with steel roller shutters opening to the south, and continuous strip windows on the north. The main stair leads to a center corridor which is closed off by the swinging double entrance doors, which would be the actual locking point of the building. Two identical locker rooms each open both north and south from the center corridor with access through the toilet room to the showers. At the end of the corridor double doors lead into the main dining-room to accommodate 100, which is glazed on both north and south, with a continuous "Steellock" sunshade on the north side protecting the glass from sun penetration.

The structure is to be a reinforced concrete slab floor and roof, supported by two rows of columns at 24 ft. centers in the middle of the building, with 7 ft. cantilevers north and south. Two end bays have reduced spans of 20 ft. to offset the lack of continuity with 5 ft. cantilevers towards the east and west.

The exterior walls will be "Chromotex" face brick, cavity walls, backed with lightweight interior skin, also face brick in the case of the open access way and possibly the corridor and stairway.

The windows are designed in identical 12 ft. width modules, which fix to steel 4"x2" vertical stiffeners with cover-plates.

Opening sashes are to be hopper type, opening down and out, and fixed sections adjoining, all in zinc-sprayed steel.

The mechanical equipment is housed in the room adjacent to main stair, and has its main air intake grille opening on to the Southern end of the open access way.

A vertical duct provides for supply to the continuous duct suspended off the ceiling of the upper floor center corridor from which grilles would be set in either directions to the north and south.
In planning this project it was essential to provide for independent operation of the Science Museum and the Art Museum which have different administrations and different hours. At the same time, both had to share efficiently the facilities of the building with each other as well as with the civic groups, related to the arts, who also will occupy the building.

It was found that both museums required the same kind of architectural space, a free space with a completely flexible panel system, lighting system and control of daylight system. A concrete construction with a panel system in 40' bays was used. All exterior forms were steel, left in place and painted. All lighting in the gallery spaces is either from the cases in the Science Museum or from lighting the walls in the Art Museum. To vary the pace of the shows to be set up, exterior louvres are used to exclude daylight in the exhibitions and to admit as much as possible of sunlight and view in the areas designed to combat museum fatigue.
PROJECT FOR A MUSEUM OF THE ARTS AND SCIENCES

DESIGNED BY JOHN L. FIELD

PHOTOGRAPHS BY EVERETT KROEBER
HOUSE BY ISAMU NOGUCHI

Kazumi Adachi, architect

A LIVING AND WORKING ENVIRONMENT AT THE SEA

This project is being developed in Carmel, California, for the artist, Robert Rheem.
I think a lot of what we do as artists revolves around the furnishing of ideal situations that never come to be. We are forever building this imaginary abode for which everything we do is finally destined. Some day we will live as we really want to live, to really live as we know we should, no longer rushed.

Alas that the time and the space for introspection keeps receding ever faster! I gathered from the letters written by these two young painters that they wanted a home of poetic sensibility and had a regard for the kind of living which most of us keep putting off.

What I have attempted is an arrangement of moods, a wide variety of sensory experiences to be derived in living space. It is not architecture in any conventional sense; it is rather the coordinating of space and form indoors and out into an integral and self-sufficient unit. A world apart.

There are two bedrooms that appear suspended over an area of round white rocks imbedded in cement which is also the floor of the bathing area between the bedrooms, the bath itself sunken and appearing connected to a water garden outside through a glass wall. There are no beds or other furniture. The living room, on the other hand, may be said to be entirely filled with one enormous piece of furniture: a platform with holes for sitting.

The guest house is one large veranda with tatami suitable for meditation or enjoyment of the wonderful view. This is a duckpond with reeds and beyond it a sandbar and the spray of waves. The form of the structure, especially of the roofs, came about through the specification of large redwood timber from a dismantled bridge.—Isamu Noguchi
The problem was to design two houses, one for a young couple with three small children and another for the parents.

The young couple’s house comprises three bedrooms, two baths, living room, kitchen and service area, also car port.

The parents’ house is to be the same but with two bedrooms and one bath.

Considering the location, prevailing winds, sun, etc., in order to obtain the best results concerning cross ventilation and exposures the architect arrived at the final bi-nuclear and split-level plan. This made the most of the dimension of the lot. With this solution at least two exposures were obtained for the bedrooms and three for the living rooms. It also permitted the use of a terrace-garden one half level higher from the upper living room.

Structure—One-foot supporting walls of common brick were used. The partitions are of the same material which has been left exposed, treated only with a coat of transparent waterproofing. The slabs are of reinforced concrete which in some places has been chopped with an ax giving a very nice finish. The woodwork is varnished cedar, natural color.

The floors of the house are of six-inch light gray tiles instead of the usual ten inches, thus giving a greater sense of span. The carport and

(Continued on Page 34)
DETAILS OF THE STAIRS WHICH SERVE AS A COMMUNICATING CORE BETWEEN THE TWO UNITS.
MOLDED FORMS AND A NEW PATENTED JOINT FOR WOOD FURNITURE BY ANGELO MANGIAROTTI AND BRUNO MORASSUTTI, ARCHITECTS
The shape and structure of this new furniture have been suggested by the strength and lightness of the vertical supports of curved plywood. The tables, stools, benches, as well as a small sofa and teacart not shown, are all of natural Finnish birch and constructed in the same manner: the supporting vertical members are simply fastened to a frame of curved bent plywood. The tops are varied and include upholstered foam rubber, glass, opaline, laminated plastic, marble, stone slab, ceramic tile. While extremely strong, the pieces can be easily disassembled. Because the wood supporting elements are reduced to a minimum they are not heavy. This type of furniture is particularly suited to mass production.

By using the horizontal joining of the majority of the elements which compose the various pieces shown, the architects have developed a new system, the essential characteristics of which are: similar supporting members for all types of furniture, elimination of all metal parts such as screws, braces, hinges, pivots, etc., to join parts; maximum flexibility of design, maximum simplicity and economy of fabrication at minimum cost; and a unique principle of construction at the base of this system, the central idea of which is a patented joint between the carrying and supporting members. This very special joint, which is also the means by which the horizontal elements are fitted together consists of a special method of insertion which takes advantage of two distinct principles: the dovetail and the wedge. By a simple pressure of the hand the various elements can be joined and a fitting without play is obtained.
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EDUCATION FOR DESIGN—MICHAEL FARR
(Continued from Page 15)

year by year, recording not only the types of change, but also the pace of change. The manufacturer would then be able to direct the efforts of his design team toward a creative revaluation of the product in terms of a revealed social pattern; not toward the supply of a series of artistic overcoats for a ready-made solution wound on percentages.

Is all this preliminary activity necessary to design? After study of trade press advertisements, shop windows and tours round industrial fairs few people, in Europe at any rate, would deny that something must be done. While no country is prepared to admit that the shoddy and meretricious designs it produces reflect a shoddy and meretricious civilization, few movements are in being to prove their innocence. The most notable instance today is the Council of Industrial Design in Britain, set up by the government ten years ago to promote by all practicable means the improvement of design in the products of British industry. Its successes over the years can be traced to unceasing activity at all levels of industry, the distributive trade, purchasing public and a teacher market, through the media of conferences, national and local exhibitions, publications and teen-age education. In their own ways the Scandinavian design societies, the Werkbund, Rat für Formgebung in Germany, and others in Holland, Belgium, France and Switzerland are working upon complementary programmes toward the same end.

The design exhibition just open at Halsingborg, Sweden, is striking proof of this.

It is perhaps more difficult to cultivate a responsive, critical public for design than it is to influence distributors and industrialists. Yet the need for work in this sphere is more pressing than in any other. The idea already mentioned of using industrial products creatively is the final imponderable in the search for the aims of design. What can be done to encourage people to make more profound and more precise demands on the designer and so through him on the whole commercial system? Education? Yes, but where, and at what stage in development? The familiar cry for more use of design appreciation exercises at school has, as far as I am aware, hardly been answered in Europe; the recent experiments by Eames, Nelson and Girard at Georgia University appear to be most promising. Yet education in the potentialities of design given at high school and university is the only practicable solution. People do not know what pleasurable experiences are lying in wait for them, in literature for example, until a teacher has shown them the way. Design, as with all the visual arts, needs critical, explanatory presentation before it can be appreciated. As we have seen, the designer's ideas need to be conditioned by those of his public; he can research into what is wanted now, but the needs of industry go further than this. To meet them by planning a future product, the designer should initially be governed by the aims put to him by a responsible, critical public. Without doubt there is much to be done before more than a handful of people in any country can enjoy that description.

The 'analysis of beauty' has always troubled men. Yet if advanced modern designers ever hope to put aside the laissez faire attitude of creating relatively expensive products for the discriminating few, the problem of presenting design to the untutored public must be faced. As media, films are effective for quick results, but they tend to indoctrinate rather than cultivate; they lack the essential advantage of allowing the audience to refer back and to reconsider a point unhurried. What a film inevitably leaves out of account is the varying speed with which people absorb a communication. On the other hand a book, an illustrated analysis of a design, providing for varying depths of perceptivity, would not be limited in the same way. Though it would undoubtedly lack the auditory-visual impact of a film, its accessibility would tend to imbue its message with a cumulative effect.

By probing the imponderables of beauty the critic, who stands midway between commerce and consumer, hopes to arrive at a point where general acceptance on both sides can be invited. Suppose, with a china teapot in our hands, we consider certain questions. These questions, which I have attempted to use elsewhere, are not meant to provide finite answers, but to stir the brain. Firstly, do these things make a satisfactory tea and can they be operated efficiently and without strain? Now, regarding its artistic quality, what degree of intensity of thought and feeling does its form express? Does it offer an aesthetic supplement or disrupt the general effect?
Could the identical artistic effect be achieved in another way? If so, there would be no point in continuing the analysis, for if lack of precision in the use of materials is exposed, subsequent questioning is irrelevant. To have any artistic significance the teapot represents a complete revaluation of the possibilities of the materials and techniques at the designer's disposal. A useful test is this: Does it make all former teapots seem slightly less relevant to our needs and preferences? Is it something of which we have been intuitively aware, but yet never managed to express?

The teapot represents a binding together of materials and techniques conditioned by the function, to achieve a certain form. Can we say that this form surprises and pleases us? This pleasure should not be obviously presented. It should be achieved by the effort we have made, through critical analysis, to appreciate the teapot. The final and decisive aesthetic effect eludes explanation. As far as I am aware, this final experience in any form of art can only be described by similes.

Distinct from the teapot's intrinsic values are its evidential values. The contemporary vitality of the teapot depends on them. We recognize vitality, and therefore the evidential values, according to the degree to which we are aware of the Zeitgeist, or spirit of our civilization. We recognize that the matter is complex and in doing so we perceive that today we have not yet discovered an acceptable popular basis upon which each of us can erect his personal standard of excellence in design. We do not enjoy this popular working basis for agreement because we have made insufficient effort to develop our faculty for discrimination. A beginning can be made by accumulating an experience of many industrial designs in which a similar degree of vitality and intensity of expression is apparent. What they look like is important only as an aid to identification, cataloguing, etc. It is what they do to us and what we do with them that matters. We call the resulting effect pleasure—an aesthetic quality—on account of the effort we have made to possess a new experience. This unfortunately constitutes the inherent limitation in discussing visual art. An artistic standard cannot be expressed by us in visual terms—except as the most superficial pointer to what may be a rewarding experience for others.

If such a book, based on these considerations and dealing with a range of industrial products photographed and minutely described, ever comes to be written, I feel that it would help to engender an effective communication between public and designer. But in being aware of the needs and preferences on one side, we must not forget the potentialities as well as the limitations on the other. Far too little is generally known about the material, economic, social, and, in general, extra-artistic aspects of designing in industry. A teapot is not a poem, which we may analyze directly knowing that only one man was responsible for it. A teapot is the product of materials and techniques susceptible to change and development; it is the outcome of traditional or modern manufacturing methods, conditioned by designers, engineers and executives usually trained in certain ways. These elements are different for each category of product; they should be known and appreciated before relevant demands can be made on industry. Communication goes both ways. While there is patently a need to broaden industry's experience of its public, there is also the necessity of indicating to all consumers the inherent possibilities of design in industry.

The preceding article is from a speech delivered at the 1955 International Design Conference held at Aspen, Colorado.

NOTES IN PASSING
(Continued from Page 13)

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between the statements of principle and the realities; to make the pupils understand that the role of politics is to build a bridge between the ideal and the real; and to convince them that they can and should make personal contributions to this infinitely well-worth­while work.

The teacher should explain the conflicts between the ideal and the real, between the spiritual and the worldly planes, between moral requirements and political realities. There are, for example, Antigone and Creon. We may say that Antigone is right, but that does not mean that Creon is wholly wrong. Appealing to his pupils' feelings, he must awaken in them enthusiasm and indignation at the same time. This is not dangerous, provided he also appeals to their intellectual objectivity, and reminds them that, in dealing with political problems, we must often make judgments without having all the knowledge we should have. This is the heart of the problem. And the teacher who can be, at the same time, enthusiastic about moral principles and objective in the presentation of the facts will be fully carrying out his double task—of both informing and train­
ing young people.

In the last analysis, therefore, the efforts should be to bring political ideals to the pupils rather than to direct them towards political conclusions: such an ideal exists in the Universal Declara­tion of Human Rights: the affirmation of freedom and the affirmation of equality. Of course, each is in itself both splendid and hard to achieve. But the purpose of education is to present splendid and difficult tasks to young people. That is how real men are trained. The pupils should also be shown that freedom and equality, when linked together, are even harder to attain; that they can destroy each other. There is always the strong temptation to think: "Let us suppress freedom in order at least to achieve justice" or "Let us put aside justice in order at least to keep freedom." Nevertheless, the supreme goal of teaching Human Rights to young people, M. Francois concludes, is to convince them that freedom and justice, linked together, are more splendid than separately, and that the link between them is itself the true political ideal.—Unesco

TWO FAMILY DWELLING—ROMANACH
(Continued from Page 28)

and terraces are floored with antique Catalan tiles.

The color of the bricks, the varnished wood and the texture and color of the chopped concrete, resulted in a very harmonious color scheme setting off forcefully the part which each component plays in the whole.

The stairway is situated in the center of the building to facilitate the circulation within a minimum of space. This space acts at the same time as an air shaft, admitting and distributing light and air to all parts of the building. The steps of the stairs are of varnished sabicu rods and are supported by steel tensors. The hand rails of varnished sabicu wood act as beams in some spots.

In the stair well, in order to separate one house from the other without creating a sense of enclosure, some wooden jalousies were used, a traditionally Cuban custom.

In one of the houses the partition of the kitchen and living room is effected by the kitchen furniture made of varnished cedar with white Formica tops. The separation of car port from stairs was obtained by a brick jalousie.

COMBINED OFFICE AND PARKING BLOCK—SEIDLER
(Continued from Page 22)

east, west and south. Control of sunlight on the east and west sides will be provided by vertical exterior adjustable aluminum louvres manually operated in 12' 6" sections from inside, each section of louvres can be locked in any desired position, which will provide complete sun-control at any time of the year to either completely exclude, or admit sunlight.

The construction of the building is of flatslab, high strength rein­forced concrete with all floors cantilevered beyond the structural steel columns.

The full height glass walls will be made of aluminum framed sec­tions with double hung opening sashes and fixed obscured wired glass from the floor to 3 ft.

The building will have special provisions for employee recreation on the roof with kitchenettes for luncheon facilities.

A Board Room will be at the disposal of all tenants on the top floor, where Companies can hold their Directors' and Shareholders' meetings.
EXPERIMENTAL HOUSE IN PLASTICS
(Continued from Page 21)
yed in new ways both inside and outside the house. Conduits, ducts and piping, much of it integrally formed into wall and floor sections, will be made of flexible and corrosion-resistant plastics. Gaskets and stripping of plastics extruded in various cross sections will be used to seal openings and join panel sections.
The design is being refined at the Massachusetts Institute of Technology by architect Marvin Goody under the guidance of Richard W. Hamilton, director of the Monsanto-sponsored research project and research associate in the school’s Department of Architecture. It is expected that the final design will be completed by the end of the year.

ART
(Continued from Page 12)
by that collection!) Davie, it seemed to provoke reflection on his own creative method. Most of the good painters I met in America, that would not be an unusual phenomenon although his work would always distinguish him. But in Britain, Davie is a strange, wild bird who sweeps down rarely in the London art world, but whose assertive presence is felt.

Davie’s stone-converted barn is far out in the rolling countryside. His bookshelves are crowded, with many books on primitive culture and art; his walls decorated with patterns to evoke African geometric design. In this moral and physical isolation Davie functions best. He is lean, lithe, sandy-haired, nervous, distracted. He wears a full, fair beard and often speaks into it as though to himself rather than his listeners. His pale blue eyes are quick to recognize but turn away frequently. In spite of sandals, beard and eccentric manner, Davie strikes one as a genuine ascetic, a proud, arrogant-and-humble dreamer. He thinks of the artists as prophet with a mission which must be pursued with religious dedication. Davie has an elaborate but I feel flexible and spontaneously re-constructed mystique which guides his emotions but leaves his hand free. He is a believer in primitive, unadorned truth; in the truth of his bowels. The sanctity of the artist as magician is part of his credo. Very probably, his need to assert the holiness of the artist springs from the indifferent and fearful attitudes of the majority of English artists.

The mark of the boot is one side of Davie’s dual soul. For, having once made it, he can go on to more developed and subtle techniques for stirring passion. Essentially, he is not an infant-terrible: he is too much driven by his inventive demon for that. For him, the creative act is a series of acts which will result, perhaps, in a single creative fact. It is interesting in this context to note Davie’s reaction to a widely-read article by Harold Rosenberg in Art News about American “action painters.” Most of the good painters I met in England have constructively bothered by that article. For Davie, it seemed to provoke reflection on his own creative method. “For me, painting is non-action, not action.” Since he works furiously, sometimes at five paintings at a time, totally exhausting an idea within a few days, Davie’s problem is to throw out everything and later gather it together. The act of not painting is the creative, binding force. (Perhaps if Davie were not in Britain, he would be relieved of the responsibility of pondering “creative method.”)

During the past five years Davie has been wrestling with two perhaps unreconcilable problems. By temperament he is drawn to the free expressionism which allows image to spill from unfathomable source. But the poet survives in him, and he searches at the same time for symbol. Both problems have been followed intermittently for the past few years simultaneously.

A few years ago, still concerned with perspective, Davie placed clotted, organic forms in context to an established foreplane, and used diagonals to lead the eye into rear regions. A tendency to compartmentalize forms, still present in his work, supported perspective constructions. In those days his palette was still the more or less persuasive palette of “finished” painters. His backs were teased to coal-gloss, or muted to pearl; his ochres were broken into tones; his reds always delicate. More recently, Davie has nearly eliminated half-tones, and works with the flat but assertive reds of sign paint-
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...and his better paintings prove that he is reaching for a complex ideal which will never be easily accepted.

William Scott, another of the dissenters, comes by his unorthodoxy in an orthodox way. He is a product of the Royal Academy, and established his name with his early academic work. But with his need to simplify and intensify was strong enough to push him beyond first success into less advantageous ground. Like Davie, Scott (who is part Irish and part Scottish) relies primarily on instinct and would like, he says, "to paint without thinking at all." His imperative is to wrest from the few established themes he has pursued all of his life a simple but profound content. Slowly but unrelentingly Scott has evolved an abstract idiom which grows from his earlier work. When, from time to time, he paints a semi-abstract still-life, it is weaker and I believe proves that his inner need to push beyond the simple visual fact is greater than his wish to renew direct contact with the recognizable, intimate object.

Scott's themes are the table with still-life, often transformed into a personage; the figure on chair; the interior with its objects. From many sketches he evolves variations, alterations, which by virtue of intense research, become universal, full of suggested relationships. In the drawings, a chair and seated person, brought into very close focus becomes a vast landscape moving off the paper; a table with fruit becomes a person pushing up against a springy, invisible wall. Scott's line, which even in his paintings colored with earths, grays, blacks, greens and reds, is wavering and unpredictable, always evidencing the human hand. These lines create dominant movements in his works, while color, which he insists is still in the Cezanne tonal tradition, is merely a space modifier. Scott's chief distinction is his ability to suggest a form, living in a clearly defined space, and affected by the sum of human activity around it. His objects are defined not so much by physical light as by undefinable psychological pressure which insists on the relationship of things in and out of paintings to the perceiver.

In the case of Peter Lanyon, whose gentle landscape fantasies have epitomized the Cornwall school, the gradual gain of force is hard to describe. His abstractions of the moss-green, sea-shrouded coast were always couched in tonal terms; always loaded with small and often disturbingly recessive forms. Of late, Lanyon has tended to work with large surfaces, and has ventured into full-bodied color. His new free brushing and emotional attack on overwashed surfaces bring his work out of the realm of "civilized" painting into a new and far more stimulating territory.

I found perhaps half-dozen other painters whose work showed their interest in defying the English canon of the good and the civilized, but they have not quite asserted themselves with the vigor of those already mentioned.

MUSIC

(Continued from Page 11)

Seventy thousand dollars had been raised to make a cheerless fiasco. Stokowski could have won and delighted this audience by using his standard repertoire, and they would have endured a few unknown novelties for the sake of the more experienced listeners. Instead, the programs turned out to be prestigiously ill-organized, beyond the general understanding, offensive to the specialist. Twentieth century music was done a disservice, the old music was abused. Too unhappy to endure the misplaced Sibelius and feeling that neither music nor I were in a mood to be serenaded, I took off and drove my rocks home.

If by this article I offend the good citizens of Santa Barbara and my friends among them, I regret it. The good citizens need someone loud enough to speak a piece for them. I went to the Festival in good spirits; I have faithfully reported each concert as I heard it; I think the Festival disastrous. I hope and trust that the good intentions of the concert committee will survive what has happened to them, and that another series, next summer, will be prepared, taking into consideration the real audience, and without Stokowski. Cutting out what do no good.

If a moral is needed, I append it: money will not buy good programs. If advice can be used, I give it: spend half as much and make up the difference in planning. Choose a conductor who has not outgrown his business. There are at least five in Los Angeles who might have brought off even these programs—well no, I doubt that the programs in the place and circumstances were beyond bringing off.

If the committee wishes to plan for an audience of thousands,
let them visit Redlands Bowl and find out how this sort of thing is being done, summer after summer for more than thirty seasons, drawing large audiences from all over the San Bernardino Valley and from points farther out: a whole summer season for less than $70,000, and there is no admission charge. If Santa Barbara wishes to maintain a higher musical standard than that of Redlands, they will need to do a lot of planning. They will need to compromise between the few hundred and the thousands, find a successful median between the Ojai Festival and Redlands. The Ojai Festival, with limited seating capacity, can afford to set very high standards. Redlands Bowl this summer presented seventeen concerts, including two orchestral programs and three operas, plus booklets, smaller groups, and soloists. Redlands Bowl has presented chamber music, but it was real chamber music and drew a small audience. No shame in that. It would be a shame if Ojai tried to emulate Redlands and present mass programs; it would be a shame if Santa Barbara tried to emulate Ojai and exclude their larger public.

Redlands Bowl does not aim at my tastes, but I do not expect any audience of a thousand, under the best conditions, to share my tastes. If I were to program for an audience of this size, I would consult not my preferences but theirs. And I do not mean Hollywood Bowl programming, a blind boxoffice denigration of the public interest. I mean good programming, aimed just over the heads of a popular audience, just high enough to make them reach. And by gosh I would see to it that the programs were well played.

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