The Play of Shape

Buildings are shapes, and all the individual parts which make them up have shapes of their own. Before dismissing this as a statement of the obvious, ask yourself whether you have so distinct an idea of the shape of your house, or of its front-door handle, or of the chair you are now sitting in, that you could give anyone a clear and recognizable description of it. Mostly we manage with a rough mental summary of the shapes of things we see, taking them as read and cataloguing them mentally under broad generic headings like 'church with spire' or 'knob handle'. As we saw earlier, the enjoyment of architecture depends on *not* taking such things as read: hence the importance of developing a positive interest in form for its own sake.

We can start by noticing the occasions on which we do find ourselves taking such an interest. As with so many of the matters we have already explored, the consciousness of shape becomes most acute when some question of self-preservation is involved: the shape of rocks is much more immediately interesting to the climber on the cliff-face than to the picnic party on the beach below. At a rather lower level of urgency, we become aware of shape in a critical way when there is some obvious discrepancy between form and function, or between the form we see and the form which function led us to expect. To say: 'That's a damn silly shape for a corkscrew' probably reflects irritation at something which is uncomfortable to use, whereas to say: 'That's a funny shape for a church' merely reflects a certain distrust of an unfamiliar shape given to a familiar kind of building. Both kinds of criticism obviously play a considerable part in the appreciation of architecture, since apart from the all-embracing function of the building itself, most of its parts, from the roof down to the door-knobs, have a practical use. We shall return to this later: for the moment it is enough to note that making a judgement of this kind presupposes that we have noticed the *nature* of the shape itself because something in our background of everyday experience has prompted us to do so.

Below this level again, we enter a zone of interest in which shape attracts attention because one has an interest in things *of a particular kind*. Small children of the motor age are remarkably quick to detect —even at a considerable distance—the differences in shape which

distinguish one make of car from another because it is a point of pride to be able to put a name to them, and we have already noticed elsewhere the peculiarly detailed attention we pay to the shapes of our fellow-humans, especially when they are young and attractive. It is a reasonable bet that if you are already interested enough in architecture to be reading this book, your ability to take in shape is already improved simply by the existence of that particular interest, and the next step is to acquire the habit of looking out for the communications shape can make and being prepared to respond to them.

This is a matter of exercising two senses; for, unlike colour, which is purely a matter for the eye, the perception of shape involves touch as well as sight. In the process of getting a new shape fixed in the mind we make a guess at what it would feel like to the touch, and the guess is based on the comparative properties of all the things we *have* touched, or which have touched us, in the course of our lives. We know what a jagged rock will feel like before we put a hand on it and its shape, as apprehended visually, conveys associations quite different from those of a rounded boulder. We may even read similar tactile associations into the shapes of things which we do not expect to handle at all, as when we speak of the 'soft' contours of the Sussex Downs.

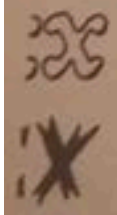
Obviously, the tactile associations of shape are particularly relevant to the three-dimensional arts of sculpture and architecture (whose products are, after all, capable of giving some sensual pleasure even to a blind man) and the experience is in fact incomplete if the sense of touch is *not* physically brought to bear on them. We have very little scientific understanding of the ways in which the two senses collaborate (although sculptors in particular obviously have an intuitive knowledge of them) beyond the fact that the associations evoked by a particular shape are dredged up in some very complicated way out of different sections of the memory-bank and in the process are compounded into one impression to which we may react with pleasure or otherwise. We can distinguish, however, certain *kinds* of association which seem to work together to give a form to its character.

Many of these go very deep indeed, for in responding to certain kinds of shape we are dipping down (as with the associations of gravity) into memory-layers deposited in very early childhood. We tend, for instance, to find smooth, rounded shapes more inviting—in the sense that they call upon us to touch them and make their closer acquaintance—than angular, jagged shapes which declare their nature

quite clearly at the first glance and in a way which asks us to stand clear. Sharp edges cut, sharp points jab, rough surfaces take the skin off. We are lucky if we are not carrying in middle age the scars of these early discoveries, and they leave scars on the memory as well. Consequently the opposed associations of 'soft' or rounded forms and 'hard' or angular forms are highly suggestive, a fact well known to advertising designers whose trade brings them into contact with regions of the subconscious in which architects hardly dare to tread. It hardly needs saying, for instance, that the first type-face in Fig. 33 is more likely to sell soft toys or babies' nightwear than the second.

Our early years provided another set of experimental records concerning matter—not, this time, what it can do to us but what we can do to it—from which we derive a tendency to read into a shape the way it might have been made and the kind of forces which have acted on it. The poking and prying activity by which a small child familiarizes himself with the world of matter around him is hardly to be distinguished from the activity by which he finds out what he can in the literal sense *make* of it. Clay and dough can be dented into any shape, earth crumbles, rubber springs back, pencils resist then snap, stone and metal resist altogether, bubbles burst, and so on; and the information about plasticity, brittleness, and the rest is duly registered, to be compounded with the other associations of softness and hardness and evoked along with them when a shape attracts our attention. Curving or bulging of a thin sheet suggests a pressure behind it—hence the explosive quality of the dome which we noticed earlier—while jagged and broken outlines suggest disruption, a violent overcoming of resistance. Straight lines and right angles suggest rigidity; simply by *being* straight or rectangular they show that no forces are deflecting or distorting them. We accept them as expressing the essence of the undisturbed.

The straight and the flat are also extremely positive and unambiguous, and this gives them a particular value in an art which often demands these qualities. A curved line or surface, unless it has the innate completeness of the perfect circle or the perfect sphere, provokes the unconscious query: '*How much* is it bent and *by what*?' The straight invites no such deliberation, and the same definite quality attaches to the perpendicular; they are absolutes and can admit no doubts without ceasing to be themselves. They are, too, essentially *man-made* shapes, rare in nature above the level of the crystal, and most unnatural in the organic world where every form gives evidence



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There remains another powerful set of associations whose existence has already been touched upon in our consideration of the aesthetics of structure—the associations of movement, which draw their power from our natural propensity for keeping an eye cocked for suggestions of life and interpreting form to ourselves in terms of the kind of energy-in-action which it may suggest. Sharp edges cleave, sharp points pierce: these associations give an aggressive forward-thrusting character to acute angles (for example, the grandstand at Galashiels, by Peter Womersley, on p. 30) and contribute to the upward-thrusting gesture made by a spire. We read a similar out-thrusting gesture into a cantilevered projection from the face of a building, and a suggestion of withdrawal into a recessed balcony. We tend to think of protuberances on a roof—especially angular ones—as 'poking up' from it rather than sitting on it, and so on. Long parallel lines are also capable of suggesting movement, especially when they run vertically (as, for instance, the mouldings of the Gothic pier) and spirals and helices even more so; the twisted 'barley-sugar' columns of the Baroque interior are the very embodiment of perpetual motion.

In this same class of association we may legitimately include those of *force under restraint*. The curves of a bent bow or a tensed spring or a bubble suggest something quite different from the flaccid curves of a bent piece of soft wire or a lump of dough. It would seem that there

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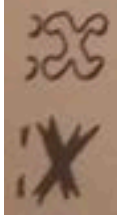

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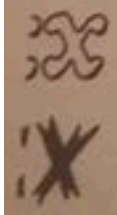

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are shapes which hint at the *presence* of latent or pent-up energy and not merely at the *effect* of energy—one might call them 'active' curves as opposed to 'passive' curves—and their existence adds a certain vividness to the architectural vocabulary.

Finally, it should be noted that as far as architecture is concerned shape and rhythm are practically indissociable, since a repetition or combination of shapes—even in so simple a form as the rolls of a corrugated iron roof—constitutes a rhythm, while we have already seen legato rhythms—as in the case of Baker House (p. 45)—which could equally well be described as shapes. Thus all the emotional associations of rhythm can be interwoven with the associations of shape *qua* shape in a very complex kind of aesthetic experience.

Given this rich associative background, it is evident that the general shape of the building as a whole, entering our consciousness in company with its scale, its properties of mass, and the message of its structural system, can have a good deal to say to us from the start. To this must be added, when we begin to explore it properly, the cumulative contribution of the shapes of its individual parts. Some of them impinge on us purely as things seen, their tactile associations being inferred from their appearance: few people would feel it necessary to climb up and find out whether the fretted parapet of the Doge's Palace is as spiky as it looks from below. Others (the mouldings around a Gothic doorway, for instance) make a visual impression from a distance and invite close-range confirmation of it by touch; and others again, such as stair handrails and door-knobs, *have* to be handled and so demand special consideration of their tactile qualities.

At this stage of detail we are likely to find ourselves employing the kind of aesthetic-cum-functional judgement implied in the earlier example of the 'damn silly corkscrew'. A thing made expressly to be gripped or handled should at least handle comfortably, and should preferably give the sort of sensuous pleasure which makes one almost sorry to let go of it. A shape which, for any of the reasons we have already touched on, gives out the message 'Hands off!' is something of an anomaly in such a situation—so far from contributing to delight, the surprise it provokes is entirely unpleasant, and the designer who puts it there is either possessed of an impish desire to add to the burden of human discomfort or disabled by poverty of tactile imagination. The latter is the more likely explanation: the further design removes itself from the craftsman's bench and on to the drawing-board the more likely it is to lose, somewhere along the line, the

'rightness of touch' which comes when the object has to be felt and smoothed over time and time again in the course of production by a trained and sensitive hand.

It is in the tactile sense, and the feeling for shape which accompanies the constant exercise of it, that architecture has probably suffered most from the historical process by which the craftsman has ceased to be a creative artist. A classic early example of this process can be seen in the change which overtook the details of Greek architecture in the hands of the Romans. The subtleties of profile and form which characterize the best Greek work (we have already noticed the case of the Doric capital, and Greek mouldings and cornices display the same passion for tensely curved contours) reflect the affectionate care of the marble-worker for the magnificent material under his hand. Adapting these details for the standardized public buildings and coarser building stones of their expanding empire, the Romans were obliged to reject the ideal of constant refinement of profile by sensitive individuals, prescribing instead simple quadrants which could be mass-produced to order by competent operatives but have nothing of the sensuous subtlety of their Greek prototypes. The Roman 'orders[1] of architecture' were essentially production jobs.

We are in something of the same position today, and in the face of the machine-technology upon which we all rely for our existence it is futile to lament the passing of the artist-craftsman who literally had his aesthetics at his finger-tips. The loss has to be made good in the education of the drawing-board designer who has superseded him, and a prerequisite of this (since we must now think in terms of mass-markets) is that the buyer and the user take an active and vocal interest in the feel of things. None of us need be short of practice material on which to exercise this interest: even before you leave home in the morning you have a dozen occasions—opening doors, turning on taps, using a shaver—to ask yourself 'Does this please my hand?' If everyone (and architects especially) cultivated this habit, the eventual results would extend a long way beyond an improvement in the design of hardware, since the feeling for form is a necessary part of the architect's equipment and, as we have seen, it involves the collaboration of two senses. If the tactile sense is blunted

[1] The 'order' in the classical sense refers to a specific combination of column-base, column, capital, and entablature (the latter being the combination of horizontal elements above the capital and including the cornice), proportioned and ornamented according to a prescribed formula.

One of the most foreign things about a foreign country, and one of the most homely about one's own, is the quality of its light. The intensity and angle of the sun, its constancy or fickleness, the expected hours of sunshine in the day or year, all enter into the sense of place, and the building which is ill adapted to these conditions is liable to seem as foreign as a sun-blistered Englishman on a Spanish beach or a Jamaican in Reykjavik. Of all the facts concerning a place these are the most unalterable—as Leon Battista Alberti succinctly remarked some four hundred years ago, the architect need not let land or even water stand in his way, but he has neither skill nor power to change the sky[1]—and traditional architecture often illustrates a very complete response to them, not only in the general form of the building but in the details of its ornamental system as well.

For instance, the habitual use of a particular kind of ornament may derive directly from its appropriateness to prevailing conditions of sunshine. Thus the glare of the hot, dry Asian plains, demanding radiation-shielded ventilation-openings rather than windows in the Western sense, encouraged the delicate filigree-piercing of the Indian *jali* and Arab *mashrabiyeh*, while in a very different climate the coloured glass of the medieval cathedral converted the greyer light of northern skies into a kind of celestial blaze, turning its very diffuseness to advantage. In strong sunlight, too, even a slight break or incision in a surface has the effect of drawing a crisp line of shadow and the articulation which can be produced by such shadow-lines depends on this kind of lighting for its full effect. There are few days of the year in which a Greek Revival building of the eighteen-thirties in Edinburgh or Manchester can give more than a faint hint of the precisely etched clarity of line which characterized its prototype, while by contrast the bold, deep relief of Gothic mouldings makes them conspicuous even in the mistiest northern light.

[1] *De Re Aedificatoria* (1485), Lib. I. Alberti was a remarkable example of the Renaissance *uomo universale*, for he was not only an architectural designer and theorist but a painter, dramatist, mathematician, musician, and athlete. His classic work (also known as *The Ten Books of Architecture*) aimed at providing a systematic theoretical foundation for design, and its subject-matter ranged from micro-climatology to the grammar of ornament. It had a great influence on Renaissance and post-Renaissance architecture and some of its more fundamental observations are still quoted with respect.

Such considerations, distilled into traditions through many centuries of trial and error, become part of the intuitive stock-in-trade of the craftsman who seeks to show off his skill to best advantage, and of the architect who works with him and uses that skill to give point and richness to the communication he is trying to make. The architect, indeed, is deeply concerned with light, functionally as a form of energy which he has to control for purposes of human physical comfort and aesthetically for the contribution it can make to the total experience of the building. As far as the outside of the building is concerned his control is strictly limited, for he cannot alter the brightness of the sun or contrive openings in the clouds through which it will shine in a particularly flattering direction. But in the interior he has a great deal more scope, since he can dictate to a considerable extent how natural light is admitted and still more precisely how artificial lighting is placed: here he can modify its quality, intensity, and direction, as a theatrical producer does, to emphasize a feature or intensify a mood.

The consideration of enrichment, whether textural or ornamental, is therefore closely bound up with the consideration of light. To take a very obvious example, texture and shape gain in force and solidity when side-lit (as in the illustration of the Elephant house at London Zoo, pp. 136–7), whereas strong frontal or non-directional lighting kills the shadows and highlights which make three-dimensional form readily identifiable. Similarly, low relief and muted colour are liable to subside into insignificance in a dim light—a fact clearly recognized by the Norman builders, who compensated for the shallowness of their incised decoration by picking it out in strong heraldic colours. It is noticeable, too, that three-dimensional form such as sculpture in-the-round gains in arresting quality when lit up against a dark background and that bold outline becomes doubly bold when silhouetted against light. In the latter case the illuminated background may be a different plane, rather like the cyclorama of a theatre (as in the illustration of a Baroque chancel at Weltenburg, p. 138) or, as in the case of the glowing gold backgrounds of Byzantine mosaics, it may be in the same plane as the figure which it silhouettes.

To find miniature examples of such devices for 'supercharging' shape by the cunning use of light one need look no further than the more sophisticated window-displays in any big city. Indeed, this is not a bad way of learning to appreciate the architecture of those cultures—such as the Baroque, with its special leaning towards

theatricality—which have found a particular pleasure in extracting the maximum of drama from three-dimensional form. But light is not only a medium by which form is perceived and textural or ornamental enrichment shown to fullest advantage; it is also in its own right an element in the aesthetic experience, for it is powerfully charged with associative values reaching so far back into the history of the race and the childhood experience of the individual that they can fairly be described as universal. Most obviously light stands for clarity, for it makes things clearly observable and therefore intellectually comprehensible. Darkness symbolizes the obscure and mysterious, charged perhaps with unknown and formless terrors, but an even dimness (once the eye has adjusted itself to it) is associated with a lowering of tension which promotes rest or meditation. Moreover daylight provides an intimation of outside space which it is almost impossible to disregard: it is by our impression of the 'lightsomeness' of an interior that we make our first intuitive assessment of the quality which has been described earlier as its 'space-permeability', and the shifts and changes in daylight introduce both a rhythm and a variety into life which give the window a psychological importance far exceeding its value as a piece of lighting-engineer's equipment. And by an interesting inversion of values, when night falls it is the *illuminated* space, the pool of light made by man amid nature's darkness, which becomes symbolical of Inside and 'togetherness', associations which are powerful enough to justify Steen Eiler Rasmussen's dictum: 'If you wish to create an effect of openness, you cannot employ concentrated light.'[1] Moreover light can be used not only to suggest space or to emphasize the nature of a particular space, but to reinforce the 'drawing' or 'beckoning' power of certain spatial arrangements. In the interior a light-flooded space at the end of a dimmer vista, or the suggestion of such a space around a corner, can act as a most powerful magnet, while externally a shaded colonnade or portico will exercise a similar pull in conditions of blinding sun.

So far we have been using the word 'light' in its everyday sense, meaning the sort of light we expect from the sun or from artificial sources which approximate more or less to natural or 'pure' light. However, the operations of science from Newton's time onwards have shown that this pure light is really a cocktail of radiation-

[1] *Experiencing Architecture.*

se chancel at burg, Bavaria, by s and Egid Asam.

energies of different wave-lengths, that when we say we 'see a colour' we are trying to describe a sensation caused by radiation of a particular wave-length: in fact, that light and colour are inseparable. It is within the architect's power to determine, within limits, the wave-length of the light-energy reflected from the surfaces he designs and he may even (in the interior at least) alter the natural mixture of wave-lengths —as for instance by passing the light through tinted glass—*before* it falls on these surfaces. And since different wave-lengths of light produce inescapable physiological and psychological effects on the human observer—especially when bombarded with them on the scale offered by the surfaces of a building—the use of colour puts the architect in

possession of a very powerful magic. The recognition of colour plays a most important part in visual perception in providing clues by which objects are identified and warning signals interpreted, and before we are very old we have equipped ourselves with a whole library of colour-associations upon which we cannot help drawing in the process of 'reading sign' on buildings as on other things. One does not have to be a psychologist, for instance, to know that colour used heraldically—as in the national flag or the colours of the home football-team—can take on a symbolical, emotionally-loaded value, and it is a commonplace of religious art that certain colour combinations, like the blue and white of the Madonna, become established as iconographically correct and consequently can play a decisive part in a decorative scheme.

It is commonly accepted, too, that we respond emotionally to *chroma*—in other words, that intense colours have more power to excite than subdued colours—and that certain bands of the spectrum have acquired associations with impressions which really belong to the other senses, such as warmth and coolness, weight, even noise and quiet. There is hardly space here to set out into the almost uncharted territory of colour-psychology; it is a debatable land into which the psychologist himself ventures with caution and only the painter, being guided by intuition and not accountable to science, can feel sure of his steps. But any serious observer of architecture must be prepared to recognize that his reaction to a building may be literally 'coloured' in the sense that the associations of colour are influencing his judgement in ways that the designer may or may not have intended.

While it is necessary to give due weight to this associative magic of colour—especially where it is provided permanently by an inherent characteristic of the facing material, as in Persian tiles and Byzantine mosaic, rather than ephemerally by a coat of paint—it is important to realize that it is not by any means the whole story. Colour is also a useful and sometimes indispensable medium for articulating form and space. Some colours, for instance, are more striking than others, and thus can give additional emphasis to a focal point in a composition. Strong colour contrasts possess a similar eye-catching quality which can be used for the express purpose of dividing up a surface (as we have already seen in the case of San Miniato al Monte), creating a rhythm or emphasizing a point of importance such as a meeting of two spaces. Colour contrast, although of a more sub

dued kind, can also help the perception of low-relief ornament, which as we have already seen may be lost in unfavourable lighting conditions: the 'Adam style'[1] of fine low-relief plasterwork is naturally and properly associated with the so-called 'Adam colours' favoured by the later Georgians because it often needs such a background to show its crisp white elegance to the best advantage. Furthermore, there is general agreement that colours towards the red end of the spectrum are felt to 'stand forward' in a way which may be either aggressive or welcoming according to circumstances, and that colours towards the blue end are felt to 'stand back' in a way which may be interpreted as peaceful or as coolly aloof. These characteristics can be used to articulate form by affecting the apparent relationships of planes, and they can also be used to articulate space both by affecting its apparent size and by reinforcing its suggestions of advance and retreat.

From the foregoing it should be clear that the manipulation of light (including that particular manifestation of light which we call colour) offers, in its own right, considerable possibilities of touching the emotions as well as of enlivening and articulating form and space. To those architects of the early twentieth century who had rejected the traditional use of ornament for just such purposes these possibilities made a powerful appeal; and the appeal was reinforced by the fact that new experiments with light had become not only possible but necessary. Now that skeletal structures had begun to take the place of solid masonry, the admission of daylight was no longer a matter of arranging holes in the walls or roof according to well established conventions, with results which could be predicted by any experienced and competent designer. The situation was complicated, too, by the general adoption of electricity as the main source of artificial light, for this new factor did not affect only the inside of the building. The combination of brilliantly lit interior and transparent external wall placed a new importance on the appearance of architecture by night, to which still further importance was given by the invention of floodlighting and by the emergence of neon sky-signs as an inevitable corollary of commercial building. In short there

[1] Robert Adam (1728–92) and his brothers were particularly famous for a treatment of interiors which broke away from the ponderous Palladian conventions of the day in favour of a freer interpretation of classical models within a style characterized by lightness and delicacy.

had never been a way of building which so challenged the architect to play with light for twenty-four hours a day.

Much of the functionalist architecture of the nineteen-twenties and nineteen-thirties seems in retrospect to suggest that the designers of the period took this invitation rather solemnly, over-exalting the ideal of ample and evenly diffused light (much as they exalted the ideal of the severely plain, smooth surface) and overlooking or suppressing the kind of fun which can be provided by glitter, twinkle, and contrast. They were, of course, very interested indeed in light as a symbol of space, freedom, and reason—in the banishing of shadows both metaphorically and literally—and having attached a similar symbolic value to the uncluttered surface and thus banished the kind of enrichment which most obviously depends on highlight and shadow-play for its effect, they had all the less reason to be interested in light as a dramatizer of texture and relief.

Having said this, it is necessary to add that the real masters of the modern movement were not so simple as to assume (like some of their imitators) that it took no more than a widening of windows and a heightening of illumination-levels to produce a new aesthetic of space and light. Nor did they imagine that the glass-enclosed skeleton, in one form or another, would provide an automatic answer to every building task. Le Corbusier, for instance—perhaps the most widely known of all the protagonists of the international school—has produced in the chapel at Ronchamp a building which, one might say, *celebrates* the fact of light's existence in ways which could never be approached by any transparent space-frame. In this small building one is never allowed to take light for granted. Externally, it manifests itself as the revealer of form in all its clarity through the play of shad and shadow on the granular texture of white curved masses; i ternally, as something much more mysterious, a quality produc by the multiple reflections of sunlight from immensely deep wind embrasures and by its downward penetration through shafts f invisible openings above the roof, a dimness jewelled here and t according to one's position in the enclosed space, by a sl coloured glass which transforms daylight into an accent o colour. It is futile to try to catalogue the subtleties of Ronch describe the skill with which they are integrated into a sin moving aesthetic experience, but there is little doubt that i owes more to Le Corbusier's command of light than to single characteristic.

In this building, as elsewhere in his later years, Le Corbusier displayed an affection for rough surface texture which to some people, remembering the early functionalist ideal of smooth, polished precision, seemed distinctly odd. It would seem to me, on the other hand, that a concern with light for its own properties (that is, not merely as a symbol of this and that) and with pure form and the 'feel of shape' can hardly fail to lead to a concern with texture, since texture, form, and light are complementary. Large-scale rounded forms like those of Ronchamp need granular texture to bring out the full effect of the gradation of light which makes their roundness real, while in return this gradation—at close range a multiplicity of points of reflection and pits of shadow—gives light itself a new immediacy of interest. It may be significant that of all the founding-fathers of the modern movement it was the one most completely opposed to the 'machine look'—Frank Lloyd Wright—who made the most consistent use of dramatic contrasts of light as, for example, in 'Taliesin III'. Wright the nature-worshipper never abjured his passion for natural textures and Wright the individualist never turned his back on decorative enrichment, and for both of these an acute consciousness of the dramatizing quality of light is essential. Consequently it was necessary for him to take this quality into account when making his own reappraisal of the role of light in an architecture of spatial continuity and that in a way which was much less necessary for those whom he rather unkindly called the 'flat-faced' school of modernists.

I am well aware that this view contains some fairly drastic oversimplifications and I am not putting it forward as revealed truth but simply as a provocation for the kind of argument without which the appreciation of any art becomes rather a dreary schoolroom exercise. Nevertheless I believe it has a certain relevance to the situation in architecture at the present day. During the last twenty years there has been a marked revival of interest in colour and especially in strong colour contrasts applied to architecture, and with it a renewed (and often disastrous) interest in pattern. This may only be an indication of the pendulum swing of fashion, perhaps given its first impetus by the release from the enforced austerity of the Second World War and its aftermath. But there has also been an upsurge of interest in enrichment of a different kind, not bought by the can, roll, or sheet but commissioned from artists who have themselves become involved in the building operation and are stimulated by the possibility of

nage Chapel,
amp, by Le
ier: interior.
FLW Wright

its total effect it must rely on a rational statement of the relationship between space and structure so compelling that it can delight by its very conciseness and lucidity.

This is a very high expression of what I earlier called the classical quality of the thoroughbred and it makes very exacting demands. Of the designer it requires a disciplined intellect combined with a most acute sensitivity to abstract shape and to the relationship of form and space. On the observer's part it demands an equally acute sensitivity and also a willingness to debar from the act of judgement that portion of his nature which delights in mystifications and whimsies, enjoys scribbling on blank spaces and finds recreation in deciphering the scribblings of others. It must be understood, however, that it was no part of the intention of the 'functionalist' or 'internationalist' school (as it came to be called) to create a joyless architecture. Their aim was rather to evoke the purest kind of delight out of the beauty of essential form, designed so perfectly that it needs no enrichment beyond that which is provided naturally by the texture and colour of its surfaces and the play of light and shadow.

To appreciate the full flavour of modern architecture it is necessary to trace some of the consequences which flowed from this radical and very uncompromising doctrine. Before we do so, however, we have to give some attention to this matter of the play of light.

addressing themselves to a public audience from the walls of a building instead of to a private audience within the walls of a gallery.

One of the most interesting symptoms of this interest is the reappearance of sculpture in a form much more closely related to texture than to anything which has commonly been regarded as sculpture in the past, sometimes carried out in cast concrete, sometimes in metal, sometimes in the new synthetic materials. Another is the reappearance of coloured glass, not in conventional leaded panes telling a story or adding a 'touch of class' to the bathroom window of the suburban house but as pure, abstract colour-play, generally in thick, richly coloured slabs, sometimes set directly into piercing in concrete, sometimes welded together.

Such decorations depend wholly on the play of light for their visual impact rather than on their story-line or their attachment to a traditional symbol-system and they utilize light in a way which makes us take notice of it instead of taking it for granted. From this point of view they would seem an eminently suitable accompaniment to an architecture which from its origins onwards has exalted light, and it is tempting to see this as the ultimate paradox of the modern movement: that the very reappraisal which it compelled has conduced to a development so antithetical to its original anti-ornamental philosophy.

This raises the whole question of relevance as a major issue, for it will be remembered that the core of the indictment against ornament was that, whatever its intrinsic aesthetic properties, it was simply irrelevant to the architecture of the twentieth century and that cluttering up buildings with irrelevancies is a bad thing. Now the sort of enrichment I have been citing can hardly be described as irrelevant in the light of modern industrial processes. These sculptors are not hammer-and-chisel men but users of industrial techniques which are, if anything, more advanced than those which go to make the building fabric itself, and their design—as in the case of cast concrete—often grows out of the nature of the manufacturing process itself, as we have observed primitive ornament to do. Nor can it be considered as irrelevant to the spirit of the age. These abstract and indeterminate patterns, these almost arbitrary splashes of light—not embodiments of myths but an invitation to read into them our private and personal mini-myths, as in the coals of a fire—are, if anything, more appropriate to our troubled and uncertain age than unadorned form of a classical severity with its built-in air of a complete, final, and logical statement, could ever be. The most damning charge of all—that of

irrelevance to the building-task—will hardly hold water either, at least not as a blanket indictment. There are parts of many buildings—as for instance where one habitually finds oneself waiting for a taxi or a drink or for the Chairman of the Board to stop speaking—where some occupation for the restless eye and fretting mind is a positive functional need. In such places it would seem no more indecent for the restless eye to be offered occupation by abstract pattern conceived by an artist than by the natural abstractions of veined marble or wood veneer, and it is certainly conceivable that the mural will be more conducive to fruitful meditation than a framed portrait of the reigning monarch or the deceased founder of the company.

One cannot, then, use as a basis of appreciation any such simple dogma as 'ornament is crime' any more than one can accept Ruskin's belief that 'ornament is the principal part of architecture'.[1] The critical observer is left with the rather more exacting exercise of applying his judgement to the question whether in the particular instance under his eye it is truly an enrichment—in the sense that it gives some extra cogency and sparkle to the communication the architect is trying to make by way of space and structure—or merely a distraction. The distraction, it should be noted, may be inadvertent or intentional. An architect may, if his judgement is erratic, design a building which is 'good in its bones'—that is, in the elegance of its space-structure relationship—and then give it the kind of fussy cosmetic treatment which no more enriches the aesthetic experience than the buzz of a bluebottle enhances the performance of a string quartet. Another may use the distraction of ornament quite deliberately to eke out the poverty of his imagination or disguise the weakness of his essential statement.

The temptations of this latter course are obvious enough, especially when one remembers that the unsophisticated eye is more readily caught by ornament than by 'pure' form; and so, in spite of the pendulum swing away from the prohibitionist attitude, there are still fundamentalists who fear the too ready acceptance of decoration as the first step on a perilous slope at the bottom of which the architect will find himself once more in his Victorian state as the rich man's cosmetician. In my opinion this anxiety is misdirected, for we are not in the Victorian situation. No one can unwrite the architectural history of the last sixty years or unmake the climate of ideas built up by

mural by
William Mitchell. *Cement
and Concrete Association*

1 *Lectures on Architecture and Painting* (1854).

such men as Lethaby,[1] Loos, Gropius, and Le Corbusier, nor can an over-crowded world afford the wastage on purely cosmetic tasks of people whose basic skill is the ordering of space.

It is true that one of the sources of Victorian ornamental exuberance—namely the desire of the power-owner to show off—continues to bubble away merrily and, human nature being what it is, will do so forever. It is also true that this motive often produces buildings which strike later generations as comical or irritating in the blatancy of their attempts to catch the eye. But it seems unlikely that applied enrichment will be the most favoured medium for this kind of courtship-display, for a much more forcible one, capable of catching the eye even at motor-car speeds, is available. The dramatic possibilities of form generated directly from a spatial conception (as at Ronchamp) allied to the form-inspiring resources of modern construction (as with Nervi) enable the whole building to evolve into an abstract sculpture on a superhuman scale, while the resources of modern lighting, putting that sculpture on exhibition even more conspicuously by night than by day, can dramatize the interplay of space and structure by floodlighting the solids and turning transparent walls into the glasses of an enormous lantern.

These dazzling possibilities are not without an element of danger, not to the architect's modern role as benefactor of society (his profession, in the mass, is both too idealistic and too shrewd to trade that in for the old one of monumental sculptor), but to his use of the language of his art. The new vision of structure *become* ornament is just as intoxicating as the earlier concept of structure glorified *by* ornament, and when he lets it go to his head it can affect his process of judgement and communication like any other intoxicant, investing a simple statement with wildly disproportionate aggressiveness or turning it into portentous rhetoric which he fondly mistakes for eloquence. One of the most difficult tasks of the enthusiastic architect has always been to learn to hold his aesthetic liquor and today more than ever he needs the understanding friend who can detect the symptoms and pull him up before he becomes a bore. This is the most valuable function of the critic—whether professional or amateur—and it involves some acquaintance with the process by which the architect's ideas are shaped.

[1] See Biographical Note.

It goes without saying that appreciation is deepened by cultivating the habit of intelligent criticism. By 'criticism' I do not mean the mournful activity of destroying a pleasure by analysing it out of existence or by picking it over in search of flaws. To explain why one likes something (besides being extraordinarily difficult) is rather like killing a butterfly and pinning it down on a board; but when one takes a spontaneous *dislike* to something it does seem to be in human nature to clarify the impression by finding an explanation for it. As a rule the people who enjoy X's beer simply go ahead and drink it without feeling it necessary to explain, like the man in the television commercial, about its manly, nutty flavour; it is the man who finds it weak, sour stuff who is most ready to put his opinion into words. If the opinion is an intelligent one and if enough beer-drinkers voice it, there is a chance that X and Co. will improve their brewing methods, and thus it is possible for intelligent criticism to operate as a form of quality control.

Such criticism is particularly necessary to the health of an art as public as architecture, and it demands in the first instance some knowledge of the possibilities and limitations of the medium. If someone says he dislikes X's beer because it makes a very poor filling for sandwiches, he is not going to be taken seriously; and by the same token it is not fair criticism of a Shakespearian sonnet that it does not have the epic range of a Shakespearian tragedy. Indeed if Shakespeare had ruined a sonnet by trying to squeeze the whole theme of *Hamlet* into it, he would be open to the perfectly just criticism that he had a magnificent theme but picked the wrong medium.

One is not only entitled but obliged to take this matter into consideration in criticizing a work of art. Obviously architecture is not, by nature, a representational art. An architect who sets himself to design an air terminal which looks like an aircraft or a yacht club which looks like a yacht is trying, in effect, to make a kind of visual pun in brick and concrete. At the best it will provoke a certain mild amusement which rapidly turns into boredom or irritation. Architecture is an art which must 'contain *within itself* the justification of its own primary forms'[1] and these primary forms, as we saw earlier, can

[1] Collins, *Changing Ideals in Modern Architecture*.