

VIII

SCALE

1. *Various Meanings of Scale*

UNFORTUNATELY the word 'scale' is very often used, even by architects, in several very different senses. The same is true, of course, of many words in our language—'style' and 'proportion' among them. Scale, in the proper sense in which it is applicable to design, is a matter in which the designer has much latitude of choice. In this choice there is something very near to one right and many wrongs for any given case. Once the choice is made, there is an almost absolute right and wrong affecting the sizes of everything, down to minute details, in the interest of consistency. This is so whether the problem be a six-inch hat-pin, or a three-hundred-foot skyscraper. It is not the six inches, or the six times fifty feet that is right or wrong in scale. The size of the pin and of the skyscraper are right, or wrong, the one in virtue of efficiency in keeping a hat from being blown off a head of hair, the other in producing an income commensurate with the investment in land and construction. Their scale is a very different matter. In the case of a war monument there may be no question of practical efficiency, based on accommodation, to dictate size; yet artistic efficiency may demand a certain size (which may be small or as large as the means available will allow).

The designer's meaning of the word is further obscured by such current phrases as 'war on the grand scale', which only means a war in which more soldiers and batteries are used than in ordinary average warfare. The phrase 'gigantic scale' is more in conformity with scale as here under consideration, for the word gigantic connotes giants and scale has something to do with size, even if it is not size, while the two words together do suggest that *everything* about the object which the phrase describes would be comfortable and convenient for giants and far too big to suit mere men. But 'gigantic' is a very poor word wherewith to describe the size of a very big ship, for all ships are in very nearly the same scale throughout their fabric; funnels, engine-rooms, masts, and the envelope of the hull may, however, be large, or very large, when compared with

those of usual ships. The impression of largeness which a great liner produces at a near view is, in great measure, due to the comparative smallness of its scale; this it shares with any boat which has a cabin ceiling below its deck—sixty-foot schooners and the like. A ship is from its nature made up of decks; something which those who use historical craft as the subject of decoration very often forget. Turner and Brangwyn have delighted to portray the bigness of ships, and have always appreciated the smallness of their scale as an aid to this end.

To the engineer concerned with pure design, scale is something germane to the problem. He puts big things and little things together, if his problem is made up of big things and little things, and their sizes are determined solely by purpose, material, and technique with emphasis on the economic aspects of all assembled parts. He is not usually interested in how big, or small, his designed object can be made to look, but only in how big it actually has to be in linear, square, and cubic feet. The architect might almost be defined as a person who cares more about how big things look than how big they are. This does not mean that he has an obsession for making everything look bigger than it is, although he may work that trick on occasions.

2. *Phraseology of Scale*

Let us first deal with scales in the original sense of measures by which drawings can be regulated. In small-scale drawings a great deal of detail is of necessity left out which in a drawing of larger scale would have to appear, if verisimilitude is to be attained. Architectural drawing, in so far as it can be regarded as an art at all, is largely a matter of knowing what to leave out, and how to simplify the facts of which the designer is so very well aware. The temptation is to show what he knows, or intends, rather than what can be seen under the conditions the drawing represents, as when the elevation of a large building is shown in its entirety. These conditions involve the assumption of distance between the object and the eye when small scales such as one-eighth or one-sixteenth or one-thirty-second of an inch to the foot are employed to enable large objects to be represented on sheets of convenient sizes from 20 to 60 in. in length. The designer surveying his drawing on his board, two or three feet from his eye, is, so to speak, a hundred or, maybe, a thousand feet away from the object, and, if he knows his

business as a draughtsman, tries to show what can be seen at that distance.

The details of parts are later designed and shown to larger scales allowing of more information as to detail. If the designer studies different parts to different scales, he may, while getting each such part right in size with respect to the small-scale general drawing, fall into inconsistency and error of judgement with respect to the subdivisions of these parts. His mechanical process may betray him into getting certain elements of his design 'out of scale' or, in non-technical language, too big, or too small, with respect to other elements. Too big or too small, that is to say with respect to his artistic and possibly also with respect to his utilitarian intention. The practice of developing all details to a homogeneous scale— $\frac{1}{4}$ or $\frac{3}{4}$ or 1 in. to the foot—automatically aids in 'maintenance of scale' throughout the design.

When one uses such phrases as 'out of scale' and 'maintenance of scale' one is no longer talking about arbitrary ratios of inches and feet, but of relative sizes of parts with respect both to the whole and to a general unit. In the case of buildings and furniture, that unit is the size of a man. The architects of the Renaissance period habitually and very wisely kept themselves conscious of this unit by drawing nude figures carrying ten-foot measuring rods, here and there, upon their scale drawings.

The conventional orders of architecture (structurally illogical as they are found to be on analysis whenever employed beyond very definite limits of size, or without regard to material considerations) are of the greatest use as artificial aids for the maintenance of a scale when once it has been established or chosen. On 'choice of scale' more will be said later.

The 'predominant scale' once it is established for a given design may be large or small (relatively, of course, to the extraneous unit, say a man). A large building, such as the Houses of Parliament, Westminster, may be very small in scale, and a small building, such as the Water Gate at Whitehall, may be very large in scale, depending on the choice the artist exercises. If parts of the building are in larger or smaller scale—being parts they are of course smaller in fact than the building—then they are 'out of scale'. Certain impressions and effects are produced by consciously employing two or more scales in one building, but, unless one scale is distinctly predominant, confusion of impression is inevitable. 'Enhancing

the scale' of a building, that is to say, making it look larger than it otherwise would, or, in extreme cases, than it actually happens to be, is usually achieved by resort to small scale for some minor element. In Italian palaces, the monstrous predominant scale is often made more than merely evident by unexpected reversion to the strictly convenient human scale in such matters as balustrading of balconies at the level of the 'piano nobile' or main floor.

Contrasting scales, arising in the case of buildings set cheek by jowl on a street frontage, are often unfortunate; usually the building in smaller scale is the sufferer. Mutual enhancement of character by contrasting scales, whether intentional on the part of the builder or not, is sometimes brought about in this way. The Logetta at the foot of the Campanile in Venice and Giotto's Tower hard by the Duomo in Florence, are cases in point where small buildings in small scale contrast to mutual advantage with very large buildings in fairly large scale. The lych-gate with very low beams occurring in the wall surrounding the precincts of the church of Hoar Cross, near Burton-on-Trent, is another case in point. From the gate a startling view of the tall square tower bursts on the beholder, and it seems very much bigger than its prototype at Hedon in Yorkshire.

Cases of buildings which are 'over scaled' are not uncommon. The interior of the Duomo in Florence fails to give adequate impression for its actual size because all the parts of it are relatively too big and simple; there is a consequent 'loss of scale'. The interior of St. Peter's in Rome suffers in the same way. Sir Christopher Wren, the greatest master of scale, perhaps, who ever set out an order, succeeded in making the interior of St. Paul's fully impressive. The recent mosaic decorations, by the way, have gone far to ruin the original effect.

By 'maintaining scale' the integrity of the impression of size is preserved. No device, artifice, or expedient available to the designer is more potent in the interest of unity. When a part is 'out of scale' through being on a scale larger than that which predominates, there is inevitable sacrifice of apparent size in the whole; when smaller there is sometimes enhancement. In either case there is apt to be confusion.

Before passing on to the considerations on which choice of scale is based, 'relative size' is offered as a conveniently short definition

of scale, remembering that the 'relation' involves three, not two, things, one of which is complex—the whole, its several parts, and an object of known dimensions external to the design.

3. *Choice of Scale*

Choice in this matter is far from unlimited. The range of choice is conditioned chiefly by use and purpose in any given case. Restricting attention to accommodation in structures for the present, it will be helpful to consider some scales of convenience.

In cruising yachts and pullman cars, their nature demands the utmost restriction relative to the size of human beings; seat heights and leg space are just as in large structures, however. In cottages of the 'but and ben' type, slightly higher ceilings than those in boats and vehicles are possible; staircases and passages may be a little wider; doors less than 2 ft. 3 in. wide and 6 ft. 3 in. high will not be much use; all the activities of cooking, eating, and entertaining, for which 'the rich man in his hall' demands store-rooms, larders, kitchens, pantries, dining-room, and drawing-rooms, will be conducted between four walls, the farthest apart of which may be but 12 or 15 ft. from one another. And so on, rising in the social scale, we get the very small house, the small house, and the house which needs a servant or two to run, and the larger house, and the great house. Each of these is in very many ways bigger and, let us hope, better, till stairways and corridors have become wide enough to admit of passage by more than one person at a time, and doorways attain to the dignity of folding doors. Rooms may then have ceilings at twice, three, or four times the height of a man, and the domestic scale has overlapped the scale required in smaller public buildings and business premises. And so on again; the buildings required for corporate uses demand the scales appropriate to their collegiate, educational, legislative, recreational, and ceremonial functions, ending up with the order of magnitude pervading such monuments as St. Peter's at Rome, or the Bowl at Yale University.

Thus, what may be an outrageously large scale to employ for a monumental gate lodge may be entirely inadequate for handling the design of a concert hall.

Choice of large scale for small buildings is justifiable in cases where the small building is part and parcel of a group of larger building, or occurs in a designed park as a part of an affair of wide

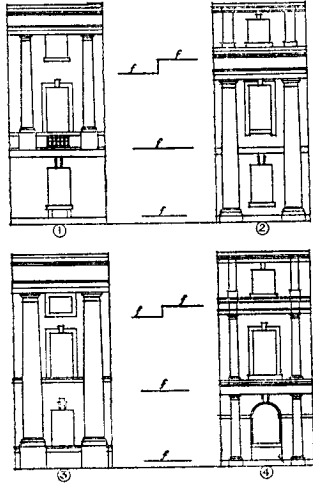
open spaces and plantations. On the other hand, a small building, like a small dog, may have a latent interest and charm in virtue of its smallness.

The scale on which a building is designed will generally be right, or normal, when it is such that, without straining practical requirements, the building looks its biggest, giving full impression for its actual bulk. It is fatally easy to rob a building, large or small, of this inherent dignity of size by applying to its design a scale inconsistently large or small. For example, and supposing that there is a question of using orders, these may be superimposed to correspond with the three stories of a structure 80 ft. high; or two stories may be embraced in one order, the odd story, if above, being treated as an attic story, or, if below, as a basement without an order; or the three stories may be embraced in one order. These alternatives may all be feasible with suitable adjustments as to where capitals and bases occur with respect to the heads, or sills, of openings. Sentiment apart, the grandiose order may prove the most, or the least effective in making the building look its size, when its surroundings, or adjacent structures, are taken into account. Then again, the width of the bays may be such that one or other of these treatments is most effective; or this condition may rule them all out.

FIG. 33. The employment of the orders for scale.

Order embracing: 1, two upper stories; 2, two lower stories; 3, three stories; and 4, separate orders for each story.

Next, suppose a monument consisting of a chamber surmounted by an order carrying a cupola surmounted in turn by an urn; and suppose that all main dimensions are fixed even to the height of the columns. It is still open to the designer within a fairly wide range to choose a scale, and whether it is the best in the circumstances will still depend very considerably on the surroundings, or site. A promontory on a lake amid rugged rocks and heavy timber, a confined square or courtyard surrounded by buildings, the end of a vista in a garden, may each furnish good reasons for a preference.



Scale is not insensitive to material. The finer and softer materials are more readily modified. Dark materials are less responsive to light and shade than those of light colour. The case of material obtainable only in small pieces, such as the stone available to the medieval Gothic cathedral builders, or of material readily available in large blocks, may be a consideration. Theodoric's tomb at Ravenna is a very small building on a very large scale. The mono-

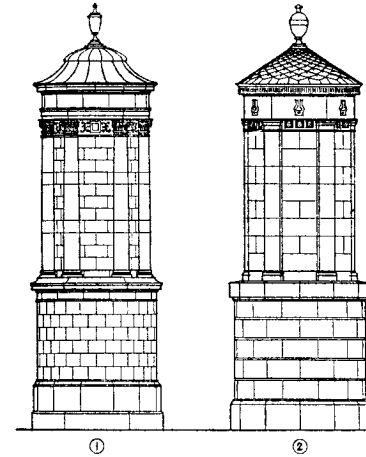


FIG. 34.

FIG. 34. The same problem solved on: 1. smallest compatible scale, and 2. largest compatible scale.

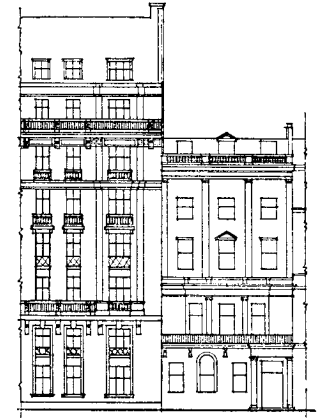


FIG. 35.

FIG. 35. Adjoining buildings in conflicting scales.

lithic dome, whose weight has pressed the whole structure deep into the mud, is the determinant of its every detail.

The unregulated street architecture prevalent in English-speaking countries no doubt owes much of its interest to its freedom, but this freedom is prolific in clashes of scale. In city architecture, respect for the scale of what has already been built might well be a consideration when exercising choice. Urbanity has something of mercy in it, and mercy carries a double blessing.

In the case of an institutional group of buildings, all differing in size and in use, the most ready and elastic means of emphasizing their group relationship is by a rigorous maintenance of the scale, once it has been established.

The sky-scraper builders of Manhattan have one and all done

their wicked best to compete for attention with rival scales, as well as rivalling sizes, and their efforts would be far more disturbing and dissipating than they actually are but for the fact that the raw material of their compositions consists of homogeneous units of office accommodation. Yet lower Broadway, like the attorney's 'elderly ugly daughter', can look very charming in a half-light with enough haze to reduce its monstrosities to silhouette while still letting the myriad window dots tell their story.

4. *Examples of Choice of Scale*

A clashing contrast in scale, where there is something really worthy of expression by recourse to so dynamic and arresting an expedient, may be all to the good. St. Peter's, towering serene and immense above the sea of roofs under which the infinite complexity of human life is carried on, gains enormously by their spreading contiguity which offers so ready a measure of its own bulk.

But suppose that St. Peter's, surrounded only by a few acres of villa development, was set three miles away in the open Campagna; what a fatuous affair the combination would be!

Choice of scale may be dependent on a specific available point of view. The Opera House in Paris is a case in point. There is a superb piece of street planning leading up to this notable composition which bristles with difficulties of scale adroitly overcome. The questionable quality of its lavish scheme of decoration need not trouble us here. The building is seen intimately from the open space and streets adjoining it, but also as closing the vista of the Avenue de l'Opéra. The dominant scale is set with reference to the large unbroken element which houses the stage loft; and this scale runs through the whole fabric in a broad way. But the lower stories have a minor scheme of subdivision designed to impress the passer-by. All this is lost, as it is intended to be, in the distant Avenue view of the thing as a whole. There are, however, intermediate points from which a distinct rivalry of scales is felt. That is to say in certain views the building lacks unity of scale. Such an expedient can rarely be wholly successful.

The Russian Commercial and Industrial Bank on the Morskaya, St. Petersburg, founded on the design of the Gran Guardia at Verona, and an at least equally successful building of large size on a very large scale, is designed to be seen from the street. The façade is on a superhuman scale throughout, to which the doorways and

wicket gates at the street level furnish the key. If this building stood by itself in open surroundings and could be seen from a distance of a few hundred yards, it might readily be assumed to be only half as high and half as broad as it is. There are cases where simplicity combines with consistency to render it almost necessary to rub one's nose on a plinth before realizing the size of large-scale

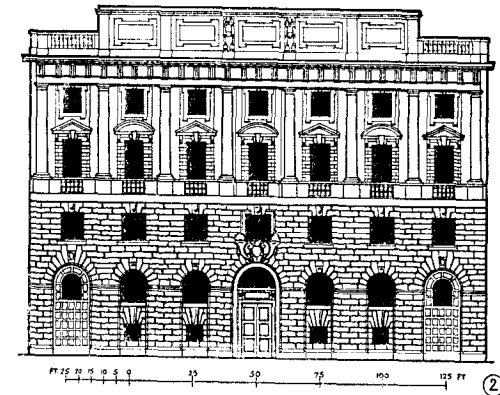
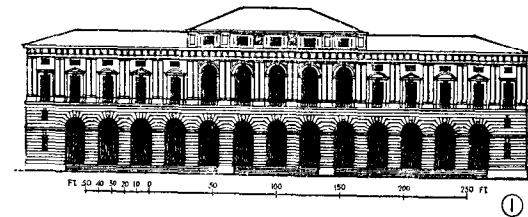


FIG. 36

1. The Gran Guardia, Verona, by Curtoni, pupil of San Michele.
2. The Russian Commercial and Industrial Bank, St. Petersburg, c. 1900. School of Ludwig Hoffman. The later building is modelled on the earlier. The ground-floor arcades are approximately the same height.

work. But, when that undignified manœuvre is accomplished, or surroundings render it unnecessary, then behold the splendour of realized size.

5. *Maintenance of Scale*

Medieval buildings of the middle periods, for all their individuality, inventiveness, and almost personal idiosyncrasy, were

generally speaking intensely systematic in their architecture. Whether one regards the external unit as a two-foot rule or a six-foot man, the builders seem always to have kept very conscious of it. In these buildings—setting aside the miniature decorative architecture of canopy work where the scale of parts was from about one-tenth to one-twentieth of the normal—the scale varied very little throughout the elements of the fabric, no matter how large or how complex; and only within a range of about one to two

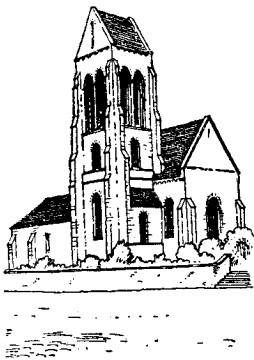


FIG. 37.

FIG. 37. Early French Gothic tower, designed without artifice for scale.

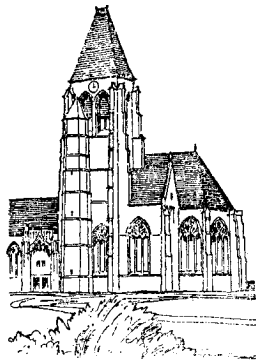


FIG. 38.

FIG. 38. Late French Gothic tower made to look taller than it is by the artifice of horizontal subdivision.

as between very small and very large buildings. The primary mullions of the main windows of the Wayside Chapel of Houghton-le-Dale, Norfolk, are 1 ft. 9 $\frac{3}{4}$ in. centre to centre, those of the east window at Heckington, Lincolnshire (a fair-sized church) 2 ft. 6 in. centre to centre, and those of the great west window at Guisborough Abbey 3 ft. 6 in. centre to centre.

There was more latitude of scale in English thirteenth-century work than in these later examples; and, generally speaking, more in French, German, and Spanish work than in English; but the fact remains that the four- or five-century long Western European tradition, which has to its credit the most amazing realizations of size as an element of architectural impression, achieved its effects with, or perhaps because of, a very limited repertory in the matter of scale. While it is true the medieval architect treated members and ornaments occurring high up broadly, yet the intention was to have

them look not very different from those near to the eye. The big thing was made up of much the same fabric as the little thing: the spire had very pronouncedly more crockets, but only slightly bigger crockets, than the pinnacle. In Gothic art, man does not ape the work of giants—not even when mighty fortresses against the Infidel are the matter in hand. There is more range of scale in medieval decorative figure sculpture than in medieval architecture. Yet the Devil of Notre Dame (a restoration which there is no reason to



FIG. 39.

FIG. 39. This fourteenth-century tower gives full impression of size without recourse to trickwork.



FIG. 40.

FIG. 40. The short belfry windows contrast with the height of wall below, which is accentuated by the horizontal subdivisions.

suppose differs from the original in this particular) is about life size; the Christ between the doorways of Amiens is not twice life size; the figures flanking cathedral doorways are usually about 8 ft. high; the David high aloft at Rheims measures nearly 13 ft. head to toe; and minor exterior decorative sculpture is rarely less than a quarter life size.

These are matters which North American medievalists would have done well to ponder. Their habitual lapses in matters of scale proclaim an ignorance of basic principle engendered by a knowledge of another method which, though 'a very good way too', is unfortunately not compatible with the Gothic system.

In medieval tower design the minor detail often becomes simpler and coarser as one goes up, while the major detail tends to become stronger and crisper as one comes down. Thus, while buttresses

and openings decrease in force, stage by stage upwards, the finials, crockets, and mouldings increase slightly in size and simplification so as to remain legible.

Taken by and large, the Gothic architects may be said to have maintained scale in a general way throughout all their operations with a persistence unknown to other traditions. In the later phases of Gothic architecture, and especially in England, there was a positive obsession for what may be called scale-giving tricks. The overlaying of wall surfaces with panel units was the most common device.

6. *Interaction of Scale and Proportion*

It may here be observed that the interaction of scale and proportion is manifest in all highly developed architectural systems. When reviewing optics, it was observed that proportional contrasts tended to the enhancement of the characteristics of the contrasting elements. An element may thus be made to look proportionally taller and therefore bigger than it otherwise would or actually is, and vice versa. That is to say, proportion may often have an influence on matters of relative size. Scale and proportion are often, perhaps always, interdependent to some extent. Whether the artist be scale-conscious or proportion-conscious, he must to some extent use proportion to serve scale. These two things cannot be defined in terms of one another. If scale can be regarded as the product of proportion, yet proportion must often be the servant of scale—the case of a mother combing her daughter's hair.

Some remarks may here be hazarded as to the respects in which the Greeks were sensitive to scale—they who, by the accidents of history imposed their proportions on thirty generations of designers. That they would consciously have attempted anything so unreasonable is hardly to be supposed. In matters of scale they taught their successors nothing.

Greek monumental architecture was chiefly generated in the building of temples of several distinct sizes. Of the secular architecture we know little, but may assume that widely spaced columns and wood entablatures were its common ingredients. One need hardly consider the very great temples of the class from 160 ft. to nearly 200 ft. wide and sometimes about 400 ft. long, for these (mostly Ionian) were few and on the whole rather incongruous, as giants usually are. The characteristic small temple had few parts.

There were often, in Doric examples, two columns between the ends of the walls where in small Ionian temples there would be four in front and rear. The larger temples, usually from 80 ft. to 90 ft. wide and about 200 ft. long, were for the most part based on the same plan as the small temples, but enlarged and elaborated, and were furthermore surrounded with columns. If there were eight in front there would be sixteen or seventeen on the side, and if six in front then twelve or thirteen on the side. Inner porticoes are not unusual and double peristyles are sometimes to be found.

Columns and entablatures of practically similar form may be found in temples of all the sizes built, but the larger temples were not, as just noted, small temples enlarged; they were more complex organisms. The rule of column spacing appears to have been one diameter *plus one cubit* apart for temples of about the size of the Parthenon, and for the smaller ones. That is to say, relatively to their diameters, the columns are spaced farther apart in the small temples, but actually nearer together. If the columns in the small temples were the same number of diameters apart as in the larger, there would not have been enough room to pass freely between them; and if the columns in the larger had been the same number of diameters apart as in the smaller, they would have involved longer, deeper lintels than could conveniently be got. Use and material thus had their say. The extra cubit ensured efficiency.

Doric columns varied greatly in their proportions during the period of evolution, but became nearly standardized in the period of the fully developed Doric tradition. The interesting point is that the Greek architect then adhered to conventional or standardized proportion in some things but not in others. The larger porticoes were not enlarged small porticoes, although their large columns were practically enlarged small columns. Once they had established the size and organization of their designs they relied on conventionalized or standardized elements to maintain the scale inherent in the object.

This they nearly always did, and their success in maintaining scale throughout each of their very simple temple problems is incontestable. But what of their success with scale in designs where problems of greater complexity than mere simple oblong units with low-pitched roofs and one exterior entablature level were concerned?

Admitting that the Doric order in the hands of an ancient Greek

was a far more elastic thing than ever it became in the hands of a Scottish, or German, Greek revivalist, it may be contended that some of these latter-day saints and prophets had a fine sense of scale that would have been justly outraged by the production in their own day of buildings with the glaring faults of scale one finds in the Propylaea and the Erechtheion. In both of these examples, maintenance of proportion, the very instrument the Greeks could rely on for the maintenance of scale in simple cases, has turned against him.

Then what of those aggregations of temples, great and small, which grew in colonies upon the holy places of ancient Greece? Because each was usually endowed with all the unities it does not follow that they are mutually compatible. Greek taste was curiously obtuse as to incompatibility of scale, a matter on which Gothic taste was, if anything, hypersensitive. For all the elaborate writings and drawings on the subject there was no 'ensemble' on the rock of the Acropolis. At Durham or at Mont St. Michel nothing is allowed to detract from the 'ensemble'.

If an ancient Greek architect could come among us to-day he would probably be able to enlighten us considerably on proportion; the more so as he would have the advantage of being free from four centuries of misdirected zeal on that subject; but he would find much to learn about scale from work after his time. The Greek architect, with his ecclesiological interest limited almost entirely to temples either about the size of that of Nike Apteros, or about the size of that of Pallas Athena, building and rebuilding on sacred sites up to Alexandrine times, had little concern or opportunity or interest in problems on other scales. In group design he was a child.

7. *Scale in the Human Figure*

The human figure has been invoked by the proportionists time out of mind and again and again. Let us invoke it as scalists, taking Dr. J. B. S. Haldane's 60-ft. giant as our example. This lusty child of the professor's imagination was born to elucidate the functional significance of size. He was assumed to be made of ordinary flesh, blood, bone, and fibre, and to be the shape of an ordinary man. Then it was proved of him that he would collapse if he moved; his weight would be measured in tons. It would be interesting, still assuming that he was of ordinary flesh, blood, bone, and fibre, all of high quality, to find out what shape his legs and arms and

several parts would have to be so as to enable him to show some activity without bending, bulging, and collapsing. Or better still, assuming that he was the shape of an ordinary man, to find out what his bones and muscles would have to be made of. Size, material, and form are interrelated matters and normally form is a resultant. When form is constant, irrespective of size, the material requires modification out of respect to size.

A 60-ft. man, at a certain distance, in certain surroundings, and under certain illumination, might be mistaken for an ordinary 6-ft. man. But if he wore a well-fitted kilt, woven in a tartan of the ordinary size, either the cloth would look miniature or the man would look the 60 ft. he was. Scale would be given to him by the introduction of an exterior element of known size.

8. *Limits of Size*

In design every structural system has its upper and lower limits of application, and the classic orders are no exception. It happens, however, that they have never yet been attempted on a scale which endangered a stone column by crushing from its own weight. Orders of moderate size, however, have been loaded in American construction above this point through the artifice of steel cores in the shafts and steel beams in the entablatures, a matter more interesting in reference to proportion than with respect to scale.

In the post-hellenic classic systems the scale varies with the size of the order, independently of the size of the elements of the building or of the building as a whole; such sizes are, of course, determined by use. The virtue of these admirable conventional systems is that they provide in themselves a scale ever consistent with the members, but relatively less when used in large than in small buildings. Impression of size, when orders are used, is largely dependent on the introduction of the human scale for comparative purposes related to selected parts. This is a more complicated device than the medieval one of approximately fixed units.

Each system has its advantages and its appropriate occasions; and they are not wholly incompatible in combination. In modern architecture these systems are rarely used purely and apart, for we moderns are the heirs to all the ages, even when we most persistently acknowledge only some one branch of our cultural ancestry.

Now design, as an art, without reference to scale is almost unthinkable. Things may be designed with reference to size only—

to tell their own story. But design, as an art, usually makes things tell a good deal more than their own story by adding comment as to how the designer feels, and wants others to feel about them. Be the designed object great or small, its size is one of the most

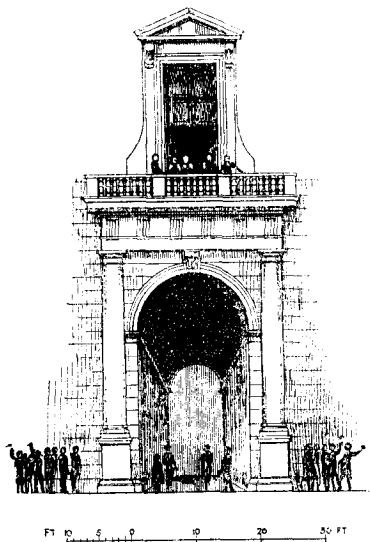


FIG. 41. This archway and conventional order, conceived to convey gigantic impression, would give no sense of the actual size without the human scale balustrade. (The persons indicated on the drawing further help the impression.)

elemental things about it that impresses the artist. This he realizes through the artifices of scale, both for himself and for his public.

After all that has been said above, it may be well to repeat that there is some latitude in determining the fundamental scale of a design; here right and wrong have their limits only in what is reasonable and practical; but once the fundamental scale is established there is a very definite right and wrong with respect to the sizes of all parts and minor elaborations, whether the design be redolent of tradition, or brought down out of the blue.