

# JOURNAL

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PERUGIA  
DRYPOINT BY SAMUEL CHAMBERLAIN

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## FONTS, FOUNTAINS AND WELL-HEADS

By ALFRED MANSFIELD BROOKS

**W**ATER is the first essential of the good life. It means cleanliness and that is next to godliness. It is the emblem of purity and, from John the Baptist, it has been the symbol of regeneration. No wonder that its service has enlisted the greatest geniuses of art, who adorned the issues of conduits and aqueducts, containers for baptismal waters, guardian rims of wells.

Contrary to the custom of saving the best to the last, we will begin with the best, the bronze font in the baptistry of the church of St. Barthélemy at Liege. It belongs to the dawn of the twelfth century. It was cast by one Lambert of Dinant, name from which derives the word dinanderie, famous fabrications of chased and cast metal. Its structural design is of remarkable simplicity. It is a triple thing. First, a plain, circular foundation-plinth gives absolute security, and provides footing for the second part, the circular frieze of oxen. These gently powerful creatures carry the third part, the great bowl. This is footed and capped with mouldings profiled in a manner not inferior to the best Greek, and between which mouldings there is a garland of figures in relief, of a loveliness unsurpassed although not infrequently equaled in all Gothic work. The ministering angels that stretch forward with dry cloths can scarcely wait for Christ to come out of the water. They have the intensity of children on tip-toe with expectation. But no haste mars the dignity of John's slow gentleness as he lays his hand on Christ's head. Beauty of form and of significance is equally explicit in angel and in saint. Then, as a stop, as something to mark the bounds of this baptism, the tree bearing much fruit—the pendant stop,

another tree, shows on the left and just behind the figure of the Baptist—introduces a new subject, Peter baptising Cornelius. Not less in his rendering of this subject has the artist succeeded in stamping that sense of utter absorption in the blessed office which erases thought and memory alike of mundane things. Herein lies the secret of the transcendental character of Gothic art, wholly without respect to purpose, size or medium—the clasp of a bishop's cope, the spire of a cathedral, glass of a window, gold of a chalice, paint and vellum of a mass-book—in a word, the mood of exaltation has been transmuted into a symbol which is a rhythmic pattern of fair and subtle, proud and perfect lines that, through the eye, melt the heart; lines combined into such naturalness of recognizable forms as make present meaning plain through known appearances, and give hint of the cause behind such appearances. Look how and where you will at these encircling scenes, their figures move and remain quiet. They are part of the great, round bowl, and they are apart from it. They lean singly, and in groups about unalterable centers of interest. They come forward, but do not advance. They embody the essence of reality, but remain untainted by the least touch of falsely successful rivalry of nature. The total result is the same as that which always comes when "noble thought is caught up into style," equal nobility of subject and manipulation. Sublimity is ever the last seal set on such perfection. Of necessity it eludes exposition, because exposition pertains to the sensuous, and relies for its understanding in every final reaction, upon feeling. The Liege font is an instance of the unheard, unseen melodies which are sweeter than the seen.



FONT, CHURCH OF ST. BARTHÉLEMY, LIEGE

As unlike the Liege font as possible is that of Pisa, dating from the middle of the thirteenth century. The former, though architecturally conceived, is, strictly speaking, a work of sculpture in the same way that a fine capitol, though primarily sculptural, must be architecturally conceived. But the Pisan font is strictly architectural in that it is a built-up mass of form relations the purposes of which merge in common beauty. Every structural part, and every decorative detail, whether carved marble or mosaic inlay, is placed with infinite respect to contrast, dark against light, color against color, one pattern set off by another, fretted alongside plain, reliefs by flat surfaces. With delicately profiled mouldings, rosettes in circular frames, circular frames in squares, twin-squares joined by mouldings common to both and separated by the same, every touch sharp and lovely, the whole supremely severe and supremely beautiful, this font of Pisa is one of the finest things in existence. Perhaps the most striking fact about it is its apparent immunity from the ravages of age and the wear of time. It might have been made yesterday, but a glance tells one that it was not. This freshness, crispness is perhaps a better word, is not due to skilful restoration, though restoring has been practised on it. Rather is its effect of perennial youth due to purity of design expressed in the purity of bright, clear color and hard materials; such purity and color as the kaleidoscope shows. The thing is kaleidoscopic, a kaleidoscopic moment rendered permanent.

The last of our fonts is in the baptistery of Siena. It is of the early fifteenth century. It is of the Renaissance while the spirit of invention was still active, and sophistication had not forced all things into the mold of pedantry. It is not a work of art, free as air, like the font of Liege. It is not crisp like Pisa. It has not the architectural quality of either of these. Regarded as a whole it is not simple, not direct, like the former, nor geometric, like the latter. But it is splendid without taint of ostentation, although the tabernacle which, properly speaking, is no part of it, is as foolish in its makeup as it is fine in its execution, a strange construction of bastard classicism notably calculated for the display of sculptured figures.

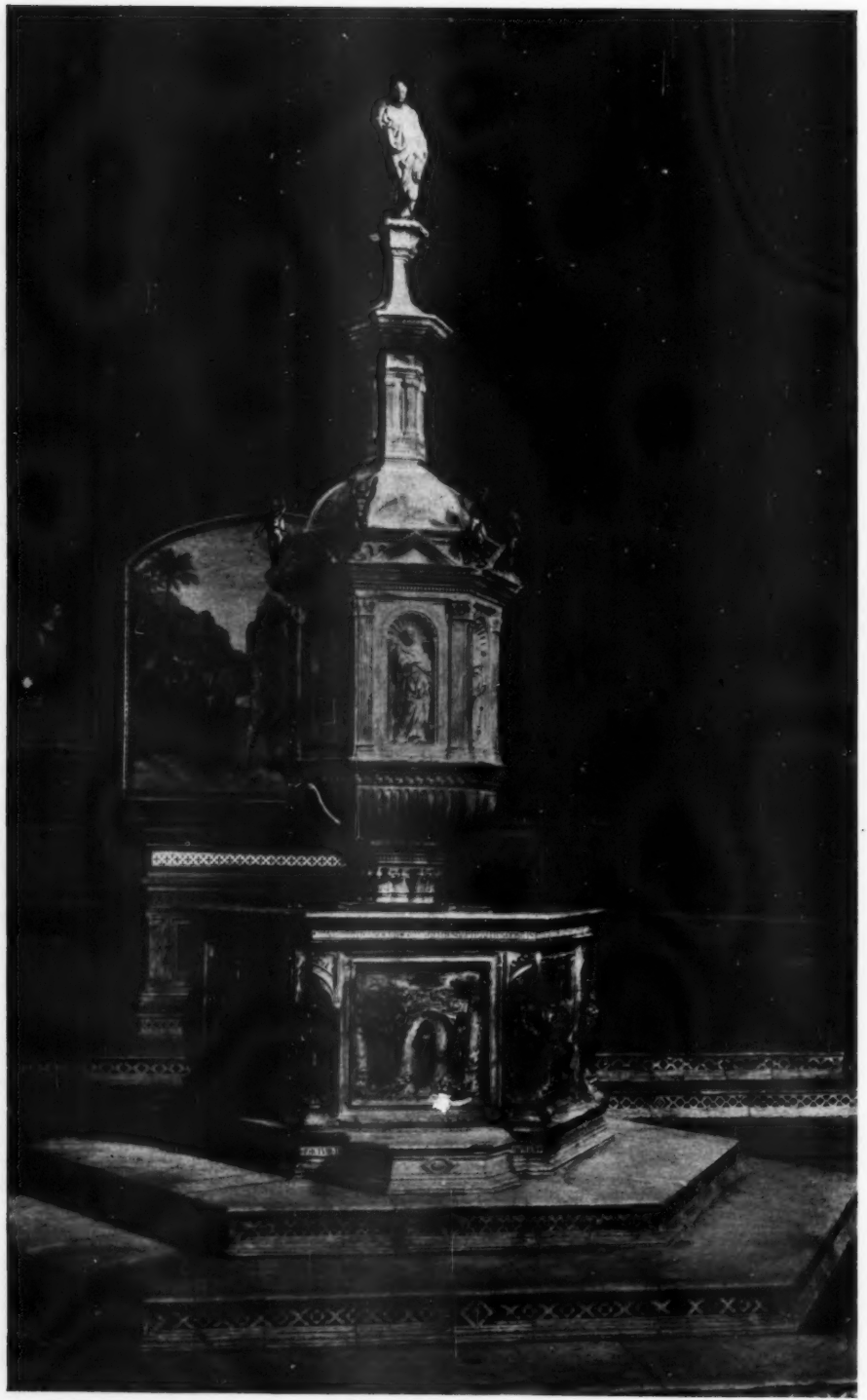
In plan this font and its stylobate are one with that of Pisa. But the relationship of the three steps to the low tri-part wall, the font itself, is more harmonious in the latter which repeats the triple idea, than in this of Siena which starts with a dual foundation, becomes triple in the font-wall and then loses all sense of repeat, an attribute as essential to the poetry of architecture as to the poetry of words. Jacopo della Quercia designed this thing. Ghiberti, Donatello and others joined him in making the sculptures for it. These are of the finest, but they conceal that which they decorate. In other words, all parts do not work together for the common good of the whole or, to put it in another way, something built up, architectural, has been robbed of its character as such



FONT, BAPTISTERY OF PISA

and made little more than an easel, or frame-work on which to display more or less unrelated though very beautiful works of art. The thing does not make a unified and vivid impression at first glance, or ever, despite the fact that examination of its parts reveals wonder on wonder. For example, the standing figures at the angles, each fine in itself, are, in their angle-destroying niches, confusing and weakening to the effect of the whole.

At the foot of the steepest cliff in steep Siena, above which looms the giant pile of San Domenico, nestles Fonte Branda. It has, or is, a brick façade composed of three sets of pointed arches, pairs, one over another but not concentric. Under and behind these arches, cut into the foot of the precipice, is the ample, oblong, thirteenth-century vaulted pool into which the clear, cold water

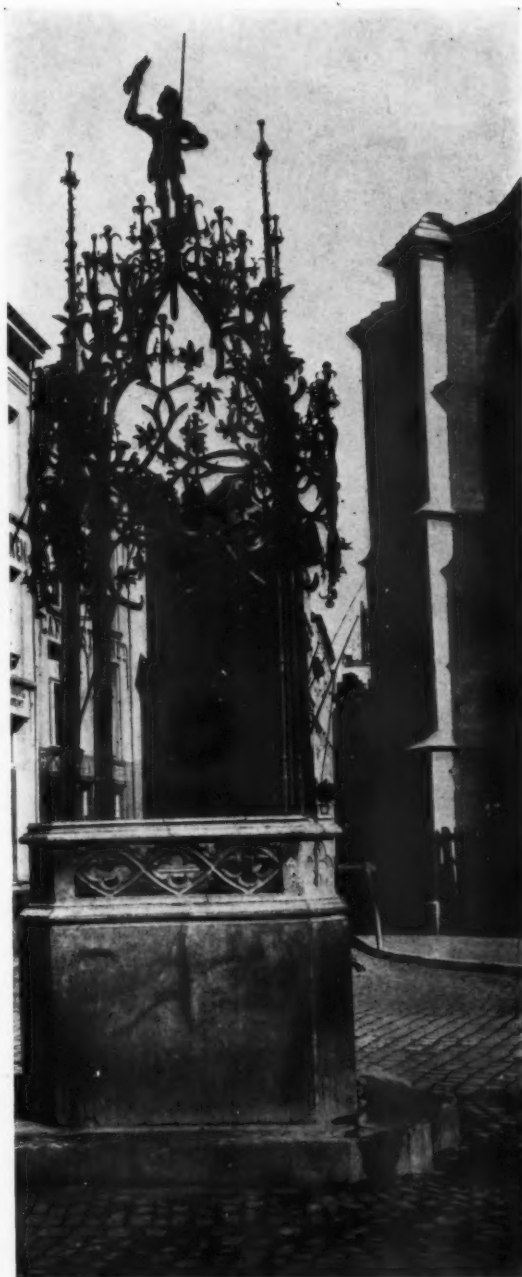


FONT, BAPTISTRY OF SIENA



gushes and gurgles, where it becomes quiet, out from which it flows away. Austere in every line, a structure to be thought of as mass only, it looks to be, and is, a mighty retaining buttress at the base of the declivity. A sufficient protection against imminent landslip, and an inviting and convenient place for the townsfolk to draw water under perpetual shadow. A work of essential and successfully conceived utility, its well-proportioned masses, lighter piers in the middle, heavier at the ends, deep reveals, dark shade and sunbright surfaces, Fonte Branda is imbued with the spirit of elemental things. No wonder it came to Dante's mind when he used it in telling of Master Adam the counterfeiter, suffering the torments of thirst in hell. "If I could see the miserable soul of Allesandro"—the man who induced him to turn counterfeiter—says Master Adam, "in this place, I would not exchange the sight for Fonte Branda." These words are as rugged, as humanly elemental as the design and structure of the fountain from which they derive their meaning, and on which they have conferred everlasting fame.

From Fonte Branda to the great fountain in the public square of Perugia is a far cry, architecturally speaking. It is from the utmost bleak to the urbane. From simple to complex. From harsh to extremely beautiful. But throughout its design it retains that saving architectural serenity which makes plain the reason for every part, and proclaims the service to which the whole is dedicated. Rising from a foundation of generous, circular steps it builds upwards by two, many-sided, polygonal basins and is completed, higher still, in an ample, circular basin raised aloft on a pedestal. There is a compelling fascination in the way Arnolfo di Cambio, its designer, has begun and ended with a circle and, as intermediary, bestowed upon his chosen, polygonal elements an amount and kind of ornament, work of the Pisani, which seems to say: 'I will make the polygon, approach to the circle, perfect, even as the circle.' But he could not, so he made it incredibly beautiful and then returned to the full circle for the crown and completion of his work. The lower basin with its bas-reliefs in pairs, each pair a side of the polygon, set apart by grouped, triple columns, the pairs themselves divided by single, fluted shafts, all engaged, is a miracle of sturdy grace. Within, and of lesser diameter, lifted upon free-standing shafts, the second polygonal basin, its angles emphasized by human figures, its sides plain slabs, is a perfect transposition, as it were, into another key of the design below. Rhythm like a vitalizing force runs through and through the whole, knitting the parts inseparably together and preserving the integrity of all. As a matter of pure design we here see the font of Pisa lifted above itself, a thing of which the Siense font fails utterly. The Perugian fountain declares the fact that passion for beauty and passion for reason can mount to incredible heights *pari passu*. In superlative work they always do.

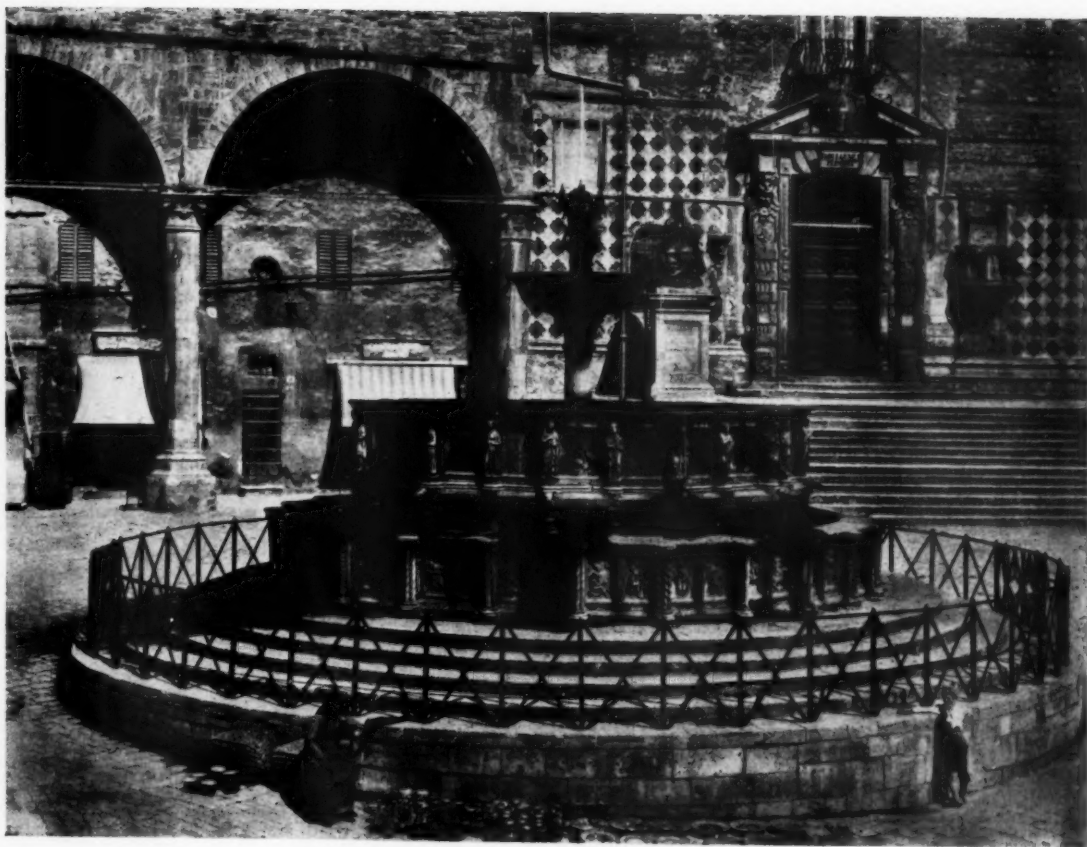


WELL-HEAD BY QUENTIN MATSYS, ANTWERP

To deny beauty to that great pile of theatric charm and crass unreason, the finest fountain in Rome, and one of the finest in Italy, Trevi, is to announce artistic bigotry. As one star differs from another, so one beauty differs



FONTE BRANDA, SIENA



GREAT FOUNTAIN, PUBLIC SQUARE, PERUGIA



FOUNTAIN OF TREVI, ROME



WELL-HEAD, COURT OF THE DUCAL PALACE, VENICE

from another. Because a design is pompous it is not necessarily unbeautiful. Neither is it unlovely because it is vast, bombastic, affected in details, or crude in craftsmanship, all of which Fontana di Trevi is. But it is so in the same way that stage settings are so, not meant to be looked at near to or minutely, but to be viewed for general effect and from a distance. The question is, "Is the end accomplished which was intended?" To that question, asked of Trevi, the answer is, "Yes."

Stage properties it has in superabundance. Fine ones they are too. The front of the Poli Palace provides a dignified and sumptuous back scene with its vast and motley array of classic Roman details seen through and distorted by the eyes of the very late Renaissance. Then the *mise en scene*—Neptune muscled like a stoker, and of patriarchal dignity, his horses cavorting and winged; to right and left simpering figures of Health and Fertility; finally, the mock heroics of the foreground precipice, rocks distorted beyond the utmost way of nature. Over and under all, the cascade and foam of the Aqua Virgo, pouring as cool, and fresh, and plentiful from Agrippa's conduit as in Agrippa's day, drenching the rocks, and calm in the basin below where boys dive for fools' pennies still. It is a mistake to think that the eighteenth century added nothing of artistic note to the Eternal City. But how unlike the Perugian fountain and Fonte Branda it all is!

Two well-heads and we are done for the present with art's provision for water, holy and secular. A well-head is a rim built around a well-hole for protection. The stone-wall of the Antwerp well, in nowise remarkable, is surmounted by an open-work canopy of wrought iron supreme in its kind. Tradition says that its maker, Quen-

tin Matsys, the painter, was a blacksmith who gave up smithing for painting, in order to propitiate his would-be father-in-law. Be this as it may, it is much to be doubted if ever, as painter, he designed and carried out any work so nearly perfect as this iron canopy. Though fancy is free as a bird, order rules throughout this wilful, lovely tangle of intertwining stems, waving tendrils, masses of flower, bud and leaf. As one looks up from this minute, openwork spire of strong-braced and banded iron, its endless detail sharply silhouetted against the sky, to the "divine spire" of the cathedral close by, he wonders which after all is the greater work of art. But in each he sees the imprisoned soul of Gothic, the transcendental yearning to pierce, not scientifically but mystically, beyond the realm of things sensuous, and to be known through the intellect alone.

Of the same sixteenth century as the Antwerp well-head, is the bronze well-head in the cortile of the Ducal Palace at Venice. It is typical of the Italian Renaissance, the chief end of which was to explore reality, and to enjoy the world of the senses. It is a wonder of bronze casting technically considered. It is an object finely shaped and beautifully balanced in point of proportion, not so overlaid with ornament as to wholly hide its form, yet deluged with a confusion of ornament which, per se, means little or nothing. For a similar thing in which the ornament is superbly significant as ornament, yet almost aggressively subservient to the shape of that which it adorns, look back to the Liege font. But in each we must be sure to see the age that gave it birth, for it is there plainly to be seen—the secret reason for its existence. Elegant and worldly in one, lovely and of the spirit in the other, yet, in each, beautiful after its own kind.



## PANACEA or POISON?

By HARRY F. CUNNINGHAM

FOUR hundred thirty-six years ago Columbus discovered America. Later, various and sundry people came along and settled it. Now THE JOURNAL of the American Institute of Architects sets out blithely, in the face of unfriendly winds, and discovers—"Modernism." And various and sundry people have come along and "settled" it.

In the September number, Doctor Cram deploras, rightly enough, the most distressing manifestation of the "movement" that has so far come to pass. In the same issue Mr. Hewlett, from the topmost rung of his philosophical ladder, with paint brush in one hand and white-wash brush in the other, theorizes most beautifully—as is his habit. And Mr. Horace Mann tells about the joyful cube and its enjoyment of gravitation, the delicate little bands clinging to it (the joyful cube) with the "grim determination of the rings of Saturn," all in the regular jargon of the properly initiated.

Mr. Moran's paper reminds one of a story that appeared in the *Saturday Evening Post* some twenty years ago under the title "Nothing Mumbles but Bricks." It also recalls somewhat, the XIVth chapter of Norman Douglas' "South Wind," wherein is set forth in detail the history of a certain Russian monk and his society of the "Little White Cows." And that would settle Mr. Moran for us, were it not for the fact that a large number of persons not members of the American Institute of Architects (not yet) do persistently talk about—and apparently believe—"the joy of restlessness, of sudden startling things, of cubes and piercing shafts, of impossible plant growths, and human form distorted by some pathological condition." "How original," chortles Mr. Moran—and thousands say "Amen"—"how centrifugal, how thrilling, the tangent, how dynamic!" Truly, nothing mumbles but bricks! And Red is alluring!

Just the other day an "Interior Decorating Lady," who was properly introduced, brought a young German architect to see me. He showed me some of his designs (?) in which hopeful triangles chased joyful cubes about over an expanse of once-white paper. I had the temerity to ask the young German if he would tell me somewhat of the processes by which his startling results were reached. He looked hurt and said, "He is difficult to explain—there are so many Mathematic." I understood, I am afraid. I wonder if he did.

Agreeing most fully with Doctor Cram's expressions concerning the poisonous things that are temporarily spoiling the fair land of France, I nevertheless object to his calling them the "Arts of France." Many of them

are not even signed by names that have the true Gallic ring. They are perhaps—if we are generous—the "Arts" of certain Frenchmen. But there is nothing of France about them. The centuries of progressive culture that have made France the kindest country, and the French the most delightful people in the world, had nothing to do with these "impossible plant growths" or these "distorted forms." And France will recover from these things, just as she has always recovered from everything—even the exaggerated Democracy of '93—that was un-French, un-cultivated, uncouth.

But the Doctor believes that America is not endangered by the overseas poison. I am not so sure about that. In fact I am very fearful that American Art faces right now the gravest danger it has ever confronted. We are perhaps the most educated—and we are surely the least cultivated—people in the world today. These things "take" on a veneer of education. But they cannot pierce a protective coating of culture. We have the veneer. But our protective coating—that takes centuries to achieve—is not yet complete.

To me it is significant that the "Moderns" are all young men. We of the "Old School"—that safe and sane generation in which I plant my toe alongside the heel of the good Doctor—are not "Modern." But our sons and their senior friends are very much so. Therein lies the danger to our art, for the future of our art is in the heads, hearts and hands of these youthful enthusiasts. Doctor Cram and Mr. Hewlett, successful artists whose distinguished achievements have raised them to that high Olympian plane to which youth does not attain, and whose contacts with that youth are few and not very intimate, may be inclined somewhat to look backward a bit, while youth is looking forward (or perhaps sidewise), and say as does the Doctor, that "our Architecture has been engendered, fostered and made operative by the American Institute of Architects and our own schools of architecture—" and is therefore safe.

But I, being neither fish nor fowl, with no distinguished background and a future that promises little beside countless efforts to do things that will always turn out just a little short of the dreams that breed them, cannot aspire to that high Olympian plane, and am forced (gladly enough) to remain on the ground where the feet of youth run joyfully about. I bump shoulders and rub elbows with young men every day. I know what they are thinking, these gay young men who will make our future art, and I see what they do when they think nobody is looking. The half dozen most brilliant young artists I know, boast that they are "Moderns." One of

them recently graduated from one of "our own schools of architecture" and he tells me that in his class, that issue of *l'Illustration* which pictures the Paris Exposition of 1925 in all its weird details, was the "Class Bible," and he tells me further that projets inspired by influences outside that "Bible" received no serious consideration in the judgments. Did Doctor Cram see the designs submitted in a recent Fontainebleau Competition, that were exhibited at the last Convention of the Institute?

I believe that the danger in our own country is greater than anywhere else in the world, because (partly and perhaps principally) of the fact that too many "Verboten" signs have lately been plastered upon the pages of the books of national, state and city laws. A general disregard for laws, whether they concern ethics, conduct or art, has grown up among us—and principally among our young men. Youth hates the "Verboten" idea, because youth is youth—and very human—and because it loves to do that which it apparently shouldn't do, just to see what might happen. Youth loves to experiment, and youth dislikes to spend the time necessary to gain a *thorough knowledge* of anything. Youth is no longer encouraged to add *cultivation* to that *education* which its father buys for it in standard, labeled packages. Such a large proportion of the world's youth lived so close to infinite vulgarity a few years ago, when all the world was willing to make war, that youth has come to relish the vulgar, the risqué. Many of the expressions of "Modernism" are essentially vulgar. The ultra-Puritan wave of legislated "Purity" that has lately engulfed us, urges youth toward a relish for vulgarity.

Of course, youth grows up and frequently youth recovers unhurt, from the minor ills that threaten it periodically during its growth. But is this a minor ill? Or is it a major malady? I personally believe that it is the latter, but I believe also that Doctor Cram has nearly hit upon the cure—or the antidote—when he suggests that the young Architect should go as far as he can "in a good American School of Architecture, then cross to Paris for a brief course of study in Notre Dame, the Louvre, the Trocadero, the Cluny and the Place des Vosges, with some regard to the last of the great modern buildings such as the Gare d'Orsay and the Petit Palais, and then to quit Paris and finish the course of study by anything up to a year's travel through the myriad examples of real Architecture, France still has to show as the record of a thousand years of great and varied culture—England, Spain, Italy, Flanders, the Rhineland as well." The only change I would offer in the above prescription is that for the "good American school of Architecture" I would substitute "one of the half dozen good architectural offices in America," and I would increase the list of buildings specifically mentioned

to include such marvels as Mont Saint Michel, Chartres, Notre Dame du Port, Albi Cathedral, the Palais des Papes at Avignon, a certain pre-war German Church in Coblenz, several pre-war department stores in Strasbourg, and so on.

And while this was going on I would hope that he might read William Morris, Louis Sullivan's "Autobiography of an Idea," Kingsley Porter's "Beyond Architecture," certain of Doctor Cram's own books, all of Professor Lethaby's books, Havelock Ellis' "Dance of Life," "Alice in Wonderland," "Through the Looking Glass" and James Branch Cabell's "Jurgen." Finally I would urge him to go to West Street in lower Manhattan and look at the great building between Barclay and Vesey streets—the spirit of America's Age of Electricity and Big Business. I would take him to Kansas City and show him a great shaft on a hilltop, with a simple little cubicle at either side of the shaft—a monument to that vanished dream called "Liberty"; and I would *drag him*, if that were the only way to get him there, out to the Nebraska plains and let him discover a great Capitol building there—the Monument to Genius. Then I would tell him—if he would listen (which youth, alas, will not always do)—that these are the only MODERN art expressions I know of. And I would pray—if I might have learned by that time how to do it—that he might have sensed somewhat the fair adventure that awaits one who sets out on the "Splendid Wayfaring" that led three great artists and their collaborators to create those three *real MODERN ART* expressions. For the young artist who takes this prescription I should not fear the poison that looks like a panacea.

And by way of "Epilogue," let us remind ourselves that the "style" characterized by the efforts of the joyful jig-saw and called after Victoria, was "Modern" in its day. And countless other "styles" have, each in its day, been "Modern." And we look back at those days and laugh. Savages—very primitive, backward savages with no culture and not even any education—use cubes and triangles. And children play with squares and triangles and cubes. But children grow into men and men put away childish things. It is difficult indeed to do simple things beautifully, and genius alone can do them so. But it is easy to do childish things that affront all canons of good taste, which latter, by the way, do not have to be learned, felt or recognized if one is to be "Modern." And it is pitifully easy to mystify a gullible public eager for the eccentric, by making the childish thing *sound* intellectual. The professional "Moderns" have studied Barnum's philosophy and apply it practically—to their great material advantage. But that philosophy—like all others—has its loopholes. Or are they moth holes?



# THE GREEK AND ROMAN WORLD CITIES

By NILS HAMMARSTRAND

TO us who live in an age of mushroom cities there is a particular fascination in the "magic" rise and rapid development of various great cities in the Graeco-Roman world. In important respects these urban upstarts were not essentially different from those of the present age. Such cities as Rome, Alexandria in Egypt, Antioch in Syria, Constantinople, and many others, afforded contrasts of building luxury and of slum conditions very much resembling those of our present-day world cities.

Thus, Suetonius, in his "Lives of the Caesars," gave only one side of the picture in writing that Augustus could justly boast that he had found a city built of brick and left one of marble. Such a rhetorical phrase does not help us in forming an idea either of the Rome that Augustus found or of the Rome that he left. We know, however, that Augustus did much towards improving the conditions of the city, not only by erecting magnificent and spectacular public buildings, but also by promulgating restrictive building laws which, even if they did not effect much improvement, nevertheless testify to the good will of the Emperor. It was not the task of one man to remodel that city, not even the task of so powerful a man as Augustus. For, even though he had wished, he could not really change those fundamental conditions, political, economic and social, which made Rome what it was, a veritable cancer on the organism of the Roman Empire.

Indeed, as an over-populated city, ancient Rome was a phenomenon so much more distressing than our world cities today that it is difficult for us fully to realize its terrible condition. If we deprived a city like New York of a very substantial part of its industry and trade, without reducing its population, there would arise in that city conditions resembling those of ancient Rome. And, of course, all of the United States would have to carry the burden of such a condition, just as all of the Roman Empire had to carry the burden imposed on it by the city of Rome.

Rome was par excellence the city of chronic unemployment. There was a grotesque misproportion between the number of its inhabitants and the opportunities it afforded for making a living by honest means. Nevertheless, the streams of humanity continued for centuries to converge to Rome from all parts of the Empire. If its growth was very rapid in the period from the end of the Hannibalic war to the time of Julius Caesar, it was even more rapid in the period from Julius Caesar to Nero.

The world has never witnessed an equal spectacle of a city growing by leaps and bounds mainly because it was a great political center. The nearest approach to

it, in modern times, seems to be the growth of the city of Paris in the 17th and 18th centuries. But Paris probably played a greater productive rôle in the economic life of France during those centuries than Rome did in the economic life of the Roman Empire.

Rome had its harbor cities, its merchants and workshops, but as a productive center it was not comparable with, for example, Alexandria in Egypt, the rapid increase of whose population was a natural consequence of the long-continued expansion of its flourishing industry and trade.

But Rome, besides being the great political capital of the Roman Empire, was paramount also in another respect, namely, as a center of economic speculation. And in one particular form of economic speculation, Rome probably surpassed all the other cities of the Empire, except perhaps Constantinople, namely, in the speculation in real estate.

Unbridled real estate speculation may be considered as the most potent influence in aggravating the bad housing conditions of our great cities. No doubt it was so also in ancient Rome, as well as in the other great cities of the Graeco-Roman world. Was there ever a modern speculator in urban land quite equal to Marcus Licinius Crassus, the general and triumvir? When Plutarch says of this arch-speculator that the greatest part of Rome, at one time or another, came into his hands, it is not difficult to understand what he meant. There are in Roman or Greek literature few passages so graphically descriptive of the conditions under review as those introductory observations of Plutarch in his sketch of Crassus. Plutarch, in explaining how Crassus laid the foundation of his fabulous wealth, says that his fortune, before he went on his Parthian expedition, increased from 300 to 7,100 talents, most of which he got by fire and rapine, making opportunities of the public calamities. And then Plutarch sets forth that the bad construction of the houses, their excessive height and their standing close together caused frequent fires and the falling down of houses, circumstances of which Crassus took advantage. When fires broke out, he bought houses that were ablaze and also the threatened houses in the neighborhood, whose proprietors were willing to part with them for little or nothing.

In more than one respect this is very instructive, for it gives us an insight into the housing conditions of ancient Rome. But especially interesting is Plutarch's statement that Crassus never built anything except his own house. He speculated in the unearned increment of land values, but was not a speculative builder. The risks of speculative building were much greater in ancient Rome than in the modern cities, and they did not appeal to him.

On the other hand, in a great and extensive city such as Rome, where various factors concurred in increasing the land values, land speculation was almost risk-free and highly lucrative.

With regard to the extensive land speculation in ancient Rome we have other contemporaneous evidence. Cicero, although himself a great house-owner and as such a natural enemy of those who clamored for rent remittals, seems to have been alive to the evil consequences of the excessive exploitation of land in ancient Rome. He was critical of the social and economic iniquity inherent in the conditions.

Largely owing to the boosting of the land values by speculation, land in the Rome of Cicero and of Julius Caesar was as expensive as in many great urban centers of today. It did not equal in price the most expensive land of New York, London and Paris, but its value is reflected in the excessive rents which people had to pay for their apartments. Cato the elder, in the earlier half of the second century B. C., testifies to the frequent complaints about rents on the part of the tenants. Henceforward the trouble was chronic—just as it is in the great cities of today.

It is interesting to know that more than 100 million sesterces, equivalent to nearly five million dollars, were paid for the land on which Julius Caesar's Forum was built. The price was more than two million dollars per acre. But five times as much per acre or square foot had to be paid when the tabernae on the north side of the Forum were acquired for its enlargement in the year 54 B. C.

At that date, in the time of Julius Caesar, Rome was to a great extent a city of densely built-up, many storied tenement houses. As early as in the third century B. C. there were three-storied houses in the neighborhood of the Forum boarium. In the course of the second century B. C. the congestion constantly increased and the city began to expand beyond the Servian wall. Gradually the wall was demolished, and in the time of Augustus hardly a trace of it was visible.

Rome was now an open city—and a vast city. Successive extensions of the city limits, the so-called pomerium, took place, according to tradition, under Sulla, Caesar, Augustus, Claudius, Nero, Vespasian and Trajan. The area of the city proper thus reached its maximum in the beginning of the second century.

But it is important to recall that the pomerium, which separated the city proper from the suburbs, also separated the tax-free land from the land that was taxed. In the city proper land was not taxed, which helped to aggravate the congestion in its area. On the other hand, the growth of the suburbs may have been furthered by the law that forbade foreigners to live inside the pomerium, although, of course, this law was frequently violated.

Another factor that helped in increasing the congestion of the central residential quarters was the luxurious beautification of parts of the center by creating extensive

fora and erecting palaces and large public buildings. Great areas that were covered with dwellings had to be expropriated for such purposes, for instance for the buildings on the Palatine, 25 acres; for the imperial fora about 15 acres; for the thermae of Titus about 17 acres. Nero's palace and gardens required the expropriation of 125 acres.

But those who were thus ousted from their living quarters usually did not wish to move from the center. To accommodate them, buildings were increased by additional stories, narrow backyards were built over with rear buildings, apartments and rooms were subdivided; they became ever smaller and occupied by an ever greater number of people.

The overcrowding was thus increased, and the most perceptible effect of the transformations was certainly not that they brought more air and light into the congested quarters, but that they increased the congestion of quarters already overcrowded by reducing the central residential area.

In our time extensive modernizations of old urban centers have sometimes produced a similar effect. The outstanding modern example is the great transformation of Paris that began about 1850 and in which Napoleon III and Haussman played the leading rôles.

Therefore, in city planning of today it is considered axiomatic that the extensive transformation of an old urban center should be accompanied by measures for preventing these evil results. In such instances we have an easier task than the Romans, thanks to our technical resources, our means of communication, and thanks to the rapidity with which outlying areas may be developed to receive a great part of the ousted population.

By analogy, however, we may also conclude that the crowded population of the dilapidated old quarters of Rome had to pay the relatively highest rents for their miserable lodgings. And in the very center of Rome the clamor for rent remittals must have been the loudest. In the year 47 B. C. troops had to storm the barricades of the crazed populace, bent on enforcing its demand for rent remittals by violence. The question of rent remittals became a political issue in the party strife of the dying Republic. Finally all rents of 2,000 sesterces and less were remitted for one year by Julius Caesar, as well as later by Augustus.

Well known are Juvenal's references, in his third satire, to the excessive rents that were paid for small lodgings in Rome. He is not the only Roman author whose testimony can be quoted.

It is evident that there was a chronic housing shortage in Rome of the late Republic and the early Empire, easily explicable in view of the rapid growth of the population and of the frequent extensive fires. From the second century B. C. onward, Roman building legislation, as applicable to the city of Rome, aimed in particular at diminishing the fire hazard. But it was

only in the age of Augustus that an attempt was made to combat the fire hazard by stipulating a definite maximum height for the houses. To effect a real improvement, however, extensive replanning and modernization of the city would have been required. Whole large quarters consisted of six- to seven-storied houses densely built up along narrow and more or less tortuous streets. Very likely individual houses rose higher, even as high as about 100 feet, nine to ten stories. Many, probably most, of these tenements were of a frame construction, combining wood and stone or brick, although there were also other and better constructional methods in use. Wood, no doubt, was extensively used also for interior walls, although forbidden by law. The fire hazard was increased by the very frequent front balconies, the *maeniana*, which usually were of wood and extended out over the narrow streets, darkening them.

In the tenement quarters the sanitary conditions must have left much to be desired. At least in one respect, however, a gradual improvement is to be noted, namely, as regards the water supply. As early as the time of Augustus, to believe Strabo, almost every house was supplied with water by being directly connected with the public water conduits. Strabo's statement may be somewhat exaggerated, yet the general improvement cannot be doubted, and ancient Rome was finally better provided with water than are most of the great cities of today.

On the other hand, Roman building legislation, previous to the great fire under Nero, was singularly devoid of such restrictions as would have counteracted the evil effects of the congestion of population. The only possible exception seems to have been a law of Augustus relative to the height of the houses. Probably, however, this law was framed chiefly with a view to lessening the fire hazard.

The height of houses fronting the streets was limited to 70 feet. New houses exceeding this height would be demolished. No doubt, however, this clause was very little enforced. The falling down of houses owing to flimsy construction was frequent; their enforced demolition because of excessive height was probably very rare, if it occurred at all.

The next height limitation that is known to us was decreed by Nero. He legislated regarding the buildings soon after the ten day fire in July of the year 64, which devastated the greater part of Rome, affecting ten out of its fourteen regions.

Nero fixed the maximum height of the houses at 70 Roman feet and decreed their isolation by forbidding party walls and by stipulating an open space of at least ten feet between them. According to Tacitus, he also decreed that no building lot must be built on over its whole area. Probably a minimum space to be left open was prescribed, although this is not mentioned by Tacitus. Nero's law also contained innovations with regard to the construction of houses. But its most

interesting clause aimed at providing housing for the lower classes of the population. The emperor promised full Roman citizenship to any man possessing Latin rights and a fortune of at least 200,000 sesterces, if he were willing to use at least half of his fortune in building a tenement house. This public intervention, more than anything else, convincingly proves that the housing problem of ancient Rome was similar to that of our great cities.

The devastating fire in the reign of Nero seems to have been the turning point in Rome's history as regards the increase of the population. A new city gradually arose on the ruins of the old one, a city somewhat better laid out, somewhat less congested. The Emperor Vespasian, who did particularly much toward the rebuilding of Rome, also extended its limits, but its population was decreasing. It is very likely a sign of the changed conditions that the Emperor Trajan limited the height of the houses to 60 feet, ten feet less than the previous maximum height. Continued growth of the population would have made this reduction impracticable.

How great was the population of Rome when at its maximum? As a basis for estimates we have chiefly the results of the census under Augustus and the number of people who received doles. These figures permit of an approximate estimate of the size of the free population in the reign of Augustus. But as to the number of slaves we can only guess.

Yet, on the basis of reckoning we have, it seems reasonable to assume that the population of the city proper reached a million in the age of Augustus. It very likely increased by 200,000 to 300,000 in the earlier half of the first century. Thus the urban agglomeration as a whole, city and suburbs, probably had upward of a million and a half inhabitants in the reign of Nero.

The area of the city proper seems at that time to have about corresponded to the area which was enclosed within a wall by the Emperor Aurelian in the later half of the third century. It covered about 3,000 acres, and was probably inhabited by at least one million people, or about 330 people to an acre, on an average. But this area was to a great extent occupied by public buildings, private palaces with their extensive gardens, well-to-do even if not luxurious quarters, streets and other public spaces. Therefore, it is not unreasonable to assume that there were at least about 1000 people to the acre in the most congested quarters. This nearly equals the population density of the most overcrowded blocks of New York's Lower East Side when at its maximum congestion about 30 years ago.

However, owing to those social and economic conditions to which I have referred, the overcrowding of Rome was worse in its effects than that of any modern city. And over the city the threat of famine was always hanging, although the imperial government organized the most elaborate service for supplying the dangerous capital with food. Sometimes the machinery broke

down, and riots resulted. Provisioning was, on the whole, one of the most difficult problems of the cities of the Roman Empire, not only the largest ones. In critical times, serious disturbances owing to food shortage seem to have been frequent in various parts of the Empire.

It is easy to understand why the great cities were in general little liked by the emperors. But long before the era of the emperors the authorities grappled from time to time with the population problem of the city of Rome. As early as in the second century B. C. attempts were made to stem the rising tide of its population.

According to Livy, 12,000 Latins were deported from the city in 187 B. C. A word of a magistrate was sufficient for effecting the removal of Latins or foreigners. Tacitus and Suetonius record the wholesale expulsion of Orientals. Augustus, in a time of great scarcity, Suetonius says, expelled slaves that were for sale, as well as the schools of gladiators, all foreigners with the exception of physicians and teachers, and a part of the household slaves. Even as late as in the year 382, when the population of Rome had dwindled to a few hundred thousand, mass deportation of proletarians was ordered by the Emperor Valentinian.

These violent and necessarily fruitless measures are of less interest than the attempts to colonize the Roman proletariat on a large scale. In the period before Julius Caesar, Tiberius Gracchus was not the only reformer who resorted to land assignments for the purpose of improving the condition of the Roman proletariat. But these measures were not consistently carried out. Besides, their purpose was defeated by the land conditions which prevailed in Italy. The formation of the *latifundia*, of the vast landed estates employing slave labor, was one of the main causes of the rapid increase of the Roman proletariat. Only a very radical land reform could have achieved a lasting improvement.

The premature death of Julius Caesar put an end to his ambitious plans of colonization. No doubt he intended to transplant a part of the Roman proletariat to those colonies which he planned to establish in various parts of the Empire, from Southern Gaul to the area of the Black Sea. Julius Caesar thus aimed at continuing the policy he initiated in sending 80,000 Roman citizens to the sites of Carthage and of Corinth to refund and rebuild those cities. Undoubtedly, there were among these 80,000 Roman citizens many Roman proletarians.

However, the evils of over-population and of bad housing were certainly not confined to the city of Rome. Only, as regards the city of Rome the details of the development are especially well known to us.

The general character of the economic development from the Hellenistic period onward was such as to give rise, necessarily, to undesirable conditions in the great urban centers. The history of the Greek and Roman world cities begins with the up-growth of such cities as Alexandria on the Nile, Antioch on the Orontes and Seleucia on the Tigris. Their rapid rise, it may be said,

was conditioned upon the formation of a numerous proletariat. They were probably less congested than Rome, but had extensive slum quarters of high and densely built-up houses. In Alexandria, as even in the smaller cities of Egypt, apartment houses of several stories were the common type of dwelling in the Hellenistic period. And in Antioch there were vast quarters of four-to five-storied houses.

As regards the height of the houses, however, these cities were surpassed by various Phoenician centers, above all by Carthage, Tyre, Sidon and Motya. The houses of Tyre, according to Strabo, the Greek geographer, were even higher than those of Rome.

But it is ancient Constantinople to which we may truly refer as a precursor of the modern skyscraper city.

When the Emperor Constantine decided to found a new capital of the Empire at the ancient Byzantium, he not only took a step of political and economic importance, but also, in all probability, started the greatest building boom that was ever witnessed in antiquity.

The foundation of Constantinople took place in the year 330. How the city developed in the first 150 years of its existence we may infer from the building laws which were passed after the great fire that devastated it to a great extent in the year 469. It was decreed that houses of a height of 100 feet could be erected anywhere within the urban area, even if they obstructed the view of the sea from adjoining buildings.

A somewhat later law was even more liberal, giving permission to erect houses to any height if a space of 12 feet was left open between the buildings. In fact, this enactment was later codified by the Emperor Justinian, in 531, and then became a general law of the Byzantine Empire.

Zosimus, the Greek historian, who lived in the fifth century, described Constantinople as a densely built-up, congested city. Many of its streets, narrow as a rule, were lined with tall tenement houses, subdivided into small rooms, generally overcrowded. The fire hazard was even greater than in Rome. In Constantinople, as in Rome, the erection of magnificent public buildings and fora required much space and contributed to increasing the congestion of quarters already overcrowded. Building luxury and slum conditions were sharply contrasted. The description of the great earthquake in 557, by the historian Agathias, confirms this impression.

Neither the building legislation nor contemporary descriptions of the city allow any other conclusion than that Constantinople was one of the worst congested cities of antiquity, perhaps even the worst congested among them. Constantinople developed too rapidly without sufficient public control of its growth. Moreover, it was situated on a narrow peninsula. To real estate speculation the city offered very lucrative opportunities. Exorbitant rents were paid for its miserable tenements, and rent remittals occurred in Constantinople, as in Rome.

# OLYMPIC DUST

By HUBERT G. RIPLEY

## II

*Pecuniam equam ire cogit.*—Nancy Hanks.

IT may well be argued that Roman architecture owes its grandeur to its sublime disregard of the many complexities that clutter the practice of the moderns. Due to a saner mode of living than now obtains, the Roman architect never hurried his work. This was true also of the contractors. Troy Brothers were seven years on the marble contract for the reconstruction of the Temple of Castor and Pollux. A sensitiveness as to mere time was foreign to the Italian nature. The day began at sunrise, which of course in winter was several hours later than in summer, and ended, as far as work was concerned, at noon. The hour was one-twelfth of the span between sunrise and sunset, and consequently a constantly varying period.

The lowly arose, as they do to this day, at four o'clock in the morning, while the well-to-do usually went to bed at five. Old Martialis, the epigrammatic poet, whose satirical genius finally cost him the tribuneship, used to complain bitterly about the hazards of the morning nap, what with the children playing knuckle bones on the sun-streaked pavements, the raucous cries of the street vendors, and one thing and another.

At noon everybody quit work and trooped out to the taverns for a cold snack. The bakeshops and wine caves of the Imperial City did a thriving business in spiced sturgeons' roe, cold roast pork, salads, nuts, fruits, light wines and beer, from midday on. The Romans, as a rule, were an abstemious people and after a frugal repast indulged in a short nap. This was followed by a stroll to the Thermae, where hand ball and other games were played. Then came relaxation in the sudatoria and tepidaria, after which the rubbings and anointings in the frigidaria.

No sensible Roman in his right mind would dream of devoting the entire day to work, unless for some unusual press of affairs. Man, according to his idea, was intended by the immortal gods to enjoy life. Work was a necessary fillip and a means to that end.

The serious business of the day was dinner, which began any time after the ninth hour—three o'clock in our language—always lasted until sunset, and frequently was prolonged far into the night. Due to the exigencies of an Imperial Government, and possibly to the psychology of deglutition, politics were rarely discussed at these symposia. Astronomy, mathematics, and the fine arts were favored topics, and a great deal of consideration and playful banter given to the inconsequentialities and lighter trivialities of life. The art of dining was brought

to a high state of perfection by such men as Florus, the historian; Suetonius, the traveler; Pliny the younger; Philo Byblius, the Jewish Plato; Dion, Prusaens, and Plutarch. Younger men like Theon; Phavorinus, the lexicographer; Phlegon of Tralles (who wrote such entertaining treatises on long-lived and wonderful things); Aristides of Smyrna (whose eloquence after the earthquake induced the Emperor M. Aurelius to rebuild the city); Aquila; Salvius Julian; Polycarp; Arrian and Ptolomy Claudius of Pelusium, the astrologer, lent grace to these functions.

On feast days there would be music and dancing by bayaderes and coryphees, in which sometimes the younger men participated, although it was not considered good form, even in the time of Hadrianus, to go beyond certain well-defined limits. Petronius satirizes a function of this nature, but the picture is obviously extreme and by no means typical.

The Studium Apollodorum, Antinous found after he had been a member of the organization long enough to be entitled to a marvelous two weeks' holiday chasing quails in Capreae, was no exception to the general rule. Promptly at sunrise, work began, and at noon the draughtsmen were free until rosy-fingered dawn encarnadined the somber veil of night at sunrise the next day. Due to his Ionic training, the young apprentice made rapid progress, and it was not long before he was entrusted with important work that ordinarily would have come to him only after an extended novitiate.

The Master had condescended to accept the commission (at a princely fee) to design a bathing pavilion in the gardens of the Villa Eumolpus in the suburbs of Neapolis, that celebrated city founded by the siren Parthenope. Decrianus had assigned the job, together with the rough notes and sketches of the Master, to Gnaeus, who had, in turn, given the cross section through the Frigidarium to Antinous. It was a scale detail and the latter was absorbed in the composition of the frieze around the dome, an entwined scroll of acanthus from whose bosky fronds Oceanids flirted with sleeping Fauni and Sylvani. The Attic soul of the young Bythnian was pouring itself out tracing the suave contours of these graceful creatures, completely oblivious to his surroundings, when he sensed someone standing behind him looking over his shoulder and breathing heavily down his neck. Glancing up quickly he came to attention, for it was none other than Hadrianus, who in spite of the

coolness of Apollodorus, was a frequent visitor at his studium.

The great man was in a genial mood, for he had just been adopted by Trajan as his successor to the Imperial Crown. Of medium stature and commanding presence, strong as an ox, he was the first Roman to wear a short curly beard; it was said to conceal the warts on his face. This made him a marked man, as the custom did not obtain until after his coronation. He had a roll of drawings under his arm, which he proceeded to spread out flat on the table in front of the astonished eyes of Antinous. These drawings proved to be sketches for a temple to Venus and Rome, drawn by the hand of the learned and austere general himself.

"Young man," he boomed, in a voice that sounded like the booming waves of the Britannicus Oceanus breaking on the cliffs of the Bolerium Promontorium, "what do you think of this for a fane?"

Antinous, immensely flattered, gazed respectfully on the sheets of tracing papyrus, making a few well chosen observations in a deprecatory tone.

"The great double niche must have been inspired by the Goddess herself," he said.

"Uh-Huh," said Apollodorus, who learning that something unusual was happening in his studium, had strolled over, unable to resist the opportunity of handing his rival a few cutting observations, "What's going to happen when the Great Mother decides to stand up? She's so tall she'll poke her divine head through the roof and maybe give her immortal block a nasty crack!"

Everybody stopped breathing at the audacity of the Master. The air was charged with ohms and heterodynes. Decrianus tugged stealthily at Apollodorus' toga and whispered in his ear the news of the adoption of Hadrianus by the God Trajan. Apollodorus paled a bit but stood his ground, steadily looking the great general in the eye. The two men glared at each other for a moment, and then Hadrianus, taking no pains to conceal his displeasure, turned on his heel in a huff.

At the door he paused, glancing back at Antinous, and in a level voice, he said:

"I'll borrow that young man of yours, Apollodorus, for a while. I need a young fellow of intelligence to carry out a few things I've in mind. He seems to be a likely lad and I can use him before he's spoiled by your Phoenician conservatism."

Motioning Antinous to follow him, the two departed, passing through the Forum on foot, for Hadrianus habitually walked in preference to other means of locomotion.

"Apollodorus is growing old," remarked Hadrianus grimly. "He needs a vacation, and I'll see he gets one shortly."

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After this incident, Dion Cassius\* tells us, events began to succeed each other with startling rapidity. Trajan had been absent from Rome on a punitive expedi-

tion in Assyria and Mesopotamia. On his return through Cilicia, he was stricken with an indisposition and died in the little town of Selinus in August, A. D. 117. At the beginning of his malady, Plotina, the Empress, had persuaded Trajan to name his kinsman Hadrianus his successor. The choice proved a wise one, and the news of the nomination preceded the announcement of the Emperor's death by only a few days. Plotina introduced Hadrianus to the army as their new leader and the change in the administration was very well received. "In the beginning of his reign he adopted the virtues of his adopted father and predecessor Trajan; he remitted all arrears due to his treasury for 16 years, and publicly burnt the account books that his word might not be suspected." (Lempriere, p. 5, Part II, 7th American Edition, New York, 1832.)

A great traveler, Hadrianus always accompanied his army on foot. Like college boys and golf players, he sedulously went bareheaded. It is estimated that in his travels from end to end of the Empire he walked 45,000 miles. His habits were simple, and unlike Trajan, who dearly loved the flowing bowl, he was most temperate and regularly shared the abstemious repasts of his soldiers. His memory was prodigious; it is said he never forgot an incident, and could call every soldier in his army by name. For seven years he visited Asia and Egypt and built temples and founded cities with a lavishness and frequency that might well be the envious despair of our own city planners. He also wrote an account of his travels.

Among the chief works with which the name of Hadrianus is associated, works of enduring genius, are the Temple of Venus and Rome, an immense Thermal Establishment, the restoration of the Pantheon, his famous Tomb on the banks of the Tiber, and hardly less famous Villa at Tivoli. It must be evident that his active life, the cares of state, the many family details and the supervision of his large studium, left but little time for the actual designing of the great number of executed works that bear his name. As a matter of hypothesis, the basis of which is founded on certain salient facts that will be more fully revealed at the proper time, many of the more important of these works were largely designed by Antinous.

During his short life previous to his untimely death, Antinous was closely associated with the Emperor. He enjoyed his confidence and affection as none other is known to have done. He accompanied him on many of his hikes and at each stop Hadrianus made (not for pur-

\* The famous Greek Historian Dion Cassius Cocceianus, b. Nicea, Bythnia, 155 A. D. He held high office under several Roman Emperors and was an intimate friend of Septimius Severus. He wrote a history of Rome in 80 books, only 23 of which remain intact. He modeled his work on the writings of Thucydides, and while he is inferior to that great author, yet certain passages are models of rhetorical composition. The great value of his work lies in the fact that he had free access, on account of his governmental position, to the state archives. One of the first acts of Hadrianus after he became Emperor was to send Apollodorus back to Damascus. It virtually amounted to banishment, as the opportunities for lucrative commissions were few in comparison with those in the Imperial City. The Master complained bitterly of his degradation and finally his scathing denunciations of Hadrianus caused the latter to order his execution. So ended an illustrious career.

poses of Imperial pride, but to see that justice was administered impartially) a compact kit of Architect's tools were set up. Here, while the Emperor was engaged in affairs of State, Antinous labored diligently, often until late at night, over sketches, details, and working drawings of some of the noblest monuments of antiquity. The temple of Venus and Rome was largely the work of the main office in Rome, Antinous merely adding some graceful touches to the details, and rectifying certain proportions in accordance with the symmetries of the Greeks.

The Pantheon, originally built by Agrippa in the reign of Augustus, and dedicated to all the gods, had been seriously damaged by lightning. The genius and skill displayed by Antinous in its restoration is truly remarkable. The fact that it still stands today, the only antique Roman monument in perfect condition, is a tribute to the careful grounding in stereotomy and statics Antinous received in the office of Apollodorus under the guidance of that splendid engineer, Decrianus. The restoration of the walls with their pilasters of Giallo Antico, the adornment of the interior niches in varicolored marbles, the strengthening of the dome and the splendid pavement, date from the time of Hadrianus. For eighteen hundred years his work has lasted, and the soundness of the dynamic principals on which it was built assure it many more centuries of existence.

It was in the Villa at Tivoli, however, that Antinous had his most sympathetic task. As a country house architect his position is supreme. The wealth of its forms, the playfulness and dignity of its many dependencies, the skill of its garden craft, can best be imagined from Mr. Haffner's delightful restorations.

The Tomb of Hadrian shows that as an architect capable of designing in the noble and monumental style of the earlier Greeks, Antinous was *facile princeps*. Of course, all these works were done in collaboration with the great Emperor, and it is not intended to detract in any way from the genius of that extraordinary man by suggesting that the grand monuments ascribed to him were done by another. The truly great artist, however, is so constituted that his mind is wholly filled with the divine essence of the Aganappides and incapable of concentration for long continued periods on major activities that distract the soul of the creative genius. The career of Antinous may be compared to that of Raphael Sansio in some ways. But for his untimely death, there

is no knowing to what Olympic heights his art might have attained.

He accompanied the Emperor on his Egyptian expedition undertaken in accordance with the policy of Hadrianus to see for himself how affairs were being administered in all parts of his kingdom. The journey was a tragic one for both. During the voyage up the Nile Antinous was unusually silent. The air was serene, the weather perfect, and the river only moderately full. As day waned it was the custom to tie the royal barge to the bank, while the company debarked to stretch their legs, and bivouac for the night. In the silent hours of the evening while Luna and the curious stars shed their wan light over the gently lapping waves that reflected the mighty pylons of Osiris and Ra, Antinous would steal softly back to the boat and sit for hours, gazing over the side into the silent depths.

The phosphorescence was unusually brilliant February 14th, the eve of the Lupercalia, the animal festival in honor of the great God Pan. It was the anniversary of Antinous' arrival in the Imperial City. Far, far down, way below the muddy floor of the mighty river that Eratosthenes, the learned librarian of Alexandria, called "Nili caput quaerere," he faintly saw dancing lights. A group of Nereides were weaving in and out among the reedy fronts in chorybantic rhythm. This sight rendered Antinous quite mad.\* It was a sad sort of madness, occasioned by the indisposition of the Emperor, who was suffering even then from the malady that eventually caused his death. The idea possessed him that if by the offering of his own life, Antinous could cause health to return to his imperial master, the sacrifice should be made. Half conscious of what he was doing, he stood erect for a moment, looking back to the shore where the preparations were even then being completed for the feast of the morrow, then, with a graceful swan dive he sank silently into the depths of the enveloping waters. The companions of Leda bore him away in their emerald arms and the earth knew him no more.

Thus was the warning of Plinius Secundus, uttered half in jest, fulfilled.

Hadrianus was inconsolable at the loss of his favorite. He caused gorgeous sacrifices to be made, erected a temple for his worship, and gave out that he had been changed into a constellation. This is the second instance in history of an architect being worshipped as a god, Imhotep being the first.

\* Vide Propertius.



# CRITICS, CORNICES AND CHAMELEONS

By LOUIS LA BEAUME

AT no period in history has mankind been more feverishly engaged in the activities of building than at this present moment. No race of builders—not even excepting the Romans—ever matched in volume, over a period of like duration, the acreage of roofs, the tons of masonry, or the cubic yards of earth, which we in America have placed and displaced since the turn of the century. No generation of men has ever witnessed so lusty or animated an exercise of the Art of Building. The spectacle is of such vividness, the excitement of such intensity that the attention of the most innocent bystander is challenged.

It is highly probable that Architecture will sooner or later become in America, as in other civilized States, a subject of intellectual as well as esthetic concern. And it is fair to assume that Architecture will incite intelligent discussion among cultivated people; and that architectural criticism may be raised to the dignity of an art scarcely less stimulating than the art with which it will be concerned. At present we can point to no such keen analysts or interpreters of Architecture as might be compared with the great critics in the fields of literature, painting, or music. But occasional faint voices may be heard above the din of the concrete mixers and the riveting machines.

Artists have ever been critical of critics, especially of those whom they regarded as being deficient in sympathy or parsimonious of praise. Poets lash back at uncomplimentary reviewers, and painters scorn the aspersions of commentators who do not paint, and are scarcely less violent in the face of those who do.

Whistler was very witty at the expense of the misguided souls whose praise was not fulsome enough, and actors and prima donnas have been known to fly into the most desolating rages over the admonitions of stage directors or musical conductors. Of course, the artist must have faith in himself, and be conscious of the effect he is striving to create, but every art must be tested and tried and refined in the fire of criticism. The great architectural styles were thus purified and brought to perfection. Prose and poetry, painting, music and the drama, have been chiseled and tempered by criticism.

These arts, however, all differ from Architecture in that they are purely of the stuff of the spirit; and matter, gross, hard, unyielding matter, does not enter into them. Nor have they any utilitarian ends to serve. Whereas Architecture must be wrought of solid substance, must neatly and adequately satisfy its measure of utility, and at the same time beautifully fulfill some need of the spirit.

The words which are put together to make literature, the musical scale, and the instruments used to evoke it,

even the tools of the painter have undergone mutations; and these mutations have affected the evolution of style in these arts. Likewise the spiritual appetites to which these arts minister have undergone change. So, too, have man's spiritual demands changed toward architecture, and while stone remains stone, and brick remains brick, and marble is still marble, new materials by the score and an infinite number of new tools have come to the architect's hand. If climate has not changed, we may safely say that it has been conquered along with some other natural irritations. Whether for better or worse, we have become the creatures of comfort, convenience and efficiency.

Some of these changes in our habits and desires have come rather suddenly, and we have been, in a sense, overwhelmed by them. They have overtaken us and caught us a little unprepared to accommodate ourselves to them with that grace and naturalness which is the desideratum of art. Progress, as Margot Asquith has said, seems to have outstripped civilization. Certainly it has outstripped the art of Architecture. We have been dallying along in any old century, from the first to the eighteenth, drifting back and coming forward, savoring the Architecture of every age without a thought of the morrow, until lo, we have been precipitated into the morrow, and the day after the morrow; and we are ill at ease. Our confusion of thought is painful, and our lack of settled artistic or architectural conviction is each day becoming the subject of more and more outspoken and critical comment. Our academic authorities are adept in evaluating the Architecture of the past, and more than zealous in applauding our obedience to tradition; while, in strident voices, our more revolutionary spirits clamor for less obedience and more adventuring. The partisans of every school and period have had their hearing, and have succeeded in driving us into a kind of compromise by granting a certain number of votes to each.

The Classicists have pre-empted the provinces of Banking and Government, so that business integrity and financial solvency, as well as the majesty of the State, are symbolized by the column, entablature and pediment of Greek and Roman glory.

The Romanticists, or rather the Medievalists, for each of us is romantic in his own shy, personal way, have taken over practically the whole domain of Ecclesiastical and Religious authority; and as scholarship in the middle ages was nurtured by the patronage of the church, we find today the work of advanced research and daring investigation carried on in picturesque structures as like as possible to those in which the necromancers and astrologers of old mumbled their incanta-



tions. These are our institutions of advanced learning. Our grade schools and high schools are less musty, more matter of fact. They are, as a rule, much less romantic, as it is fitting that the Temples wherein children are first introduced to the mysteries of the three R's, should be. They are airier, with greater expanses of glass, rather rigid in outline, and scientifically, even mechanically, designed to give each child the requisite amount of square feet to expand in and cubic feet to breathe in. Still, as a concession to tradition, many of them retain some faint and diluted Gothic flavor in the Elizabethan detail of their portals, their parapets and their fenestration. The schools of our children are younger in spirit, less mellow, let us say, than the halls of learning designed for their elders.

These have been our rough divisions into the two great camps of the stylists. It has been less easy to allot the vast number of minor buildings individually owned, and the field of Domestic Architecture has been tacitly resigned to the contenders as their battle-ground. In the country, and the suburban areas, the Romantics ride gaily to victory, while in the more thickly populated cities the Classicists are strongly entrenched.

It may be fairly said that this battle (of the styles) during the last generation or two has resulted in the sharpening of weapons and of wits; and many charming monuments testify to the valor and skill of the contenders. The laity has enjoyed the spectacle and everybody has got his own peculiar kind of satisfaction out of it. But long ago questioning voices were raised. Louis Sullivan and others argued for Architecture as a living art, and uttered words of scorn aimed at our capricious preference for Archeology. Repeatedly we have been irritated by the cry for a distinctive American Architecture, but we have heeded it as little as we have heeded the plea for the great American drama, the great American novel, or the great American opera.

Both the desire for the expression in art of whatever distinctively national traits we may possess, as well as our irritation in the presence of the desire, may be attributed to the consciousness that we have not yet attained any striking individuality as a nation; that we are still a cultural province of Europe. Perhaps we still feel that we have not yet succeeded in blending together the various racial strains that flow westerly from the old world. We call ourselves Americans, but we speak a dozen European tongues, and many dialects, though English is the official language of our courts and legislative assemblies. Racially we are composite, and without any such unique individual or local culture, as, for instance, the French or the Italians, not to mention the Chinese, the Arabs or the Hindus.

Notwithstanding this, however, we are told that, little conscious of it, though we may be, our Americanism can never be disguised. We speak our English with an American accent, and we have invented idioms that are

peculiarly our own. So, we are assured, our Gothic is Gothic with a difference, our Classic has something of the twang that Uncle Sam cannot rid himself of; that no matter how French or Spanish we try to be, and we do try very hard, there is a brogue or a burr or a nasal note that gives us away. Well, of course, the germ of an American Architecture may live in that nasal note, but the idiosyncrasies of the skillful translator are all but submerged in the racial flavor of the work of art he translates. If the American character has not yet emerged sufficiently to be easily recognized as more than an accent it is idle to talk of an American Architecture. But there is another quality the lack of which has been noted, and for that lack we are being censured. This quality is called vaguely, originality or modernism. And this is very strange.

Let us grant that we are not a cohesive people, that we have no deep-rooted architectural or cultural traditions. Let us grant even that we are not, and are destined never to be, a race of Artists. There have been only five such in history, according to Havelock Ellis, worthy to be considered in the first rank. These, he feels, are the "Chinese, and the Egyptians, and the Greeks and the peoples of Islam and the French." And a writer in one of our current architectural journals discussing "New Styles in Monoliths,"\* meaning poured structures of concrete in which he imagines the ideals of modern Architecture, says "I do not believe that such a thing as an American style of Architecture is possible. I believe, however, that it is possible for a modern architectural style to be developed which will not conform to any particular past or present classification, but which will be sensibly attractive and perhaps beautiful." This doesn't seem an overwrought or highly emotional statement. There isn't much thrill in it, and it might even tend to dampen the ardor of the very young. It is quoted to show that the writer attaches more importance to rationality, which he calls modernity, than he does to nationality. It is conceivable, of course, that the peoples of the world will grow more alike in their aims, their needs, their tastes, and their desires, as their familiarity with one another increases. And the time may come when racial and national differences will be only faintly marked. But we are all moving toward the future and cannot remain static, nor too enamored either of the present or the past. With varying degrees of reluctance we give up old habits and customs and take on new ones in their stead. And it is a commonplace to say that nowhere in the world have such changes been so rapid as in America, a continent seemingly reserved by destiny as the proving ground, or testing laboratory for new theories of government, new experiments in industry and social science, new applications of the laws of physics, and new inventions in the realm of mechanics. The results of our empiricism have tre-

\* "New Styles in Monoliths," by Joseph B. Mason, *The Architect*, September, 1928.

mendously accelerated the pace of society all over the world. It must be considered strange, then, in view of our enormously revolutionary contributions to practical science, social as well as mechanical, that our Architecture has remained frozen in ancient molds.

In one or two fields, it is true, some critics have discovered a tendency toward a new and distinctive Architecture. Our industrial buildings are in many instances frank and straightforward; designed to fulfill their function because, under modern competitive conditions of manufacture and distribution, archaism is penalized and inefficiency damned to disaster. Extraneous details and meaningless motifs are ruthlessly cast away, and only such forms as are fit can survive. Our hives of offices, rising to preposterous heights, are designed with an eye on the balance sheet; often by their sheer bulk and mass they are impressive; but neither bulk nor height are new elements in Architecture. Moreover, the vaster building the less damaging economically are the extravagances of misspent ornament and illogical design. There is, however, without doubt something different, something new, something modern making itself apparent in our current commercial work. Some of this feeling we are still borrowing from abroad, for in Germany, in Denmark, Sweden and Finland there is a new leaven working. But some of it has been achieved independently, if coincidentally, as a result of the same inexorable forces which are at work in Europe and here.

Leaving out of consideration the personal quality in the work of such men as Saarinen, Wright and others, as well as certain strange aberrations of form noticeable in France and Germany, let us seek to discover and analyze the qualities which strike us as modern in our contemporary designs.

Most apparent perhaps is the quality of cleanness and leanness of outline, a kind of crisp spareness. This characteristic is apparent whether the building achieves its prime effect by reason of its silhouette, or as a lower building standing among others, or as a simple facade. If ornament is used it is used as accent and with point, not to soften or blur or dirty up the surface. Naturalistic ornament, the old Renaissance scrolls and arabesques, the birds and buds, and opening flowers pinned on to the wall, have all but disappeared. The new ornament is incised rather than applied; it is rigid rather than fluent, conventional rather than naturalistic. Arbitrary belt courses have disappeared or are suppressed; all projections are more restrained. Cornices have sloughed off, and with the disappearance of the Classic

entablature, columns and pilasters, having little or nothing to do, have faded away.

These are all qualities of design, and have very little to do with materials or with construction, and may scarcely be regarded as outrageously iconoclastic, bizarre or fantastic. They do not imply the invention or use of strange or unfamiliar forms; and whether the results are pleasing or not, they seem to indicate a tendency toward what, for want of a better name, we designate as Modern. Sometimes the profiles or the forms may recall Gothic elements, sometimes Classic; but the reticence, the laconic quality, and the absence of pomposity or floridity seems to fulfill a modern need.

The reluctance of man to relinquish the cornice is provocative of wonder, and perhaps we should never have been weaned but for the coming of the skyscraper. On low buildings in hot countries the cornice was an understandable survival of the projecting eave. But, here and now, it has become more and more an anomaly—useless, difficult, dangerous, meaningless. Faint traces of it will persist for centuries perhaps, as traces of our tail muscles exist, though we wear our tails no more.

The element of freshness in our workaday design, forced by the necessity of accommodating our commercial buildings to their environment and function, may in the course of other centuries communicate themselves to the buildings we build for pleasure instead of profit. But, daring as we are in the laboratory or the market place, it must be admitted that we remain conservative in our homes and sanctuaries. People may live and love and be happy and reasonably comfortable in almost any kind of building, so long as it is warm and dry and well plumbed. Almost any of us can make shift in a Cotswold Cottage, or a Florentine Villa, a properly brushed up Spanish farmhouse, or an Elizabethan manor. We may put up with a few archaisms and inconveniences for the sake of the satisfaction of knowing that our domicile is true to some dead man's type. So there is no stern necessity to conform our Domestic Architecture to the manners and customs of our own times. Nothing but a passion for the integrity of Architecture will avail here. And that passion does not seem at the moment very hot.

Our most gifted men continue to render the most brilliant imitations in any style that is called for. We are amazed and thrilled, as we used to be by the marvelous mimicry of Cissy Loftus or Elsie Janis. We tingle, we applaud. But every now and then a chill comes over us, and we reflect that the chameleon, though a very clever fellow, doesn't inspire our profoundest respect.



# OUR INDUSTRIAL ART

## Source Material and Research

By RICHARD F. BACH

IT has been our province, privilege and pleasure for some years to advocate, and to assist definitely in, the making use of historical material by designers of contemporary industrial art, and in the development of this activity a quite reasonable comment has come to the fore, this being of a kind that time itself will presently render inapplicable, yet at the same time of a kind requiring consideration in terms of the principles underlying the use of source material by creative artists. Brief mention of it here may have a bearing upon the general subject of the improvement of design, which has been so obvious in recent years as a result of the working together of numerous influences, among them this significant one of the greatly increased interest in the study of the past glories of industrial art.

To begin with, it has been said, "why refer the designer of today to a storehouse such as The Metropolitan Museum of Art, for instance? He can find there, with few exceptions, only the work of past styles, languages no longer spoken, the tongues of men long dead, while he, as the producer of today, must throb to the present, live upon the food of today and speak the language, the argot if you like, of an age which must see itself in its own mirror." All of which is both right and wrong.

Strange as it may seem, even to some very alert minds we know, a museum of art is not in any sense a storehouse. Rather is it a collection of well-selected, well-documented, well-displayed, well-housed and well-interpreted works of art, these intended and, by various intra-mural as well as extension activities, made to bring to beholders, students and experts information, inspiration and pleasure. This somewhat wordy statement might be embraced in the much easier definition: a museum of art is a working educational institution. It would be a far cry to consider mere storing or mere display as the sum total of educational function. Museums today see their work in the light primarily of interpretation, of education, of inspiration and pleasure; these must be paramount if public purposes are to be served and these make excavation, preservation, exhibition and other expert activities worth while.

Conditions and requirements such as these and the demands which have grown out of them, can be served only by a very complex organization, its work subdivided according to types of interest to be reached or served. Among these types is the large group of specialists of various kinds, including manufacturers and designers of industrial art.

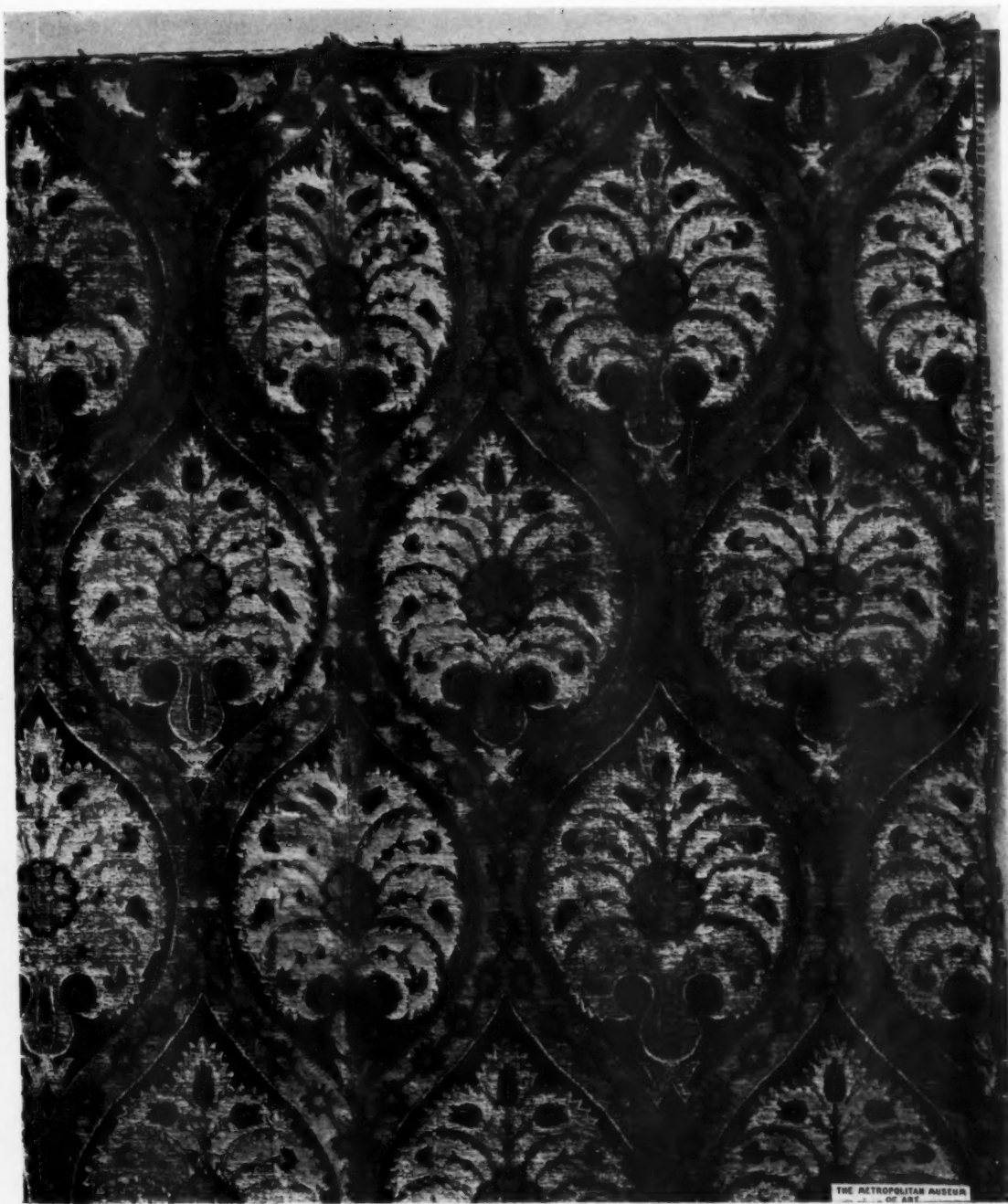
Now it may be said, even though the preceding is accepted without reservation, that there remains the difficulty of harmonizing the old and the new, the dead and the quick, in the mind of the designer who earns his weekly dole in Grand Rapids or Philadelphia, more especially of making it possible for him to see contemporary sales values through the glass of historic form. Our simple response is that success here depends upon the designer in the first instance and that the real responsibility falls in the end upon schools that train designers. It must be a bumptious designer indeed who, in these days when investigation and research are the rule in every line of production, still believes that he can evolve out of an airtight inner consciousness, the form and color that will be good and yet will sell. For an object of industrial art must meet both conditions.

His employer studies market trends, toward that end examines every kind of source material, and out of his findings establishes reasons for telling the designer that certain things won't go. The designer, in turn, must make similar studies, in terms of life as it is being lived all around him. But more than that, the designer must never allow his studies of design as such to lapse; by this we do not mean the process of designing, but the facts and principles of design as seen in executed pieces. It is there that museums and other collections, as source material, play a salient role.

For the intelligent designer, objects of art of any style whatever should hold an endless interest and inspirational quality and for him museums should be huge text-books of design with tri-dimensional illustrations. The simple argument is that an object of art of a past style is itself a human document to the extent of its own quality, enhancing and explaining the environment of its period of production, the training of its designer or maker, the general characteristics of a given time and place, the specific characteristics of certain materials and the then available skill in handling them. These are beautiful generalities, entirely gratuitous if offered for the attention of our "best minds," but worth repeating at a time when half-knowledge and *schwärmerei*, arrogant insurgency and hidebound reaction seem to vie with one another to prevent the crystallization of a reasonable viewpoint toward the development of a contemporary style. Sad to relate, most manufacturers and designers do not fall in the class of "best minds" on the subject of design quality. They see market, they see sales reports, they make patterns and models, they sell goods, they change with the wind of "what the public wants," they run the cycle of styles (or of style formularies), and fail to



JAPANESE RAW SILK RUG—EARLY 19TH CENTURY  
COURTESY OF THE METROPOLITAN MUSEUM OF ART



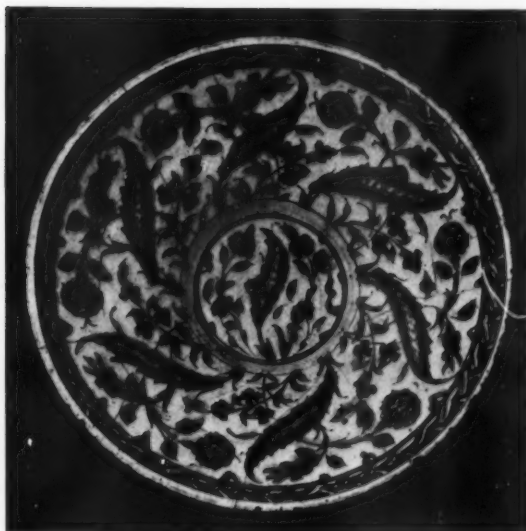
FABRIC FROM ASIA MINOR—16TH CENTURY  
COURTESY OF THE METROPOLITAN MUSEUM OF ART



QUEEN ANNE INLAID WALNUT CABINET—1702  
COURTESY OF THE METROPOLITAN MUSEUM OF ART



GREEK MIRROR, 400-300 B. C.  
COURTESY OF THE METROPOLITAN MUSEUM OF ART



BOWL, ASIA MINOR—EARLY 17TH CENTURY  
COURTESY OF THE METROPOLITAN MUSEUM OF ART



GREEK BRONZE WATER JAR—460 B. C.  
COURTESY OF THE METROPOLITAN MUSEUM OF ART



EGYPTIAN GOBLET OF ALABASTER, 1375-70 B. C.  
COURTESY OF THE METROPOLITAN MUSEUM OF ART

see that good design is the cornerstone of the whole commercial structure.

And what has this to do with source material and museums and the study of past stylistic documents? Plainly this: not only does (or should) the designer see these things as furniture, or pottery, or rugs, he sees them also (or should) as commodities, or items of trade and use that commanded a price, supplied someone's livelihood, must, therefore, have met a market demand in their own day. Whether the piece be a Japanese No costume or an ormolu drawer pull by Caffieri matters less than the fact that these commodities formed part of an economic fabric and were, despite that, (because of that, we prefer) surpassingly fine.

Given a grasp of the significance of design, as apart from the picayune meaning of lines drawn dryly this way and that to indicate Louis Seize or Chippendale, the intelligent designer gleans from old pieces a wealth of inspirational quality; for, after all, they quite definitely succeeded and under conditions of production and sale in their own way as difficult as those which he himself must conquer with the radio cabinets and teapots, watch chains and floor lamps he designs today. There lies the real value of source material—its inspirational quality, not what the old-time designer did, but how and why he was prompted to do that and nothing else. And there also lies the real difficulty in the way of effective use of source material. Very few designers have been trained to observe and to study. There is much implied in these workaday words.

Among the misnomers which it is our collective pleasure to apply to so many essential activities is the word, student. The connotation is that we are all born with an ability to study and that by going to an institution of learning where teaching is supposed to be the rule, we automatically begin to study. We may begin automatically to cough if our throats are tickled with a feather, but studying can hardly be included among such physical reflexes. One must *learn* how to study. In fact, in a very few forward-looking institutions studying is taught to students. There are indeed

several text-books on the subject. But to the best of our knowledge designers in our schools of art are not taught how to study, which here means the intelligent use of available data, old and new, in the development of their own ideas upon a problem of the moment. No wonder then that an object of art of a past epoch offers for them no emanation of spiritual quality and remains a stolid four-square record of certain motives and dimensions and materials evidently intended as someone's closest approach to a catalog of formal requirements that now we dub with a style name. No, we write it among the sins of omission of schools of design that they do not teach their students how to study.

The natural corollary is that the designer, arrived or in embryo, can enjoy but a stunted growth, nor ever really view the horizon of his possibilities, unless he has been trained in observation. By which is meant, of course, the apparently simple procedure of regarding his environment with seeing eyes. For all about him is the new style in the making, and, at the same time, though not conversely, the makings of a new style.

The best possible research is in the immediate environment of the creative artist, in the reactions and hopes and aspirations of his friends and enemies, in the politics and economics, in the buying and selling, in the flirting and, need we say it, in the sober drinking, of the day and hour in which he lives. Let him see the work of Cellini and Phidias and Peter Vischer and of the stone carvers of the portals of St. Trophime in a similar way, actively, against the background of war and religious dissension, of currying ducal or pontifical favor, of struggling to live, of living down family difficulties, all of this in a world of armor, or of ox-carts, or of sedan chairs—then the old piece will begin to glow. It will become, not a job of fact finding and formula, but an inspirational self-starter.

Research is a glorious opportunity to help the designer to reach for breadth and depth; none better. In the end the object of art does not stand still—it comes toward him; just as for the intelligent reader, words do not remain passive printed forms—they speak.





# THE INFLUENCE OF CONCRETE ON DESIGN IN CALIFORNIA

By HARRIS C. ALLEN

CALIFORNIA has always been hospitable to the stranger, and reinforced concrete was tried in that state for building purposes long before the 20th Century began. Climatic conditions favored both the construction and the maintenance of concrete work, there being no frost and little rain except in the extreme northern section, given over to great forests and ranches with few and small settlements. Moreover, there is a dearth of good local building stone, and the excessive cost of transportation added to that of labor has made the use of carved stonework all but prohibitive. A further factor, very significant in an "earthquake zone," lies in the great resisting qualities which a strongly bonded unit material such as reinforced concrete possesses against earthquake damage.

The dawn of the Cement Age, therefore, brought to California neither surprise nor novelty. Perhaps that is the reason that the use of concrete in its relations with architectural design have been characterized by little or no hysteria, or repudiation of historic precedent, to the extent that has prevailed elsewhere. Instead of revolutionary, the results have been much more evolutionary in their nature.

About three years ago, Professor Beresford Pite delivered a lecture on "The Architecture of Concrete" to the Royal Institute of British Architects, in which—Modernist though he be—is to be found a clue to whatever may have been achieved along this line. He says: "History will yield analogy, but scarcely example . . . . The characteristic adaptation which each (epoch) employed, when decorating one material with forms derived from another integrally and structurally different, will afford a clue and starting point for scholarly advance in the new material . . . . Provided that intellectual interest is manifested, it may be confidently asserted that an artistic result is assured and the path leading to architectural success entered upon, though in a hitherto unexplored territory . . . . Each historic epoch or style will yield inspiration to the student who earnestly seeks to impart something of his own, of himself, to a design for execution in a new material."

This is exactly what has happened, and is happening more and more widely, in the use of concrete as an exposed building material, with a number of architects in California whose work can safely be called successful. So far, fundamental conceptions of satisfactory proportions have been violated hardly at all, although the special characteristics of concrete have been frankly recognized. As a matter of fact, the flexibility of a material which lends itself not only to broad surfaces but to highly

ornamented areas as well, fitted it exceptionally to the style which can now fairly be called "Californian." Based on the traditional and appropriate Spanish-Colonial architecture of early California and Mexico, and finding much of congenial inspiration on the Mediterranean shores of Italy, France, Spain, Africa, it has become a law unto itself. It is joyous and beautiful, well adapted to the bright sunshine and the luxurious growth of the Golden State; and has brought out all the qualities of imagination and originality, intelligence and resourcefulness, in these brilliant young architects who are making of their profession a glorious adventure.

When no attempt is made to conceal the real character of concrete construction, it does not seem to me important whether a structure appears monolithic or jointed. Of course no concrete building of any size is without joints; there must be joints between two days' work, and there must be expansion joints. As some one has neatly put it, whether you want them or not, you will get cracks; either pre-arranged, or not pre-arranged. Breaks in a surface, whether plain or ornamented, need not destroy its essential monolithic character, either in construction or design. Even when it comes to pre-cast ornament, no difficulties arise to prevent it from being solidly anchored and cemented into place, in no sense a veneer of foreign material. The description of cast concrete as "artificial stone" is unfortunate, inasmuch as the work is commonly taken to mean sham, or something false. Literally it means "made by art." This is, indeed, stone made by human art and not by natural processes; similar small particles cemented together into an aggregate, and cemented much more firmly than is too often the case with natural stone. But it cannot accurately be called false or counterfeit. Some extremely effective surface textures have been secured through experiments with mix and mould, which certainly resemble tufa or travertine, or other rough textured natural stones, very closely; and even a method to simulate dressed stone, by using compressed fibre board carrying strips for joint lines. This cannot be commended for sincerity—although it really produces much the same effect, at much less cost, as tooling the surface by hand. In some buildings pneumatic tools have been used to give hand finishing to both plain and ornamented surfaces; notably in the Temple Emanu-El, in San Francisco, by Bakewell and Brown and Sylvain Schnaittacher, architects.

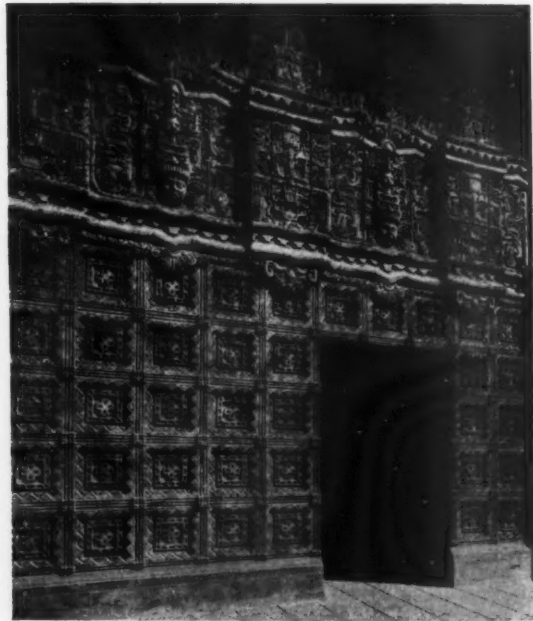
Among the many California architects who have won recognition for their ability in design, there are two who may be called pioneers in the treatment of concrete: David C. Allison and Stiles O. Clements. Mr. Allison



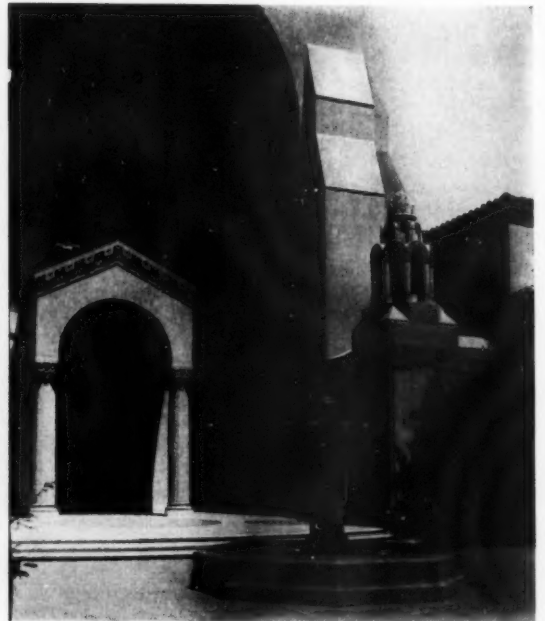
EL CAPITAN THEATRE, HOLLYWOOD  
MORGAN, WALLS & CLEMENTS, ARCHITECTS



HOLLYWOOD TERMINAL WAREHOUSE  
MORGAN, WALLS & CLEMENTS, ARCHITECTS



MAYAN THEATRE, LOS ANGELES  
MORGAN, WALLS & CLEMENTS, ARCHITECTS



ENTRANCE TO TEMPLE EMANU-EL, SAN FRANCISCO  
BAKEWELL & BROWN, SYLVAIN SCHNAITTACHER, ARCHITECTS

has been inspired by Italian art, Mr. Clements by Spanish; each has put his own personality into his work. Each of them has been prodigiously active, not only in turning out brilliant designs, but in securing good workmanship in execution—interesting and novel effects in texture, color, modelling. Each has a host of followers, many of whom do very good work indeed.

The University Club of Los Angeles is very well known. Built by Mr. Allison about eight years ago, its motifs are clearly Italian, and the composition as a whole is just as unmistakably original, and adapted to its purpose and place. Several other excellent club houses, schools and churches have given Mr. Allison opportunity to show his control of concrete for purposes of design. Whatever he turns out is scholarly, refined and yet vigorous, and always sincere.

While Mr. Clements had been getting very charming results for some time with shop buildings in the Spanish manner, his reputation was not fully established until the Hollywood Warehouse was built. That, too, is now well known; but a comment from "Architectural Design in Concrete," by T. P. Bennett, F. R. I. B. A., will bear repeating:

"Architecture consists of an ability to handle constructional elements so that they create a beautiful whole, and in this case the architects have succeeded in displaying the construction elements of the building in such a way that the result is exceedingly impressive.

"It is fascinating and instructive to visualize the interplay of structure and design in this building. Its lighting

units are well distributed; its columns are no larger than calculation shows to be necessary; its decoration has not absorbed valuable land area or trespassed upon the demands of practical use; yet it is architecture and not engineering, it has personality and distinction, and looks as if it might have been produced as a pure conception of architecture instead of being evolved as a practical proposition. *It was in this manner that the mediaeval church builders handled their designs and the Greek artists their temples.*"

The architects won a medal with this building at the Pan-American Architectural Exposition. They have continued to evolve an astonishing number of designs which show an increasing facility in the control of plastic ornament and well-proportioned masses.

It has been said that the structure of a building represents its bones and the walls its fleshy covering. In most of this profusion of concrete construction proceeding in California the form is beautiful, but in no way belies its skeleton framework. Our friends of the extreme modern school, especially across the Atlantic, may, and doubtless do, scoff at these concessions to our traditional fondness for beauty, at curves and carving and color; but the severe, cubistic, engineering type of design would seem as much out of place in lovely California as a kitchen range in a lady's boudoir. We are content with architecture that pleases the eye—that awakes grateful emotions—that with frank self-reliance expresses the virility and adaptability of its material.



FORECOURT, TEMPLE EMANU-EL, SAN FRANCISCO  
BAKEWELL & BROWN, SYLVAIN SCHNAITTECHER, ARCHITECTS

## CORRESPONDENCE

*The Jethro Coffin House, Sunset Hill, Nantucket, Mass.*



**U**NWITTING errors have crept into the account of the Horseshoe House in the June number of the *JOURNAL*. No less than two weighty authorities have written in questioning certain statements and asking further information on one or two knotty points.

Mr. William Sumner Appleton, corresponding Secretary of the Society for the Preservation of New England Antiquities, pleasantly but firmly points out certain inaccuracies of statement which we chastenly acknowledge. Mr. Appleton, in addition to his many and varied activities, is a member of the Nantucket Historical Association, and was selected by the Building Committee to take active charge of the work of restoration of the Horseshoe House. He properly takes exception to the statement that hardly a sliver of the original timbers remain, and indulgently remarks that this was, of course, an obvious exaggeration, not to be accepted literally. In fact it is difficult to tell after 242 years just what is original and what has been added. It is perhaps a fair assumption that nearly 50% of the old work remains. The sills of course are almost entirely new except for a piece about 20 feet long. More than half of the old girts are still doing service and a goodly percentage of the rafters and floor timbers are, as far as can be judged, the original ones.

The task of estimating closely the new work is a complicated one because of the fire which destroyed a portion of the rear lean-to. The entire front seems to have been re-boarded and shingled by Mr. Tristram Coffin when he bought the house in the '70's or '80's. The boards are not as good as those used in the roof, but were retained to allow the restorer to keep the old wooden shingles. It is distressing to record that at the back of the house the Architect was compelled to use fierproof shingles of selected asbestos. These shingles are some-

what too light a shade, but it is hoped that time, nature's soothing lenitive, will remedy that decrement.

To those of statistical mind, Mr. Appleton presents a very complete list of new and old girts, rafters, and studding and the amount of repairing necessary on the summers. In his estimate he counts the old wood from the Paddock house (which was the house standing until two summers ago just to the south of the Horseshoe House), since this material is new to the Coffin House.

We find that we are also in error as to the absence of either cellar or wall. Under the west parlor a cellar about one-half of the size of the room was found and two sides and the remainder of the house rested on a coacervation of rubble, if Mr. Appleton remembers correctly. He states there was nothing that could be called a trench wall as stones are notoriously scarce in Nantucket.

Our gravest error was in stating that the outside boarding of the early house was originally vertical. While this cannot be definitely disproved, Mr. Appleton feels very strongly that many of the old houses had no boarding, the clapboards being nailed directly to the studs. No evidence of this was found in the Coffin House. It, however, is definitely not a plank house, but one of stud construction, and Mr. Appleton believes it always was. We are also glad to accept the correction that the chimney instead of sinking 9" has listed 9" to the west along the ridgepole. For that reason it was felt necessary to straighten it somewhat. Not the whole 9" however, but about 6" or 7".

Mr. Appleton questions whether there would have been any crane in the old Jethro Coffin House at the time of its erection, and believes it more likely that trammel irons hung from a lug pole served all the purposes of a crane. It is disappointing to learn this and destroys one of our cherished theories.

Mr. Alfred Shurrocks of Providence, R. I., was the architect in charge of the restoration under Mr. Appleton's direction. His knowledge of the new and old timbers is very extensive and apparently he has made an astonishingly complete survey of the quantities. After going over his figures he agrees with Mr. Appleton in the statement that 50% of the house as it now stands is old. In the west end practically all the entire wall still has its original clay fill and great pains were taken to keep it from dropping out. In the western half of the rear wall much clay fill remains and a trifle was even preserved in the front wall. The chimney, Mr. Shorrocks remarks, was not laid in clam shell mortar—on the contrary it was laid in clay. As to the new brick work, it is half laid in cement mortar and the rest in clay mortar, the cement mortar being pointed with clay where it shows. Hardly a new brick was necessary and fully

9/10 of the chimney is untouched and is as he found it. Enough hand-split wood laths remained in the Paddock House to serve for all the new plastering in the Horseshoe House.

Arthur A. Shurtleff, A.L.A., Asso., A.I.A., writes: "Your article on The Horseshoe House in the Journal of the American Institute contains only one foot-note. It deserved many, but I should say commentaries are deserved for almost every one of your sentences. Especially your lines referring to the lack of stairs in the early American Wigwam (circa 1492 to circa 1620).

Do you consider the want of risers to have been occasioned by the absence of treads or vice-versa? Was it the same with cellar stairs or was their curious absence only incidental? Do you think the American skyscraper with its tapering lines, (smoke issuing from apex), was a direct development from the prototype wigwam which as you know was tapered and provided with a single apical (or summital) smoke orifice?"

We hardly know how to reply to Mr. Shurtleff. It would almost seem as if he were spoofing us, and yet there is the germ of a very subtle truth in his observations about treads and risers. It is as the old question,

"which came first, the Hen or the Egg?". Offhand we should say vice-versa. Certainly we have no proof that Pithecanthropus Erectus, the Piltdown and Neanderthal man, or even the Eocene man for that matter, were accustomed to furnish their squatting places with either risers or treads. They used rough stones, crudely shaped for communication from terrace to terrace and back again to terrace, after the glacial floods had subsided. Osborn\* tells us that, "Eoliths found on this high terrace level at St. Prest belong to the Prestien culture of Rutot, who regards this station of upper Phocene age." Then there is the Bessler folding stairway in which, when raised to the level of the ceiling, all the risers automatically become treads, and vice-versa, which seems to uphold our contention. The absence of cellar stairs was incidental, as Mr. Shurtleff correctly observes.

In regard to the development of the American skyscraper we feel that Mr. Shurtleff has, wittingly or unwittingly, disclosed the nubbin of a great truth, as yet only simmering in the sub-liminal consciousness of the designers of these mugient masterpieces.

HUBERT G. RIPLEY.

\* "Men of the Old Stone Age,"—p. 85.



## APPLICATIONS FOR MEMBERSHIP

October 15, 1928.

### TO THE MEMBERS OF THE INSTITUTE:

The names of the following applicants may come before the Board of Directors or its Executive Committee for action on their admission to the Institute and, if elected, the applicants will be assigned to the Chapters indicated:

BOSTON CHAPTER	Stanley Bruce Elwell
CHICAGO CHAPTER	Knight Cheney Cowles, Denison B. Hull.
CLEVELAND CHAPTER	James H. Duthie
FLORIDA CHAPTER	T. M. Bryan, Henry L. Taylor
HAWAII CHAPTER	Marcus C. Lester, Robert Miller
INDIANA CHAPTER	Francis W. Kervick
MINNESOTA CHAPTER	Louis C. Pinault
NEW JERSEY CHAPTER	James Holt, Brown Rolston, Abraham Slavin
NEW YORK CHAPTER	Rudolf H. Blatter, Victor A. DeProse, Arthur Paul Hess, Raymond J. Martin, Fritz Muller
NORTH CAROLINA CHAPTER	William Crumley Hol- leyman
NORTHERN CALIFORNIA CHAPTER	Will M. Bliss
OREGON CHAPTER	William Hamblin Crowell
PHILADELPHIA CHAPTER	Frank P. Chambers, Philip H. Johnson.
SOUTH TEXAS CHAPTER	Robert C. Smallwood
SOUTHERN PENNSYLVANIA CHAPTER	William Hughes Caldwell.
TOLEDO CHAPTER	C. Gordon Conklin, Leonard Hall Gerow

You are invited, as directed in the By-Laws, to send privileged communications before November 15, 1928, on the eligibility of the candidates, for the information and guidance of the Members of the Board of Directors in their final ballot. No applicant will be finally passed upon should any Chapter request within the thirty day period an extension of time for purpose of investigation.

Yours very truly,

FRANK C. BALDWIN,  
*Secretary.*

## OBITUARY

**J. W. C. Corbusier**

Elected to the Institute in 1917  
Died, Hudson, Ohio, June 8, 1928

**George Frederic Hall**

Elected to the Institute in 1912  
Died, Providence, R. I., September 5, 1928

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## FROM OUR BOOKSHELF

*Paris, a Century Ago*

Portraits of cities when done by artists with a sense of the pictorial are always fascinating. They also become interesting and valuable documents in time, for the faces of cities change even faster than the faces of our friends. This book of Thomas Shotton Boys' lithographs\* is the reissue of the second of two books left by him. The other volume pictured London. The twenty-six plates are done in full color by the half-tone process, considerably smaller than the originals and with an unavoidable loss of color and tone, but well done nevertheless. The original lithographs are getting very scarce and more and more expensive as the recognition of Boys as a draftsman is growing, and certainly this compilation of reproductions is most welcome.

Mr. Chancellor has wisely included a reprint of the original publisher's note describing the lithographic process originally employed. Where, for instance, can one find a more lucid statement of the marvels of lithography than in the following quotation from this publisher's note: "They are Pictures drawn on Stone, and reproduced by printing with colors; every touch is the work of the Artist, and every impression the product of the press"? Also it is interesting to note that, "This is the first, and, as yet, the only attempt to imitate pictorial effects of Landscape Architecture in Chroma-lithography; and in its application to this class of subjects, it has been carried so far beyond what was required in copying polychrome architecture, hieroglyphics, arabesques, etc., that it has become almost a new art."

There is an informative introduction and each plate is accompanied by a page or two of comment by Mr. Chancellor. As a collection of beautiful pictures of urban life and street scenes, or as a basis for comparing the aspects of great continental cities a century ago with those of today, or merely as a beautiful book, this reprint will be treasured by the many of us to whom the originals cannot be accessible.

B. J. L.

### *Estimating Building Costs*

This little book† is intended to be a concise and handy guide to scientific estimating of costs for contractors, material men and technical students interested in building operations of moderate size. It is valuable more for the lucid exposition of the first principles of cost estimating, rather than for definite information.

Most of the tables are empirical and based on unit prices which may be easily used as basic factors, rather than actually conforming to facts, but in so being simpli-

\*"Picturesque Architecture in Paris, Ghent, Antwerp, Rouen, etc. Drawn from Nature on Stone by Thomas Shotton Boys, 1839," printed in colors and with Descriptive Notes and an Introduction by E. Beresford Chancellor, M.A., F.S.A. The Architectural Press, London.

†"Estimating Building Costs," by William Arthur—A Concise and Handy Guide for Contractors, Building Tradesmen, Material Men, and Technical Students. Scientific Book Corporation, New York.

fed are even more valuable as illustrating principles and methods than they might have been if calculated in odd cents and complex fractions. As a primary text book on the principles of estimating, the book is excellent, and we know of many an important estimate prepared with far less knowledge of the technicalities involved than may be had from a study of this book. There is some danger, however, that some misguided student may take the rather broad data literally and learn, at some cost, that a little knowledge is more dangerous sometimes than even complete ignorance.

The format of the book is convenient and the make-up of excellent quality.

### Stair Building

Not so many years ago every architect's office had in its library—usually even less than a "five-foot shelf" of books—a "Carpenters' Guide" or "Master Builders' Assistant," a rather large book illustrated with line engravings, beginning with a demonstration of the simpler construction problems in plane geometry, leading on to problems of roof framing and stair building,

stereotomy, and often finishing off with a rude treatise on perspective drawing and shades and shadows. Mr. Williams in his book\* on stair building, clearly a descendant and modernization of one of these books, has omitted the geometry, the stereotomy and all the rest, and has confined himself to stair building and the doctrines of Peter Nicholson, the father and master of them all, on the layout of cylindrical stair railing. The material has been modernized and brought down to date. It is a pity that the diagrams, otherwise quite lucid, are for the most part too small in scale. The problems of stair layout are complex, doubly so for those inexperienced in graphics, for whom this book is largely intended, and should not be further complicated by diagrams confusingly small.

The last chapter, containing thirty-one rather mediocre illustrations of grand stairways, mostly marble and bronze, adds nothing to the book but pages. Despite its faults, the book must be rated as a concise and valuable compilation of stair-building data presented in lucid and convenient form.

\*Stair Builders' Guide by Morris Williams. Scientific Book Corporation, New York



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# The Handbook of Architectural Practice

The Handbook has been issued as a second edition. It is dedicated to its author, Frank Miles Day, Past-President of the Institute.

The Handbook is a complete exposition of good office practice. It discusses the Architect and the Owner; the Architect's Office; Surveys, Preliminary Studies and Estimates, Working Drawings and Specifications; The Letting of Contracts; The Execution of the Work; The Architect and The Law; and the Documents of The American Institute of Architects.

The Handbook contains, in current form, all of the Contract and Ethical Documents issued by the Institute, and their explanatory circulars.

The Handbook is a valuable reference work in any office. It is issued in Molloy binding with title in gold, at \$6.00 per copy; and in cloth binding, at \$5.00 per copy.

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