

https://dspace.org/

South African Architectural Record: Journal of the Transvaal, Natal and Orange Free State Provincial Institutes of South African Architects and the Chapter of South African Quantity Surveyors

1933

Institutes of South African Architects and the Chapter of South African Quantity Surveyors

http://hdl.handle.net/10539/18867

South African Architectural Record; Journal of the Transvaal, Natal and Orange Free State Provincial Institutes of South African Architects and the Chapter of South African Quantity Surveyors. 1933 vol:1-12 p1-322

Downloaded from a DSpace repository. https://dspace.org/

3 The Year in Review

5 A Letter from Mr. W. G. Lansley

7 A Roman Construction

15 Professional Notes and News

17 The Street of Patios

22 Book Reviews

Honorary Editor

Professor G. E. Pearse

Business Manager

A. S. Pearse

The editor will be glad to consider any mss., photographs or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for mss., photographs or sketches, and publication in the journal can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and mss. The Institute does not hold itself responsible for the opinions expressed by individual members.

Annual subscription per post 10/6 direct from the business manager.

the south african architectural record

The journal of the Transvaal, Natal and Orange Free State Provincial Institutes of South African Architects and the Chapter of South African Quantity Surveyors.

67, Exploration Buildings, Commissioner Street, Johannesburg, P.O. Box 2266. Telephone 33—1936.

Volume Eighteen Number One, January Nineteen Hundred and Thirty Three.



patio sevillano • photo linares

WITS UNIVERSITY LIBRARY
JC164046

2

the year in review • g. e. pearse

The past year has been an unhappy one as far as the majority of architects and builders in South Africa are concerned. Building progress which was fairly active at the commencement of the year very rapidly declined and the end of the year witnessed a period of stagnation and unemployment. The new year has opened with a feeling of optimism and hopefulness which augurs well for the future of the building industry, but, with the prevailing uncertainty, development is sure to be slow. The architectural profession and the building industry should make every effort to encourage the authorities to proceed with their building programmes and constantly urge them to distribute the work amongst individual architects thus giving some ray of hope to those who are in practice or who are in training for our profession.

To these latter the outlook is black. The important architectural work of this country is either government, municipal, commercial or speculative and very little of it reaches the offices of qualified practitioners. Government work is still the prerogative of a government department owing chiefly to the fallacy that having built a hospital, school or post office the department is necessarily expert in this class of work. The fact that the present generation of architects is trained in research in the planning of all types of building is quite overlooked.

With the majority of municipalities the town engineer is still looked upon as a qualified architect with disastrous results in most cases, whilst the value of a qualified architect's services has not yet been fully appreciated as is the case overseas.

The profession is still overcrowded with members who appear to have little respect for professional etiquette or ethics and give little or no encouragement to their juniors. Could we not make an earnest appeal to members to co-operate in these matters which, if tackled in the right spirit, must eventually benefit all.

During the year the Transvaal Provincial Institute has done magnificent work in generously assisting many of its members in straitened circumstances. It is in times like these that the need of a well endowed benevolent fund is absolutely essential and we urgently appeal to all members to contribute to this fund whenever possible. Here again concerted action is required.

It amazed me to see how well organised was the profession in America to cope with a similar problem, in comparison with which ours pales into insignificance. I was informed by the President of the New York Chapter of the Institute of Architects that every member of the profession, who had suffered as a result of the depression, was well provided for. This was made possible by the concerted action of all members ably assisted by the ladies.

In every large centre organisations existed which carried out their work in a remarkable manner. Our benevolent fund should be encouraged in every possible way and more particularly should every effort be made in boom periods to swell its coffers. There are many ways in which this can be done, but in the past little encouragement has been given to the Trustees in their self sacrificing efforts.

Very little architectural work of outstanding merit or importance appears to have been carried out during the year. In Pretoria one or two large Government buildings have been erected. In Johannesburg the new Railway Station is perhaps the most important addition to the City, whilst in Cape Town the most notable building is the new Reserve Bank. It is hoped to illustrate these more important buildings with plans and photographs in the near future. Few important commercial buildings have been erected during the year and the construction of flats in the larger centres appears to have been carried out by speculators, in most cases in the worst of bad taste. It is only after a visit overseas that the low standard of taste in

architecture in South Africa is brought home very forcibly. One cannot help feeling, however, that the time must come when some enterprising individual or company will take the matter in hand and erect flats and hotels which will be an indication of an improved public appreciation of architecture. It was interesting to read recently the comments of the Union High Commissioner, in London, on the subject of our hotels which must always be the stumbling block in the encouragement of tourist traffic from overseas.

Since the commencement of last year the "Record" has been published as a monthly journal and has proved an unqualified success. Not only in this country but overseas appreciative opinions have been expressed on the general improvement of its form and subject matter. The Transvaal Provincial Institute has now decided to send a copy each month to every practising architect in the Union with the hope that members of the Institute throughout the country will assist the publication by contributing articles and expressing their views on matters of professional interest. It is hoped during the year to still further increase the attractiveness of the journal and widen its scope so as to include all matters of artistic interest. Our thanks are due to the acting editors Messrs. Martienssen and Lefebvre for their splendid and arduous work during the year. We should also like to take this opportunity of urging members of the profession to support the advertisers in the "Record" whenever possible.

Town Planning is at last coming into its own and the Transvaal Town Planning Association is to be congratulated on the passing of the Transvaal Ordinance, the result of many years of tireless effort on their part. It is encouraging to see the interest being displayed by many municipalities in the subject which augurs well for the future well being of our town and city dwellers. In a new country such as ours, if we except the Cape Peninsula and its environs, a great deal depends upon the satisfactory lay out of our urban areas both from the point of view of the inhabitants and the interest and attraction to visitors. The conservation of water, the planting of trees, the avoidance of monotony in the general lay out are all-important factors which make for the health and well being of the community.

In conclusion we take this opportunity of wishing our readers and advertisers a prosperous New Year.

a letter from mr. w. g. lansley

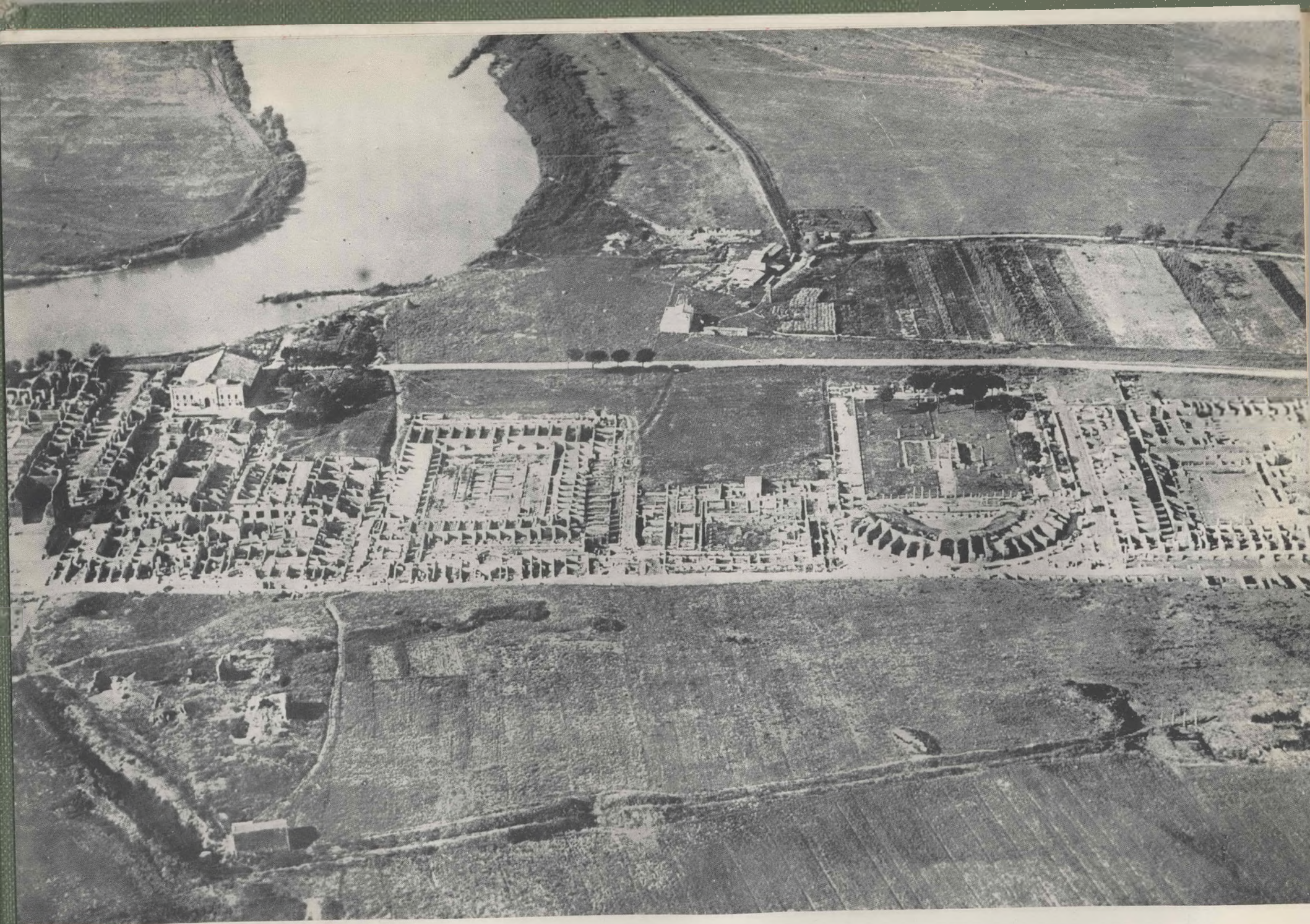
With the proposed introduction of a new cover and title for the above journal offering such a grand opportunity to introduce to the public the activities of the profession, an extraordinary effort should be made to popularise our journal outside of the present limited sphere of the profession. The fact cannot be gainsaid that it is from the public that we derive our existence in face of our apparent disinterest and aloofness of public opinion, nor is it fair for the profession to keep the public unadvised of the magnitude of the essential services of the architects to the public welfare.

The concensus of public opinion of the value of the architectural profession is altogether at variance with its true purpose and value ; this is entirely the fault of our profession in its mistaken ideas on the question of equity and the fear that popularising the profession may appear too much like advertising and unprofessional conduct, yet the work of an architect being such a necessary factor of the public life in its provision of shelter as a secondary necessity of life, the public has every reason to be made acquainted with the nature and advance of the architect's services to the community at large.

All advanced minds know that we are on the eve of an evolution and the public should be made aware that the architects are not lagging behind or unmindful of the future demands of civilisation and are bound together as an Institute in their endeavour to assist in the solution of our economic future. They have been amongst the first to rise from the ashes of the past and to scrap dead and gone traditions, orders, types, etc., and are well in advance in their visualisation and their determination to meet the needs of the future as evidenced by the modern trend of architecture. Their interest in civic planning and their co-operation with all branches of science and engineering, not excluding the arts and crafts, has after centuries of stereotyped architecture, shaken off the shackles and is a century ahead of all others in the solution of the economic future and the requirements of clients. Some of the younger members and students are well advanced in this respect and their articles breathe the very life of advanced mind made manifest, and no stereotype can hope to stem the tide of evolutional advancement.

There then arises the question in the mind of the public that architects' fees are out of proportion for services rendered, especially on small contracts or part services in respect thereof. A whole treatise could be written on this subject and every point would go to prove that in every case the architect's client benefits in every respect over the ill advised individual who dispenses with the architect. In a word architecture can bring the public to a realisation of its true worth and the absolute essentiality of the trained minds embodied in the architectural profession. We want the sympathy of the public and their support in all matters pertaining to our profession and this we can never achieve while our light lies hidden under a bushel.

Admitting that some, if not all, of the premises advanced subscribe the position of the profession, the question arises, how otherwise can the public become acquainted with the aims and objects of the profession but through its Journal wherein we can vindicate our profession by co-operative justified assertion. This necessitates a reorganisation of its publication and management in order to create a public demand for increased circulation and its inclusion on every bookstall in South Africa. Many factors will have to be carefully considered, many old ideas will have to go by the board and many new ideas will be evolved. Members and students of the profession and the allied arts and crafts must be individually bound to subscribe their quota to its columns and the practice of contributing private articles to the Press will have to be considered by the governing bodies concerned. Above all the journal must be made to "throw its weight" and justify its inclusion in all professional, educational, scientific, art craft, engineering, cultured and domestic atmospheres. This will appear to some as a catastrophic plunge from a quarterly journal of twelve months ago, but our monthly journal has more than justified its publication and now we expect that the journal shall justify our profession. We have all the material ready assembled, let us get together and throw our weight.



ancient ostia aerial view of ruins looking n.w. • photo alinari roma

a roman construction • norman eaton

The following article does not pretend to be more than a concise explanation of the results I arrived at in attempting to reconstruct a certain group of ruins known as "The Baths of the Forum" in the ancient Roman town of Ostia. A few comments on certain points of particular interest, however, have been added.



To those interested in these things, it may also be an indication of the manner in which work of this description is carried out.

It is assumed, moreover, that the reader has pre-knowledge of the form and general functions of the large bathing establishments or "Thermae" of ancient Rome, such as those of Caracalla, Diocletian, and Titus which the Ostian establishment in many respects resembles.

An illustration accompanying this article shows an aerial view over a section of the partly excavated town. Unfortunately it was not possible at the time to obtain a view sufficiently recent to show the "insula" of ruins in which the " Thermae " occur, in its excavated state. This "insula" is to be seen at the left hand bottom corner of the view, with only the tallest parts of the ruins—e.g., the two-storied Cistern, parts of the Great Eastern Vestibule and parts of the Laconicum —standing above their overburden of debris. To the immediate left of this and terminating the long main street of the town—the Decumanus Maximus—may be seen a part of the Forum, while beyond the ruins is the Tiber, flowing, as indicated on the diagram of the excavations, in a course different from that which it followed in Roman times.

Other illustrations show parts of the excavated ruins of the "Thermae" as they exist to-day, and also some reproductions of my reconstruction drawings referred to in the following text.

I should like, before continuing, to acknowledge the courtesy shown me by Signor Guido Calza—Director of the excavations at Ostia—by whose kind permission I was allowed to work on the site of the ruins.

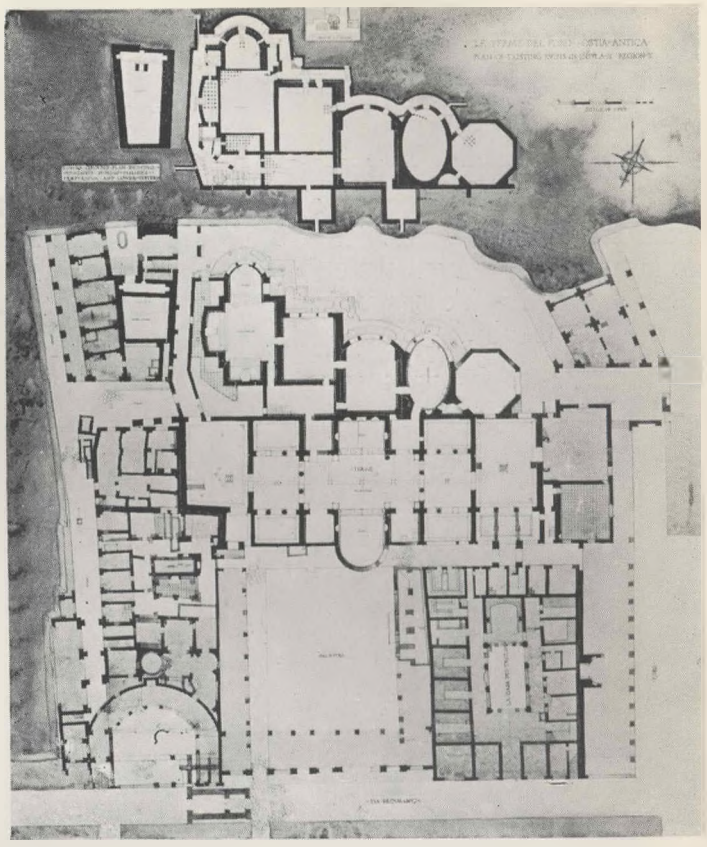
The Thermal establishment which I have attempted to reconstruct forms part of an " insula " of ruins in the ancient seaport town of Ostia, sixteen kilometers from Rome. This " insula " (No. 12 in the archeological grouping) is situated on the South East side of the Forum and is the most recent section of the ruins to be excavated.

These ruins consist of brick-and-concrete walls of various periods standing anything from one foot to twenty-five feet above ground with facings well preserved ; a few portions of vaulting ; considerable portions of mosaic pavement, and fragments of marble and other pavement ; considerable remains of marble columns and some fragments of marble ornamentation, mouldings, etc.

My first procedure was to make a survey of the whole of the " insula " containing the " Thermae". This was done by means of tape measurement, compass and theodolite in the usual way, detailed dimensions and levels being taken and the " insula " plan, showing the whole of the ruins as they at present exist, being prepared. Following this, a careful examination of all the materials and methods of construction of the existing work was carried out with the assistance of an archeologist, and the dates of their origin as nearly as possible fixed. From the information so obtained the reconstruction drawings of the "Thermae" were prepared.

These, as will be noticed, treated the buildings as more or less plain constructions, the few remaining fragments of ornamentation being hardly sufficient to justify any accurate attempt at a restoration of the original decoration, although due consideration was given to such of these fragments as affected or as verified the structural composition.

As a result of archeological examination, and comparisons with known dateable buildings elsewhere, it was found that the original construction of the " Thermae " took place sometime during the reign of Commodus (180-190 A.D.) and that the form of its plan was very little altered through all subsequent periods. Extensive repairs and minor alterations, necessitated by fires, collapse of unstable vaulting and so on, appear to have been carried out later by Septimius Severus and Caracalla, and finally Constantine added the semi-circular apses to the



insula plan • above sub-floor plan of heating system



the frigidarium looking west
• view a on plan

Frigidarium and Calidarium, covered the then open stoking passages with vaulting, and constructed an arched porch to the North West entrance.

The occurrence of fires in certain of the " hot-rooms " was partly indicated by the presence of lumps of unslaked lime in the concrete and mortar, evidently the result of the calcination of marble aggregate "in situ".

While it was difficult at first to explain why fires should have occurred at all in structures of this kind, composed as they were, almost wholly of concrete and brick with marble, stone and mosaic finishings, it afterwards became clear that these fires would have originated in the honey-comb of heating-flues which lined the walls and certain of the vaults. Remains of a heavy carbonic deposit were traceable in some of the flues. This " sooting-up " would be the natural result of the burning, in the furnaces and stokeholes, of such readily inflammable substances as resinous woods and pitch, which it is known were used for this purpose. This deposit—as is instanced by cases of soot-ignition in chimney stacks to-day—would eventually become a glowing redhot mass with disastrous results to the wall in which the flues were imbedded.

Regarding the plan of the " Thermae " this is well preserved in the remains as they exist to-day, and there was no need for conjecture anywhere in my reconstructions except in minor instances when I reverted to what, after careful study of the brickwork, mortar, etc., appeared to be its form before any of the final alterations took place. This happens in the case of the Great Western Vestibule, where I have disconnected it from the rooms facing the Forum—not originally part of the establishment. It will be noticed, however, that I have retained Constantine's apsidal additions to the " alveii " (piscinae) in the reconstruction drawings except in the case of the Laconicum-Frigidarium Section where one of these has been omitted from an " alveus " of the latter room.

The reconstruction of the superstructure was more difficult. Except in the case of the large lower Cistern to the east of the Calidarium and the subterranean stoking-passages, no complete vaulting remained, but there were sufficient indications at various points to fix the form, nature and height of

practically all that which I show. These indications were in the form of fragments of fallen vaulting giving radius and material ; traces of springings " in situ " and a general rule which seems to have been observed throughout this particular structure of raising vaults from bonding-courses.

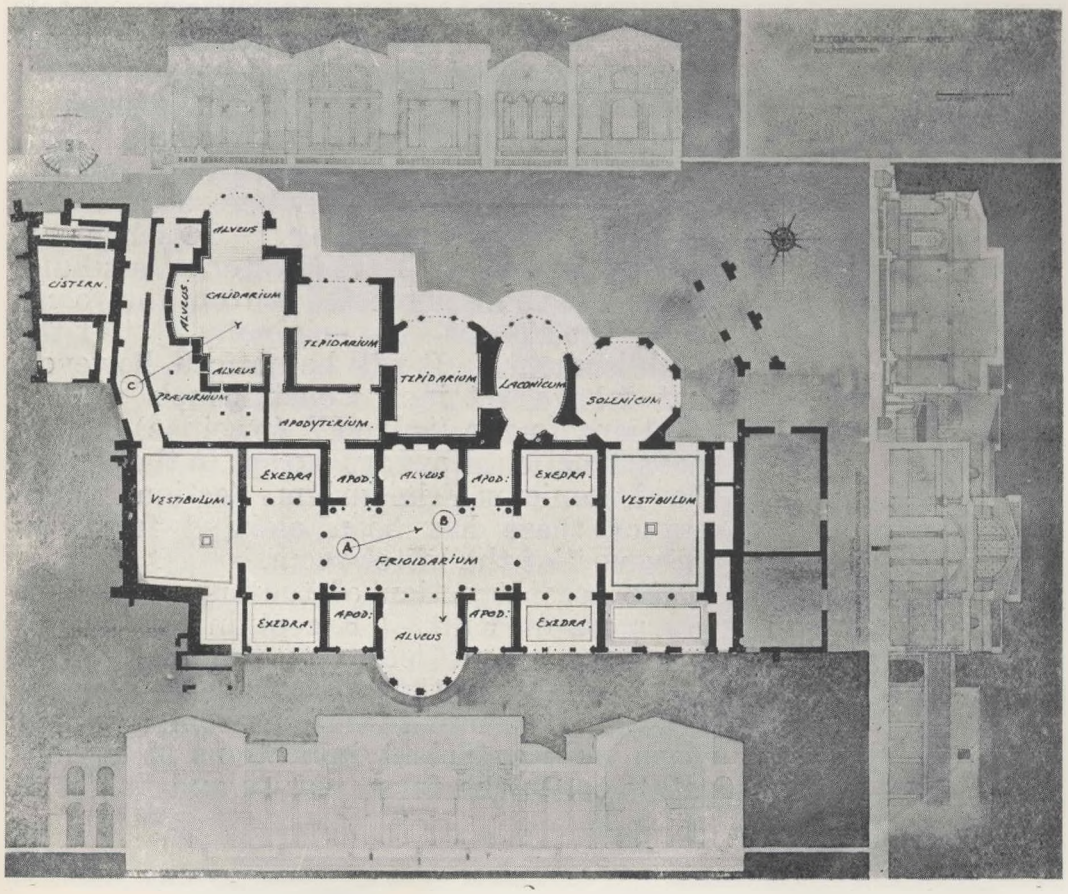
The few cases which could not be fixed in this way were tried in various ways until the most perfect fit was secured and the intricate system of vaulting completed. This system eventually proved to be an ingenious one with its interplay of stresses so arranged as to make the vaults interdependent and minimise as far as possible the use of isolated buttressing.

In only one case was there any reason to believe that a wooden roof construction had been used. This was over the large octagonal room (which I have designated Solenicum or Sun-room) on the south side of the Great Western Vestibule, where inadequate wall-thickness and the absence of buttressing of any sort would seem to exclude the use of solid vaulting. Here I have indicated a combined plaster vault and wooden roof such as Vitruvius describes.

The nature of the roofing was ascertained from a variety of information obtained on the site of the ruins. Fragments of tiles bedded in fallen vault-concrete indicated the roof covering and fixed its pitch. Downpipes bedded in the walls indicated not only the rainwater disposal system, but largely assisted in determining the external forms of the roofs and thus, indirectly, verifying that of the vaulting beneath them.

The positions and dimensions of the window openings were determined by existing reveals, cills, mullions, etc., or indications of such. The generous size of these openings is worthy of note. This conforms with a development which had been gaining favour many years previously in Pompeii just before its final destruction, and which was perfected later in Rome.

Particularly large are these openings lighting the " hot-rooms " on the South, where the somewhat ragged shape of the plan—puzzling at first when compared with the fine symmetrical arrangement of the Main Hall (Frigidarium) and its flanking vestibules—seems to have been the result of an attempt to admit the maximum of afternoon sunlight into these rooms.



reconstruction plan of thermae with sections

above • section through ' hot rooms '

below • section through frigidarium and great east and west vestibules

side • section through calidarium, praefurnium frigidarium and palaestra

photos •

view b from frigidarium over palaestra towards decumanus

view c looking down into calidarium.

The bronze latticed windows I indicate are purely conjectural following the form of those generally believed to have been used in contemporary Roman Work. I found, however, in the excavations, fragments of rectangular plate-glass about three-sixteenths of an inch thick, which most probably formed part of the original window glazing.

Door openings in all cases existed and over some of them the lintel and relieving-arches remained intact, so fixing their heights. Fragments of marble skirting, dado-moulds, linings, architraves and so on, indicated the door and window furnishings.

Sufficient remains were visible of mosaic and slab-marble paving to determine how and where this was used, and numberless tiny cubes of glass mosaic, in a variety of colours —blue and green predominating—which were found scattered about the ruins told of the elaborate decoration which must once have covered the walls and vaults above the marble dados. Some of these cubes were beautiful in colour and showed signs of having been cut from what must originally have been glass vessels and ornaments.

Columns, wherever shown, existed either in whole or in part or there were sufficient indications of base-blocks to fix their size and position. An unusual pier-cap treatment in the south window opening of the large rectangular Tepidarium was to be seen, where Dolphins—draped almost in the manner of swags—supported the abacus.

An interesting discovery was the purpose of the deep narrow compartment adjoining the large superimposed Cisterns at the south east corner of the "Thermae". This seems clearly to have housed a waterwheel the purpose of which was to raise water from the lower to the upper Cistern, from which necessary pressure was obtained to feed the pipe system serving various parts of the establishment.

Using the structural features of the compartment, I have reconstructed in it a wheel, based on a similar wooden mechanism used by the Romans, and found intact to-day, in their sulphur mines in Spain. The results are, I think, reasonably convincing. Other indications in this same compartment lead me to suppose that at a later period the waterwheel was superseded by a forcepump of some description, fixings for the platform of which were cut into the original brick facing.

The original lead feed-pipe connecting the Cisterns to the Main Baths Block was still in position, and in other parts of the establishment fragments of various lead branch-pipes could be seen.

It is interesting also to note that the Cisterns on the one side, and the octagonal Solenicum on the other, appear to have served the purpose of buttresses holding in the chain of vaulting which covered the " hot-rooms".

The heating system complete with Stoking-passages, Stoke-holes, furnaces and hypocausts was well preserved and although in places the latter were inaccessible, I was able to penetrate sufficiently far into them to determine with certainty the whole arrangement. Alterations which took place from time to time in this arrangement are interesting as showing the development, or at anyrate the change, which was made in the methods used to supply the hot air and hot water to the necessary parts of this system.

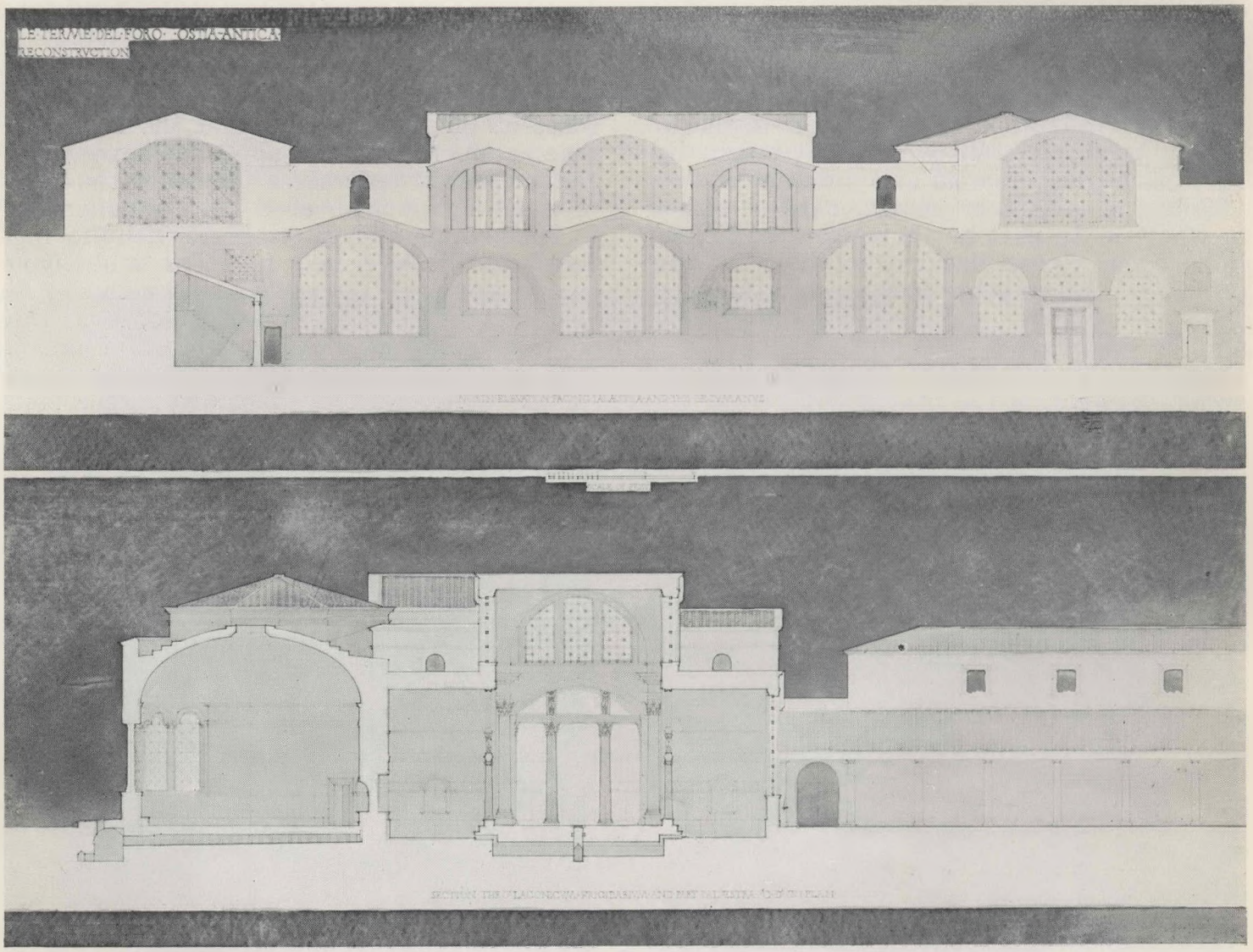


• view b on plan • photo eaton



• view c on plan • photo eaton

above • reconstructed north elevation facing palaestra
below • reconstructed section through laconicum frigidarium and palaestra



On the "insula" plan the caldron-stands are seen in the final position which they occupied in the Furnace-room (Praefurnium), while in the reconstruction I have placed them according to their primal arrangement. In the first instance they were placed directly over the stoke-holes serving the hypocausts of the Calidarium Alveii, with direct pipe-connections through the wall between these and the caldrons. Ultimately they were placed against the Praefurnium wall furthest from the Calidarium for the evident reason that the combined stoke-hole and furnace proved unsatisfactory. This was probably because the heat generated was inadequate to serve the dual purpose.

The construction of the hypocausts is identical with that prescribed by Vitruvius and used in the larger establishments in Rome. Large jaggered holes in the thick concrete floor of the Calidarium Alveii directly over the stoke-holes—(the rest of the floor was intact)—suggested that fitments of some sort had here been forcibly torn from their positions. These would most certainly have been the bronze semi-cylindrical super-heaters known to have been used and of which examples were actually found "in situ" in a Roman Thermal building excavated in Germany some years ago.

The hot-air flues in the walls in most cases remained intact to a height of about eighteen inches above floor but I was unable during my investigations to determine where and how these terminated. I am inclined, after visiting the Baths at Pompeii, to the idea that they were carried round the vaults in the case of the hottest rooms, and terminated at springing level in the tepid rooms.

Two distinct types of terra-cotta flue units were employed. Those about four inches by four inches by three-eighth inch thick and in sections twelve inches long were most favoured, but in the small Apodyteria on the south side of the Frigidarium, flat channel tiles about seventeen and a half inches wide with one and a half inch flanges and placed on end, were used to create the necessary hot-air cavity between the wall and its surface covering.

The waste and stormwater drainage could be clearly seen in a system of rectangular brick sub-floor channels, varying in size according to the required capacity. The largest of these—about eighteen inches wide and four feet six inches high—traversed the Frigidarium block longitudinally on its centre-line and had branch connections to the bathing-tanks (Alveii) down-pipes and floor sumps.

While considering the question of drainage it is interesting to note that a large Public Latrine adjoining the Baths—(e.g., in the Cas dei Triclini near Constantines North West Porch—see "insula" plan)—was served by a water-borne sewerage system.

The rows of marble seats lining the walls of the latrine discharged over a continuous channel which probably had a constant flow of water passing along it to carry away the sewerage matter. There are other instances in the town of private houses having had this system, in one case a single latrine being located on the first floor with a vertical connection to the channels below.

Another point of interest was the discovery on the premises of a large marble tablet recording, in list form, what appeared to be the names of members of a club or society. This gave rise to the theory that this Thermal establishment was at one time the property of a private body of some sort, to the membership of which it would have been necessary to gain admission by election and subscription in the usual way. Part of this list, which contained some unfamiliar names, ran as follows :—

S TELESPHORV S
S FORTVNATV S
S CHARIT O
S PHILIPPVSIV N
S SEVERIANV S
S ONESIMIANV S
S CISSV S
S ONESIMV S
S MENANDE R

In taking a general view of the group of ruins one comes to the conclusion that in so far as its structural composition is concerned and from a "heating and sanitary" engineering point of view, this Ostian establishment is a veritable encyclopaedia of the more complex Roman building practice. Beyond this there would be little to commend it. Fragments of decoration indicate a comparatively low order of taste, and the artistic effect of the interiors must originally have been rather garish and lacking in refinement.

It must be remembered, however, that Ostia was merely a depot of Rome—a place where the vast merchandise flowing in from all corners of the Empire rested a while before finding its markets in the capital and other parts of Italy. The majority of buildings were simply great warehouses and granaries. The rest would have served a populace composed almost wholly of the seamen and merchant type. It is not, therefore, to be expected that any decorative art arising out of the demands of a class of people such as this would attain the aesthetic heights of that found in great intellectual centres such as Rome. The merchant, preoccupied with the more material things and the seaman with the harsher and more physical things of life, would require, in their moments of leisure, stronger and less subtle sensual stimulants.

This fact, however, does not detract from the intense interest which is to be found in this relic of Roman civilization. It might, in fact, be considered something purely Roman in so far as its worthiest achievements are representative of that peculiarly sound, solid, businesslike attitude to life so nationally characteristic of the true Roman where he is uninfluenced by the more abstract culture of Greece.

In conclusion I would like to add that my endeavour in preparing the reconstruction drawing has been to adhere as closely as possible to the evidence afforded by the excavations and, I think, it may be safely assumed that most of what I have indicated has good foundation for its form and position.

professional notes and news.

annual meeting.

the sixth annual general meeting of members of the transvaal provincial institute will be held in the chamber of commerce board room, natal bank chambers, johannesburg, on tuesday the 14th march, 1933 at 3 p.m.

s. a. academy.

the fourteenth annual exhibition of works of art and the crafts will be held in the selborne hall, johannesburg, from the 24th april to the 6th may 1933.

the herbert baker architectural scholarship.

a detailed announcement of the next competition for the scholarship will appear, in the near future, in the daily press and in this "record." the competition is open to british subjects, not more than 33 years of age, who have completed six years in the study and/or practice of architecture of which period not less than four years have been spent in south africa.

intending competitors can obtain the form of application from the secretary to the trustees, care of the institute of south african architects, 99–100 stanley house, commissioner street, johannesburg.

Mr. Allen Wilson, F.R.I.B.A., has generously donated to the University Library, Department of Architecture, fifteen volumes (unbound) of Country Life. These periodicals as well as the books in the main architectural library are always available for the use of architects and students. The architectural library now numbers well over three thousand volumes and the Department will gratefully receive any books or back numbers of architectural journals for binding or filing purposes either as a permanent acquisition or on loan.

Other recent acquisitions are a complete set of bound volumes of "Academy Architecture," "English Furniture of the 18th Century," by H. Cescinsky ; "The Carved Stones of Islay," by Graham ; "Irish Ecclesiastical Architecture," by Arthur Champneys ; "Old English Doorways," by Davis and Tanner, all the gift of Mr. D. M. Burton, F.R.I.B.A.

Mr. D. M. Sinclair, F.R.I.B.A., left Johannesburg on the 18th inst. for Cape Town, en route to England, for a few months holiday.

Mr. Gordon Leith has returned from Europe where he spent some weeks in England, Germany and Sweden.

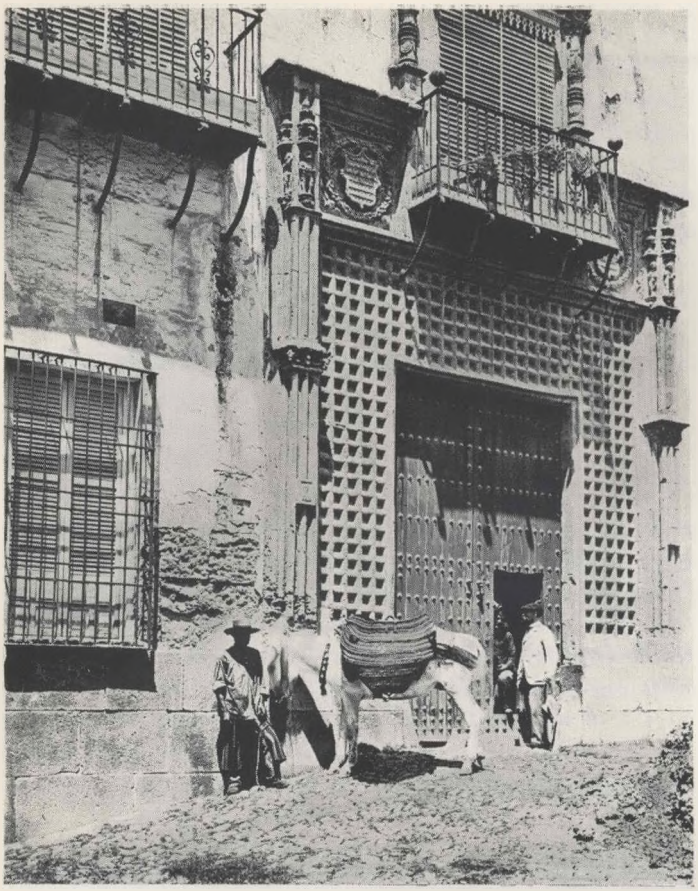
a building revival.

As anticipated, the figures for the year just closed show a marked reduction in the total value of building work done in Johannesburg.

The number of plans passed by the City Engineer's department in 1932 totalled 6,618, of a value of £1,978,804, compared with 6,936 plans, representing £3,600,969, in 1931.

Owing to the depressed condition of trade in 1932, and the fact that large sums of money went to London to secure the premium on sterling, very little building work of any consequence was put in hand. It is confidently anticipated, however, that when parity is reached, and money flows back from London carrying the gain made, much of it will be invested in building schemes, such as residential flats and blocks of office suites. Business firms will extend their premises and plan modernisation schemes.

The prospects, therefore, are good for a revival in the building industry in the near future.



casa–palacio del marqués de la fuensanta • photo garzón

the street of patios • henry c. tully

Throughout the beautiful city of Seville, one is struck by the sadness of a greater and departed glory. The Moors have gone, but the genesis of Creation remains. The greatest heathen temple on earth, from which the "Muezzin" were wont to summon the faithful to prayer, now gathers a Christian congregation beneath its lofty vaults.

The "Spirit of Islamism" seems to hang like an oriental dream over the old walled city ; it is reminiscent and redolent of bazaars and palaces ; of secluded Arab patios and delicate iron tracery ; of ceilings in cedar and sycamore set with mother of pearl and jewelled incrustations ; of walls sheeted with gleaming "Azulejos" ; of marble courtyards with pools and splashing fountains, and whispering watercourses ; and intermingled with it all, is the mighty heritage of Spanish chivalry, in splendid vestments and damascened armour ; of loving and fighting ; hatred and cruelty ; music and drama ; and this before the dawn of Mediaevalism. Tradition has been built up inexorably by centuries. The craft of the Moorish workman has been surcharged by his Christian conqueror, but the inheritance of the "Mudejar" predominates. We see it at all angles, in every patio and public plaza ; in every "Huerta" and "Zaguan," tempering the purism of Herara and mingling with the imported styles of the Gothic, the Renaissance, and the Moderns.

The "Patio" is in itself an institution, it is the solution to the prevailing climatic conditions, and answers to the Arab idea of a sequestered family life.

In changing from Moorish to Christian, the Spaniards retained the idea of seclusion and privacy, and to this day we find the houses of Andalucia arranged on the eastern plan, that is with the rooms built around a central courtyard, and divided vertically into both summer and winter quarters.

Throughout the "Calle Zarragoza" or the Street of Patios, one is rewarded by tantalising glimpses into exotic patio gardens. framed like bright colourful pictures beyond the massive "Cancellas" of lofty " Zaguans,"

The exteriors present an unruffled calm of staid and austere respectability. The elaborate "reja" or wrought iron grille to the lower or summer quarters, relieve the great spaces of plain plastered or stone walls, with here and there a blazing accent of colour or carving perfectly placed.

Surmounting the facade is the grace-note of the composition, the charming and characteristic celerestory, or arcaded balcony. Original and masterful in conception, it passes into the realm of Spanish architecture, as a necessary and clever innovation, whose direct utility has never yet been challenged.

From the street one passes through a massive oak external door, always open. It presents a perfectly flat surface, relieved by rows and rows of polished brass or iron bolt-heads. Sometimes these doors are arranged in duplicate, the inner service door having a brass kicking plate extending two feet up from the bottom, and outlined in some interesting Arab pattern by diminutive round headed brass screws. Occasionally the external door is constructed of heavily fielded panels, contained in a bold and striking architrave, with an iron grille or pierced brass porthole in the centre, or over the top of the architrave.

The wood panels show remarkable ingenuity in their disposition and design, sometimes being circular, or arranged in the form of a cross or other geometrical patterns. In some cases clever open-work brass hinges are displayed at top and bottom—but these are usually dummies, planted on the face, the actual door being hinged to the massive frame by a curious device, resembling a pierrot's cap and spiked to both door and frame.

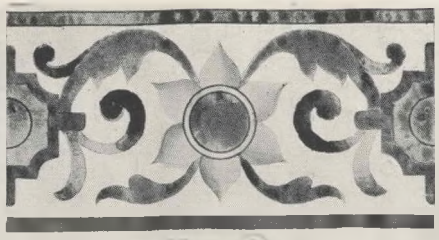
The preliminary room is the "Zaguan" or hall, which is exposed to the street. Here we find ourselves in a lofty apartment, provided with a seat in stone or tiles, with a pavement of cobbles, river pebbles, or black, brown and white marble to design, and with a ceiling almost universally beamed.

CLASSIFICATION.
ANDALUSIAN COLOUR TILES.
AZULEJOS.

MOLDURA RIZADA

TYPE A

SECTION



TYPE B
ALIZARES PINTADOS COLORES
[ELEVATION DEVELOPED]



TYPE F
COLORADO

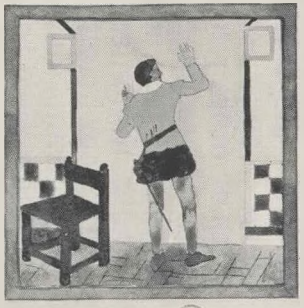


TYPE B
ALIZARES PINTADOS AZUL
[ELEVATION DEVELOPED]

SECTION

TIRAS

TYPE C



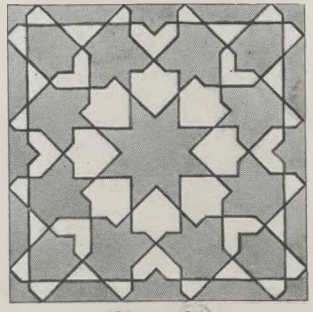
TYPE D

TYPE G



ALAMBRILLAS MONTERIA

TYPE H



TYPE E

COLORADO RELIHE



TYPE I



TYPE D
AZULEJOS SEVILLANOS
DE RELIEVE DON QUIXOTE



TYPE D



TYPE E
AZULEJOS SEVILLANOS
DE RELIEVE COLORADO



COLORADO RELIHE

TYPE I

These ceilings of the "Zaguan" are the real grace-note in their composition, and show remarkable originality and divergence. They may be classified under the following headings :

(1) Panelled wood ceiling—the soffites of the panels, being large polychrome tiles (see E), about fifteen cms. square—framed in a frieze of carved adamantine stucco (Ducal Palace).

(2) Arabian painted Moorish Artesonado ceilings of various designs. •

(3) Dark beamed ceilings with carved wood consoles against the walls—the soffites of the beams being treated with plain sinkings and painted in white, black and gold. The framework is relieved by a small cavetto mould, the top and bottom of which is treated in orange, and the curved portion painted in a simple Arabic design in black on a cream background. The splayed in portion of the ceiling panels is coloured with interesting rosettes, zig-zags or circles (Museo).

(4) A ceiling composed of small coved arches between the cross-beams, the cove either circular or deeply pointed, being returned at the ends (as in the "Hospital of Venerable Priests").

(5) Flat plaster ceilings in white with relieving bands of cadmium, orange, etc., at the sides, and a rich ventilation panel in the centre (Medinacelli Palace).

The size of the "Zaguan" varied in different cases—but was usually about ten feet by fifteen feet—though in rare instances to the larger houses of the nobility it was extended as an entrance corridor and allowed of a carriage being driven from the street right up to the "cancella" (Guzman El Bueno No. 9).

The massive doors of the "Zaguan" presented the first line of defence to the householder—if the invader could break down these, he had still to contend with the wrought-iron gate to the patio, and these could only be released by a secret spring controlled by a person somewhere within the building.

The "cancella" or wrought-iron gate is the fundamental feature of the southern Spanish house.

It is an example of perfect craftsmanship. It is executed in numberless designs (floral and geometrical) and painted in a variety of striking colours. Each householder seems to vie with his neighbour in its perfection of detail. It defies description.

Sometimes it is a masterpiece of intricate Arab cresting, with the initials of the owner or date neatly worked into the upper lunette, or perhaps it is a surpassing series of carved balusters and natural foliage.

The effect of the "Patio" glimpsed through these wonderful gates, gives a feeling of depth, mystery, and imagination and creates an impression on the nobler senses, that is in sympathy with the temperament of all Andalucia.

In front of the "Patio" hangs a clear-glass lantern—designed according to period, Gothic, Renaissance, Plateresque or Modern. It is built up of small prisms of clear-glass, in sections of elaborate sheet-tin, with cresting and piercings.

The "Patio" itself is often secured from the inquisitive gaze of the "man in the street," by an elaborate carved oak screen, with panels filled in with circular Arab trellis-work, and placed in front of the "Cancella."

In the Province of Seville we see two distinct and prevalent Courtyard schemes.

(1) With a columnar arcade round three sides only, the fourth side being a screen wall, with arches and Grille-work, leading to a small formal garden (Plaza Del Duque No. 15).

(2) With a cantilevered first floor patio corridor, supported on exposed wood beams, and further supported by rich wrought-iron brackets, with often a small classic cornice around with Sevillian colour tiles (D) in the Metopes (Meson Del Moro No. 3).

The ground floor or summer quarters is connected with the upper or winter quarters by an enclosed tiled staircase, opening directly off the Patio-walk, and in small houses, directly off the "Zaguan," when the

---

• "arte musselmana" jose rafols.

"Cancella" appears in diminutive form on the fourth riser. The treads of the staircase are of white "Azulejos" with coloured borders, and protected by nosings formed of heavy billets of oak, square in section ; the "going" being framed in a low tiled dado surmounted by a carved wood moulding in white.

The "Patio" is invariably square and sunk three or four inches below the level of the surrounding arcades. The floor is invariably executed in large white polychrome tiles or "Italica" mosaic or buff tiles with "Monteria" insets to herringbone pattern.

In the larger houses a geometrical design is outlined in tamped yellow-clay paths with tiled borders (B) and divided into beds for flowering shrubs and trees (Calle Antonio Diaz No. 6).

In the formal garden beyond, these paths are again repeated, with the "Tejaroz" or wall-hood with its characteristic blue and white glazed tiled roof over the "Semana Saint"' on an axial line with the entrance gate.

The ceilings of the patio walks (type 2) are composed of simple beams with groined or cloister vaults arranged in the corners. In the tiled fountain, the use of carved Sevillian tiles is exploited, in a riot of strong primary colours. The basin rises only a few inches above the paving, and is executed in various shapes—the elaborate brass nozzle rising like a vertical jet above.

The curb is usually about five inches deep and is provided with an exterior surface channel two inches deep—which draws off the water to an exterior water-course, and thence to a brass grating. The surface of the tiles (I) is kept wet and their reflective power increased, by designs such as spirals, chevrons, zig-zags, etc., besides giving to the water the appearance of more life and movement.

Around the lofty Patio-walk are lanterns and rich unframed oil-paintings, tiled-bank seats, and "Varqueno" cabinets.

The windows of the upper corridors are arranged with grilles for ventilation, or treated with balconettes.

The tiled Sevillian dado is a familiar enough feature and is about four feet six inches high—the colour supplied by these bright "Azulejos" makes unnecessary the fostering of flowers within, and planting is merely limited to vines, etc., that grow from earth-pockets at the base of the arcade piers.

The balance between plain white washed walls, tiled floors and splendid ceilings, and strong rich furniture ranged along the walls is quite perfect.

The living rooms are large and lofty with stucco friezes, barred windows, and formal hangings of damask and velvet, and doors and shutters of elaborate panelling.

Each room is considered, not as an architectural composition in itself, but as a framework or setting for the furniture and the people.

Velvet, damask, tapestry and Cordovan leather are used for upholstery, giving a remarkable note of colour ; and frequently great chests are covered with blue or scarlet velvet, bound and laced with steel, or brass, or gilded iron.

The following are a brief list of works on "Spanish Architecture" that should prove of interest to Architects.

The Works of "Byne and Stapley" (Hispanic Society of America).

"Spanish Architectural Details", by William Bottomley.

"Architecture of Southern Spain", by Austin Whittesley.

Works of A. F. Calvert.

"Spanish Gardens", by H. De Villiers Stuart.

"Through Spain Incognito", by Kurt Heissler.

"Cicerone de Sevilla," by Gestoso Perez.

"Arquitectura Espanola," and "Arquitectura," Spanish Journals.

"Spanish Gothic," by George Edmund Street.

"Arts and Crafts of Older Spain," by Leonard Williams.

"Spain," by Gustave Dore.



a courtyard • granada photo/garzón

book reviews

"The Villages of England," by A. C. Wickham. B. T. Batsford, London. 12/6

This volume is an attractive addition to the "English Life," series of publications by Messrs. Batsford, and to those who are interested in English country life and particularly the charming old world villages it will be most welcome. The author has dealt very fully with the geological formation of the country and its influence on the architecture in the various counties and as such it should prove of value to the architect and architectural student who are giving more and more attention to this aspect of the subject in dealing with domestic architecture.

Place names are dealt with in the earlier part of the work showing the influence of the various peoples who invaded or settled themselves in the country.

There are over one hundred full page illustrations and a number of pen and ink sketches by suuch well known artists as Messrs. W. Curtis Green and Sydney R. Jones. A geological map of the country is also embodied. The work is typical of the high standard of Batsford's publications.

"The Homes and Gardens of England," by Harry Batsford and Charles Fry. Batsford, London. 12/6.

This is yet another volume in the same series as "The Villages of England," and "The Cottages of England," and is certainly one of the most attractive of this series. As Lord Conway, of Allington, states in the foreword, "No one can turn over the pages of these books, so handy and comfortable to peruse and so freely and charmingly illustrated, without delight. Their cheapness is adapted to our present restrictions, and that without loss of quality, for which, moreover, the name of Batsford is an obvious guarantee." The book is in reality a concise account of the development of the English house and garden from the fourteenth to the eighteenth centuries and is almost an indispensible adjunct to the architects library.

The development of the plan is dealt with in the text and with one or two pen and ink illustrations and the references to historical documents make one wish that the authors could have dealt with the subject even more fully.

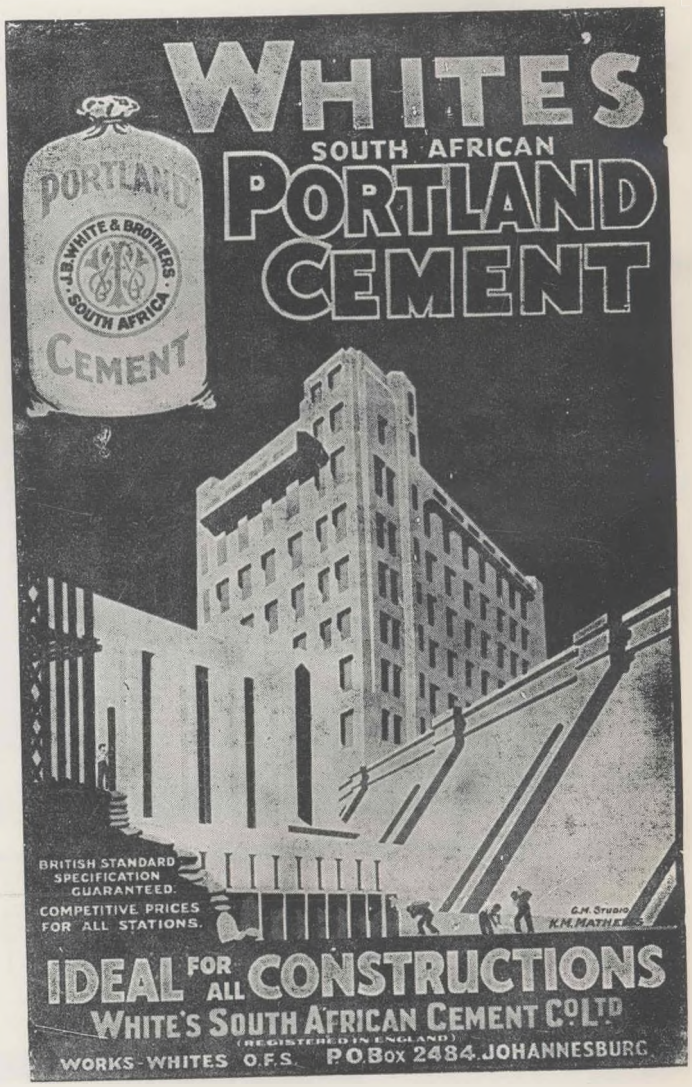
The examples illustrated are carefully selected and are fully representative of each period dealt with. Apart from the pen and ink sketches there are one hundred and seventy-five illustrations with a map showing the position of the houses illustrated.

PHONE (day) 459. PHONE (night) 37

G. E. GURNEY,

ELECTRICAL & MECHANICAL ENGINEER.

83, Queen Street,
PRETORIA. P.O. Box 37



Journal of the SA Architectural Institute

PUBLISHER:

University of the Witwatersrand, Johannesburg

LEGAL NOTICE:

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.