

Insertion of the New into the Old: Restoration Theory and Practice from Rome to Jarash

The methodologies and practice that we generically call 'restoration' – which developed in the west to allow the art and architecture of the past to endure over time – are a consequence of historical philosophies formulated in 18th and 19th century Europe.

In the realm of the figurative arts, whether sculpture, painting or architecture, the work is not only a document but also the medium through which perception is transmitted. On that basis, any intervention with regard to the work is also an intervention on the mode of transmitting the work itself¹.

Restoration implies the insertion of new material into an ancient context. This has been carried out on monuments of figurative art since time immemorial and cannot be contested except on the basis of implicit condemnation. However, we support the thesis that new artistic expressions should not be inserted into an ancient context. Such a prohibition cannot, however, be retrospectively applied to the experiences of a relatively recent past: *viz.* two centuries or so ago.

This attitude has its roots in 18th and 19th century historical philosophies, along with the chance rediscoveries of Herculaneum and Pompeii (1738-1748). It is known as 'historicism', a mode of thinking in which the basic significance of a specific social context – that is to say: time, place and local conditions – is central, in other words: historical consciousness. Historical reconstruction had previously been based almost exclusively on literary evidence (for example, the destruction of Pompeii was known only from Pliny the Younger's account of the eruption of Vesuvius), but at that time a new

historical consciousness arose which considered the material evidence of the past as a more reliable means by which to reconstruct and understand it. In this way, archaeological science was born.

As asserted by Cesare Brandi, theoretician and drafter of modern theory of restoration: "Once the historical consciousness of a monument of the past is acquired in our civilization, we can no longer invalidate it. Since it is not a transient attitude but a scientific mode of behaving of our conscience towards a monument, we can no more pull back from it than we could revert from the Copernican system to the Ptolemaic" (Brandi 1972).

When the Renaissance exhausted its creative vitality in the 18th century Neoclassical experience, an attitude arose which viewed the evidence of the past as the basis of a science and no longer as a source of inspiration. The birth of a rigorous scientific approach to the past, which imposed scrutiny of both textual sources and material evidence, produced a radical change in how monuments of the past were considered.

In the mid 16th century, for example, before this historical consciousness was acquired, Michelangelo transformed the ruins of the Baths of Diocletian in Rome into a magnificent Carthusian monastery (FIG. 1). Similarly, at the beginning of the 17th century, Bernini added two baroque bell-towers to the church of Santa Maria ad Martyres, formerly the Pantheon (FIG. 2), even though he considered the building the most perfect monument of classical antiquity and a source of creative inspiration. By altering the figurative image of the monument,

¹ The same cannot be applied to contemporary works of art or monuments. Starting from the second decade of the 20th century (Marcel Duchamp), our way of perceiving art changed radically. It is no longer perceived through the medium of the manual skill of

the artist, but rather through the exposition of a concept or idea. The creative process, now applied to architecture as well, resides in the project.



1. Rome: Baths of Diocletian (306 AD); the *tepidarium* as transformed by Michelangelo Buonarroti (ca. 1560) in Santa Maria degli Angeli.



2. Rome: Pantheon (126 AD), later Santa Maria ad Martyres (6th century); façade with bell-towers added by G.L. Bernini (ca. 1640), before their demolition in 1893.

Bernini re-invented it, giving it new life. He did not, in fact, consider the Pantheon as deserving only conservation; instead he intended reactivate it in order to preserve it.

It should therefore be clear why interventions made more than two hundred years ago can be considered acceptable. Recognition of the irreversible

state of present historical consciousness, which discourages us from intervening on an ancient monument except for the purposes of consolidation and preservation, obliges contemporary restorers to reject interventions that might alter the physical nature of any past evidence, unless aimed at preventing loss and / or improving comprehension.

Though not directly related to archaeological remains, which are the subject of this article, we cannot forget that, in the 19th century, different cultural approaches towards the figurative work of the past often arose within the same cultural milieu. These tended to become the subject of vigorous debate. In France, following the 1814 Restoration, Viollet le-Duc proposed 'in style' reconstruction of churches and cathedrals destroyed during the 1789 revolution². However, in England, John Ruskin romantically suggested that any effects of time on a monument, inevitably fated to perish, should not be touched.

In Italy, the Basilica of Saint Paul's Outside the Walls, which was almost completely destroyed by fire in 1823, was reconstructed in a chilly 'neopalaeochristian' style in 1869 after a long debate. In 1893, a revival of purist thinking led to the demolition of Bernini's Pantheon bell-towers, which contemporary Romans had irreverently dubbed 'ass's ears'. Again in Italy, later additions to early Christian churches were also removed -- along with evidence of the buildings' historical and architectural vicissitudes. Further debate arose after the sudden collapse in 1902 of the bell-tower of Saint Mark's in Venice, whose rapid reconstruction culminated with the slogan *com'era, dov'era* ("as it was, where it was").

Let us return to the subject of insertion of the new into the old, where the old is represented by monuments of classical antiquity that have lost their original function, be it physical or ideological.

The Rome School of Restoration

We can recognise the cultural attitudes described above in restoration works carried out in Rome at the beginning of the 1800s, whose methodologies were only later adopted further afield.

The first act of the new 'restoration science' was marked by the construction in 1807³ of a masonry

tres and Neo-Moresque for thermal spas.

² To Viollet le-Duc's reconstruction, restoration and editorial activity we owe the birth of the revival of architectural style, viz. Eclecticism, a movement which spread all over the world. Specific architectural styles often became linked to specific architectural functions. Thus, Neo-Gothic was preferred for religious buildings, Neo-Romanesque for university campuses, Neo-Baroque for theatres and Neo-Moresque for thermal spas.

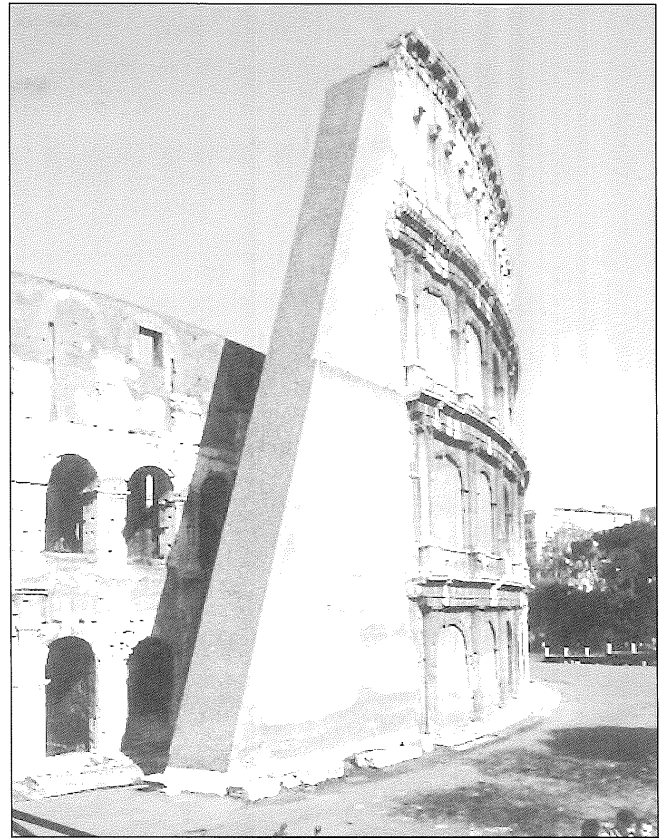
³ The tumultuous political climate was that of the Napoleonic age: the conflict of France with the Roman Catholic church, the occupation of Rome and of the removal of works of art (the 1726 and 1733 edicts of Cardinal Albani -- a true *ante litteram* antiquity law -- which would have prevented it were invalidated).

buttress against the south-east edge of the outer shell of the Colosseum (FIGS. 3-5). Its main aim was to halt spoliation of the monument, which had been used as a stone quarry for centuries, while at the same time preventing its collapse and loss.

Ten years later, Raffaele Stern, the architect who planned the buttress at the Colosseum and was later succeeded by Giuseppe Valadier⁴, began work on the Arch of Titus in the Roman forum. This monument had been partially lost, with the remnants incorporated within a medieval fortress. Intervention consisted of the *anastylosis*, or reassembly, of the few remaining stone elements on the ground and in order to achieve a reconstruction (FIGS. 6, 7). Missing parts were replaced with travertine stone instead of the original Greek marble, decorative mouldings were simplified and an inscription was added to the monument recording the date of the intervention (FIGS. 8-10).

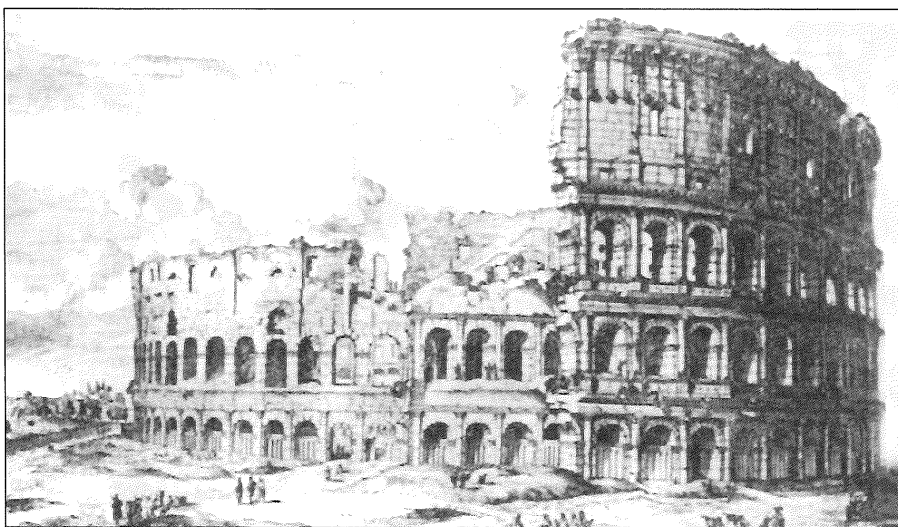
Back at the Colosseum, in 1826 Valadier started a series of works aimed at consolidating the preserved northern edge of the outer shell and inner wall of the second ambulatory ring (FIGS. 11-13). The brick buttress that was constructed recreates the design of the original arches, in which the capitals and bases of the superimposed outer decorative orders were made of travertine. Reconstruction of the ring was left incomplete; its edge was marked with indentations as a visual suggestion of where and how the structures would have continued (FIGS. 14-15).

In 1883, at the 4th Congress of Engineers and



4. Rome: Colosseum, south buttress (added 1807).

Architects in Rome, Camillo Boito promoted the first *Carta Italiana del Restauro* in an attempt to reconcile the British position of the anti-restoration movement with the French position of stylistic restoration. The main principles can be summarized thus: (1) differentiation between old and new, (2)



3. Rome: Colosseum, view from south; 18th-century engraving.

⁴ These two Roman architects (the first of Bavarian descent, the other Provençal) were descended from families which had settled

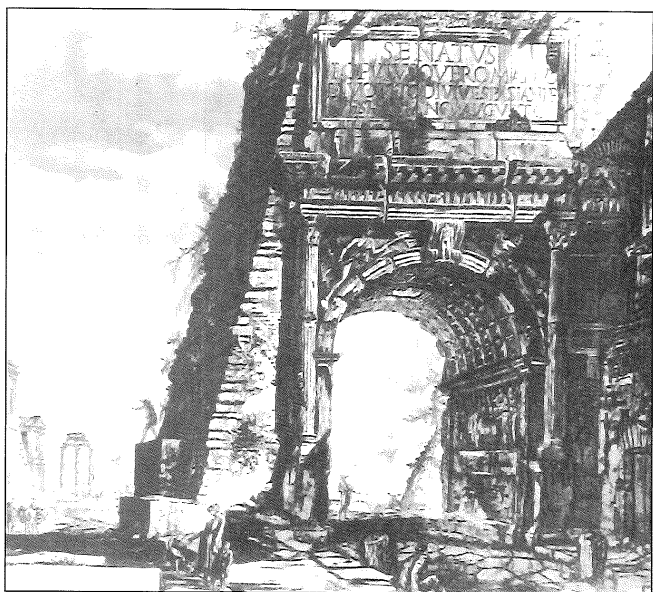
in Rome during preceding centuries. The Valadier were famous silversmiths.



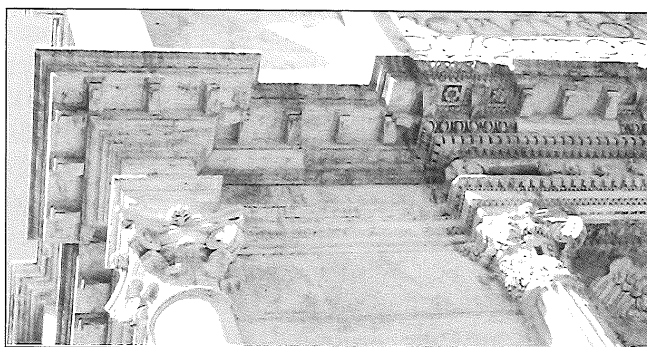
5. Rome: Colosseum, south buttress (added 1807).



7. Rome: Arch of Titus, restored 1817-1824, south front.



6. Rome: Arch of Titus; engraving by G.B. Piranesi (1750s).



8. Rome: Arch of Titus, details (simplified mouldings, different material).

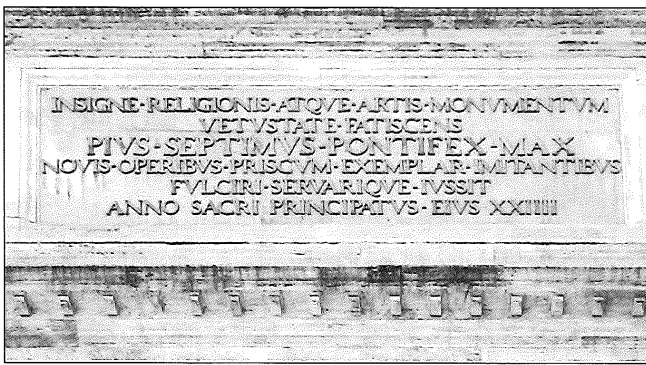


9. Rome: Arch of Titus, details (simplified mouldings, different material).

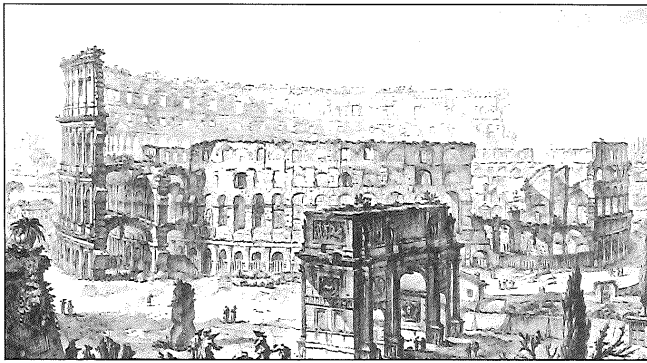
differentiation of building materials, (3) simplification of mouldings and decorations, (4) displaying replaced original elements beside the monument, (5) engraving the date of substitution on each replaced element, (6) a descriptive inscription on the monument itself, (7) description and photographic documentation of the interventions placed in the vicinity of the monument and (8) prompt publication and dissemination of the work.

Outside Italy, the earliest works on the Athens acropolis are also worthy of mention. In 1836, just a few years after Greek independence, the Temple

of Athena Nike on the acropolis was freed from additional masonry and restored by the German architects Ross and Schambert (FIG. 16). The clear-



10. Rome: Arch of Titus, north front; dating of the completion of restoration (1824).



11. Rome: Colosseum, view from the north; engraving by G. B. Piranesi (1750s).



12. Rome: Colosseum, mid 19th century painting after restoration (A. Benoist); from the north.

ance from the rest of the site of overlapping Turkish buildings only began in 1890. At the beginning of 1900, Nikolas Balanos began the first restoration works at the Erechtheion, Propylaea and Parthenon (FIGS. 17-19). The intervention at the Stoa of Attalos II in the 1950s by the American School of Athens, though skilfully carried out, did not escape critical comment by supporters of the principle of non-reconstructive restoration (FIGS. 20-21).

In the period between the two world wars, restoration in Italy assumed the connotation of political propaganda. It is enough to recall the demolition



13. Rome: Colosseum, north buttress (1826-45).



14. Rome: Colosseum, north buttress (1826-45).

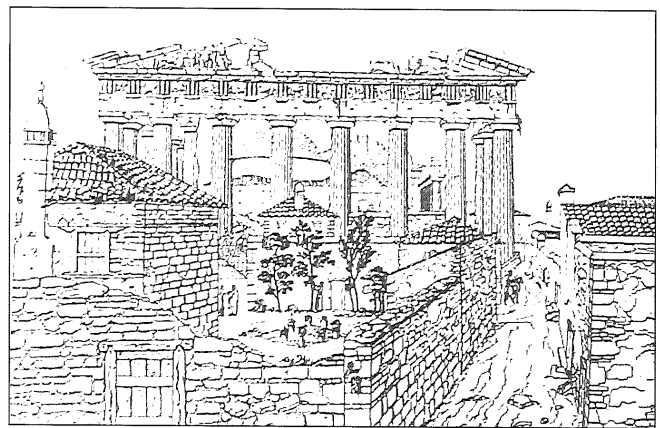


15. Rome: Colosseum, inner ring-wall (1826-45).



16. Athens: temple of Athena Nike after restoration (1836).

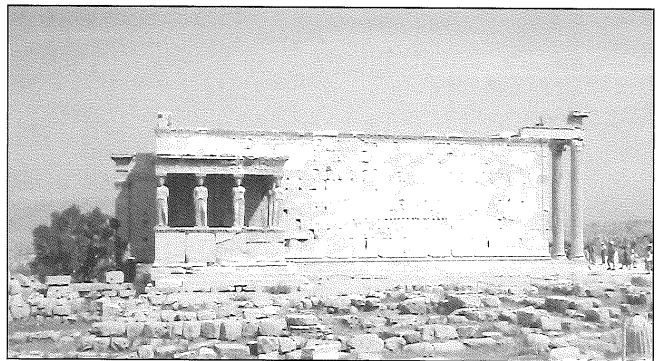
of entire city neighbourhoods in order to uncover the Imperial *fora*, or the excavation of the Velia



17. Athens: 16th century mosque within the Parthenon, before demolition in 1890s.



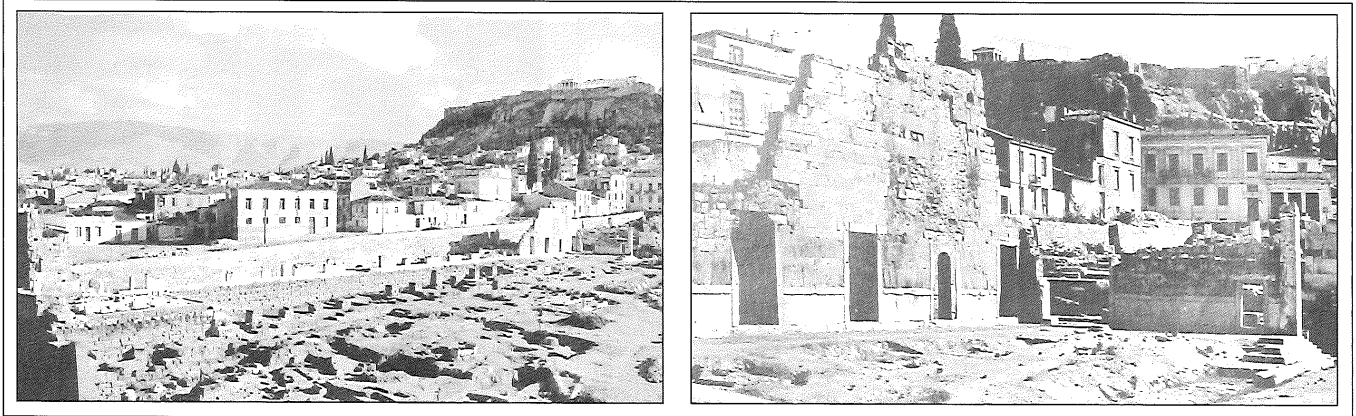
18. Athens: Erechtheion after removal of overlapping building (1890) and restoration (1950 - 1970s).



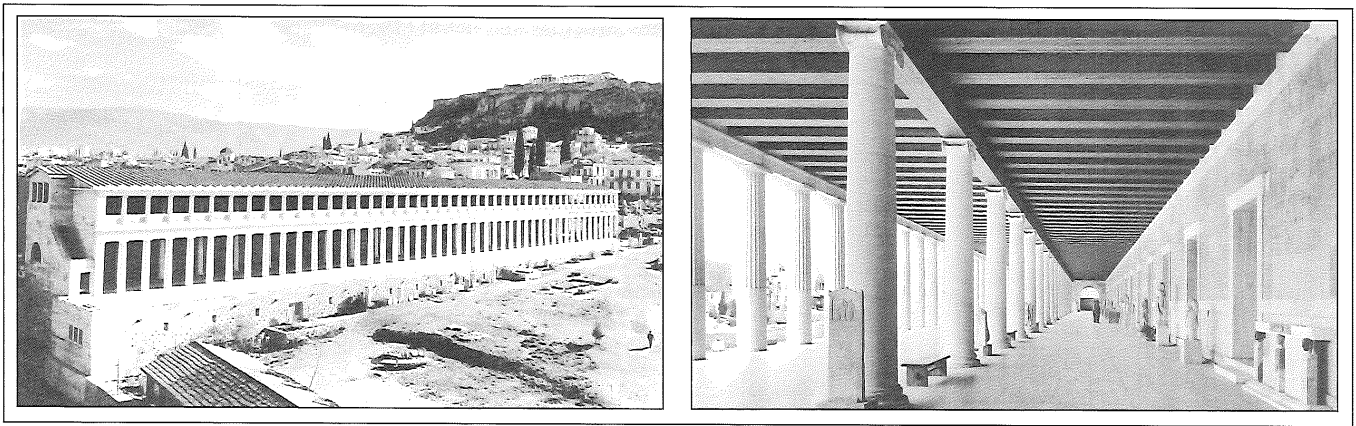
19. Athens: Erechtheion after removal of overlapping building (1890) and restoration (1950-1970s).

hill for the opening of a new imperial avenue, Via dell'Impero, in Rome. Amongst the restorations of this era, particularly noteworthy is the work in the Temple of Venus, whose lost columns were replaced by column-shaped shrubs (FIG. 22)⁵. Numerous restoration/reconstruction works were also carried out in the Aegean islands, east Africa and Libya during the short Italian colonial adventure.

⁵ The interesting intervention was planned by A. Munoz in 1934.



20. Athens: Stoa of Attalos II after excavation (1931); general view and detail.

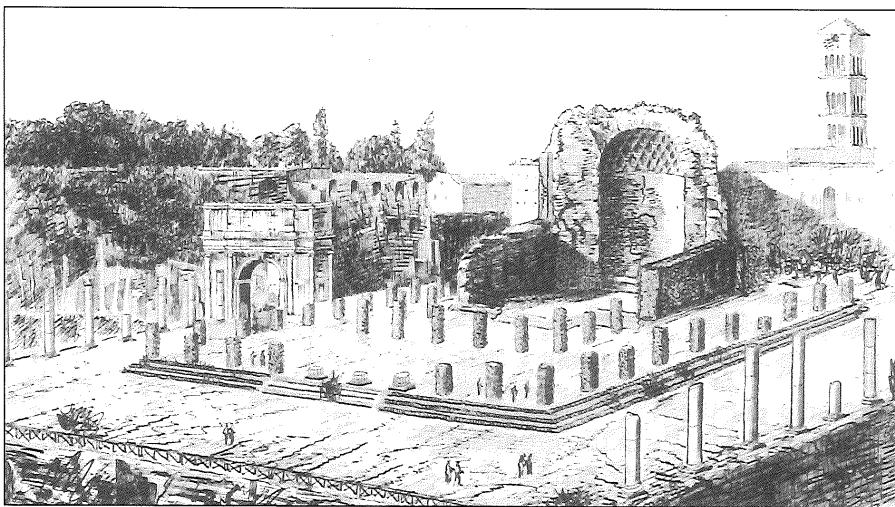


21. Athens: Stoa of Attalos II after reconstruction (1956); general and interior views.

Jarash 1925-1931

Between 1928 and 1930, the West Propylaeum of the Sanctuary of Artemis was restored by the British-American expedition to Jarash (1928-1934)

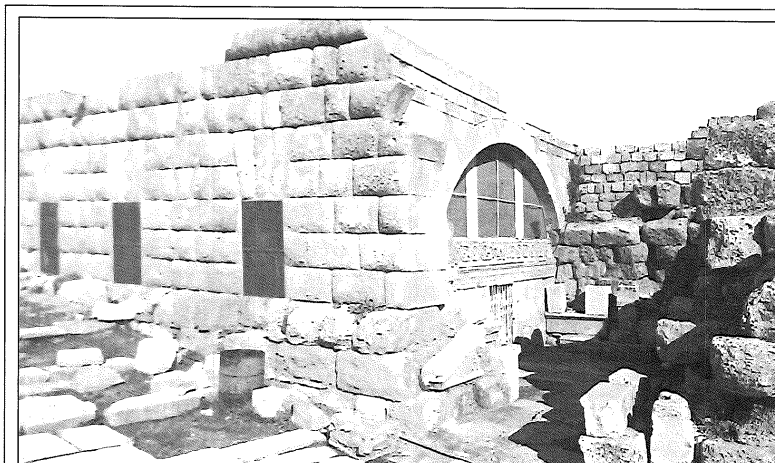
(FIG. 23a, b and see FIGS. 26-28). The work was begun in the summer of 1928 by Pierre Ricci⁶, who followed the methodological approach of the Rome School. On his death, in November that same year,



22. Rome: Temple of Venus; sketch of restoration project (1934).

⁶ The unfortunate Italian architect joined the Jarash expedition while he was in Amman with Barluzzi's engineering team (see internet

article *The Churches of Antonio Barluzzi*: 14-16).



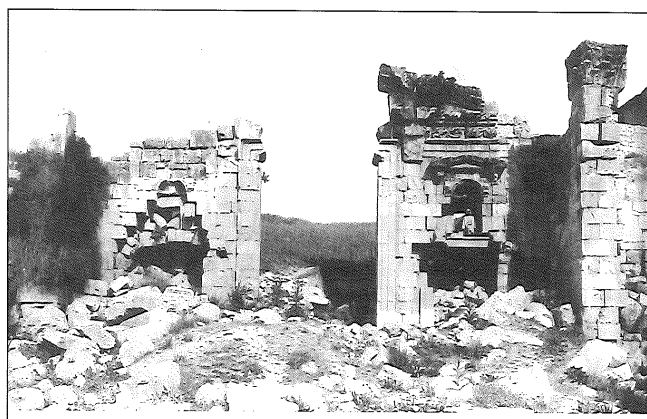
23a, b. Jarash: Sanctuary of Artemis; restoration of the southern sub-structure and detail (1926) (Parapetti 1990s).



24. Jarash: Church of St. Theodorus; reconstruction of central gate (1926).



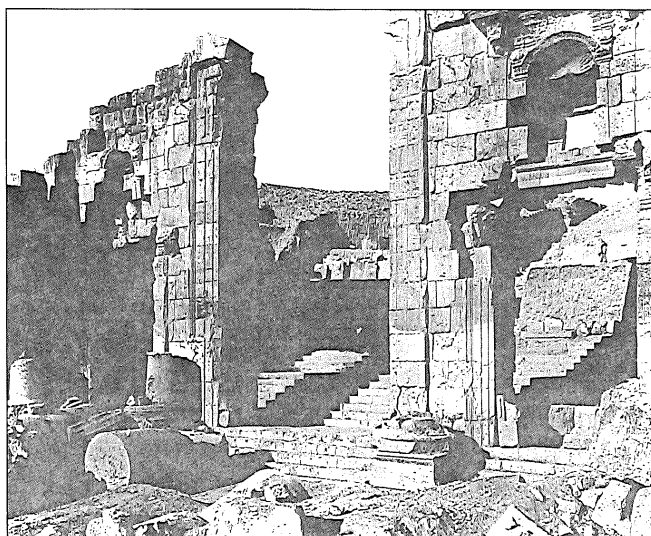
25. Jarash: Church of St Theodorus; voussoir of central gate still on ground.



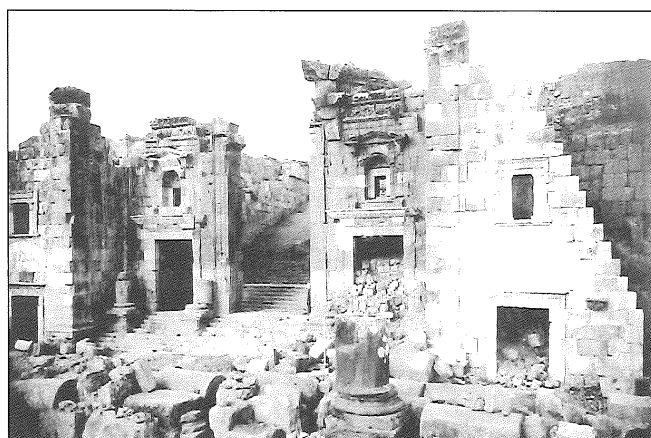
26. Jarash: Sanctuary of Artemis; West Propylaeum in 1890s (from the library on Congress photo archive).

the work was continued by A. G. Buchanan until 1930, followed by G. Horsfield until the spring of 1931 (FIGS. 29-32). For the first time, restoration work on monuments of classical Antiquity was done in the Middle East according to the Roman cultural approach. Uncovered architectural elements found

on the ground were put back in position and missing elements were replaced by new ones, without moulding details (FIGS. 33 and 34). Unfortunately some misinterpretation occurred (Parapetti 1986), largely as a result of incomplete excavation. In



27. Jarash: Sanctuary of Artemis; West Propylaeum in 1890s after excavation in 1928 (Yale photo archive).



28. Jarash: Sanctuary of Artemis; West Propylaeum after restoration (1928-31) (Kraeling 1938).

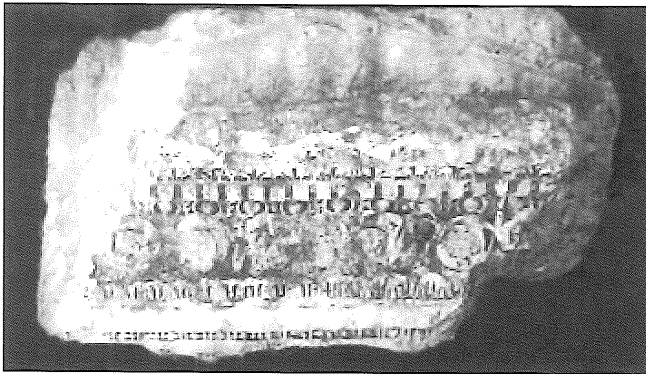
truth, this work was not the first intervention at Jarash on the principle of ‘insertion of the new into the old’. Between 1925 and 1927, after the establishment of an antiquities office, minor consolidation works were undertaken by Horsfield in the South and North Theatres and on the lower terrace of the Temple of Zeus. In 1926, the vault supporting the southern part of the upper terrace of the Sanctuary of Artemis was partially rebuilt to create space for a *lapidarium*. A new wall was constructed and the beautiful epistyle of an unknown building was ‘romantically’ inserted within it (FIGS. 35). In the Church of St Theodorus, fallen columns in the nave were re-erected and three portals in the west wall of the church reassembled (FIGS. 24, 25). However, there were problems with the work on the lintel of the central portal. Although one of the



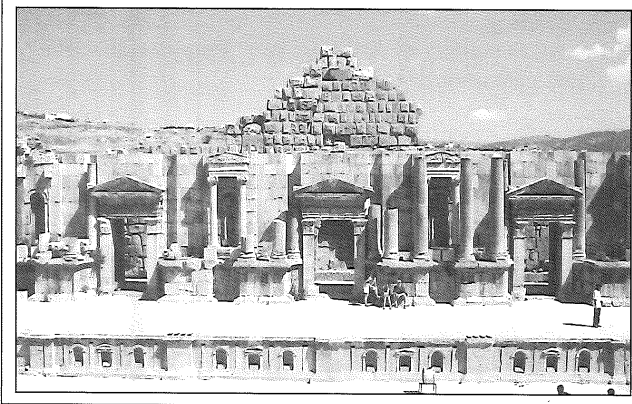
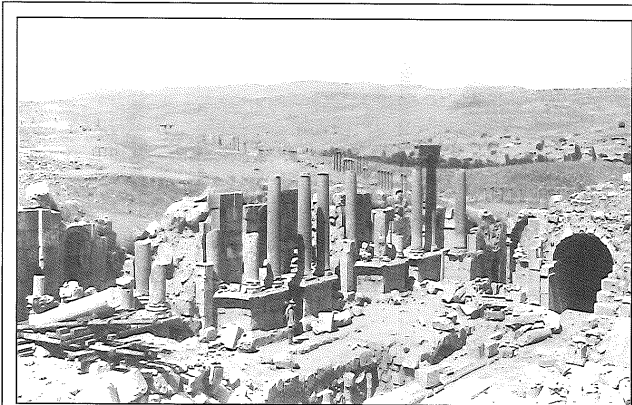
29. Jarash: Sanctuary of Artemis; West Propylaeum, detail of south gate after restoration.



30. Jarash: Sanctuary of Artemis; West Propylaeum, detail of south niche after restoration.



31. Jarash: Sanctuary of Artemis; West Propylaeum, entablature of the south niche discovered in 1980s.



32. Jarash: South Theatre after excavation in 1930s and after restoration (1950 and late 1970s).

elements forming the original flat arch lintel of the portal still lay on the ground, the door lintel was replaced by a 'frieze' bearing the church's dedicatory inscription, which was necessarily supported by a reinforced concrete beam (FIGS. 36-40).

The Athens Charter

In 1931, at the first International Congress of Architects and Technicians of Historic Monuments, held in Athens by the International Museums Office, a number of recommendations were made regarding



33. Jarash: Temple of Zeus; lower terrace, restoration of north wall (late 1970s).



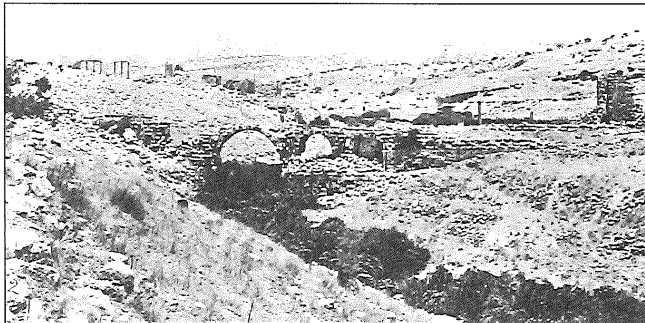
34. Jarash: Temple of Zeus; lower terrace, restoration of east wall (1980s).

the conservation, preservation and restoration of ancient monuments: the so-called Athens Charter. The following were the main points accepted by the international community, which were based on the practices used by the Rome School of Restoration for more than a century:

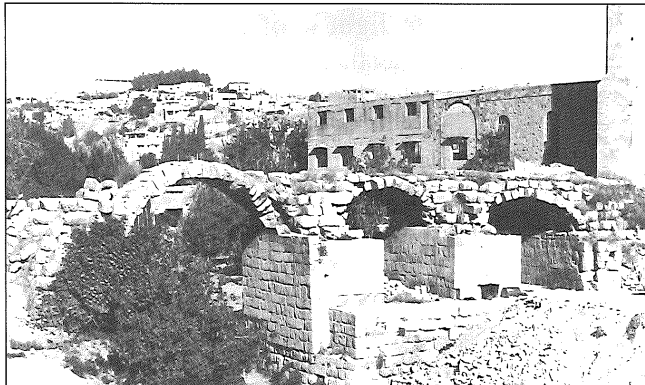
1. When restoration is necessary because of decay or destruction, respect for original historic or artistic work is recommended without proscribing the style of any epoch.
2. When the state of a monument permits, it is considered reasonable to re-erect recovered original



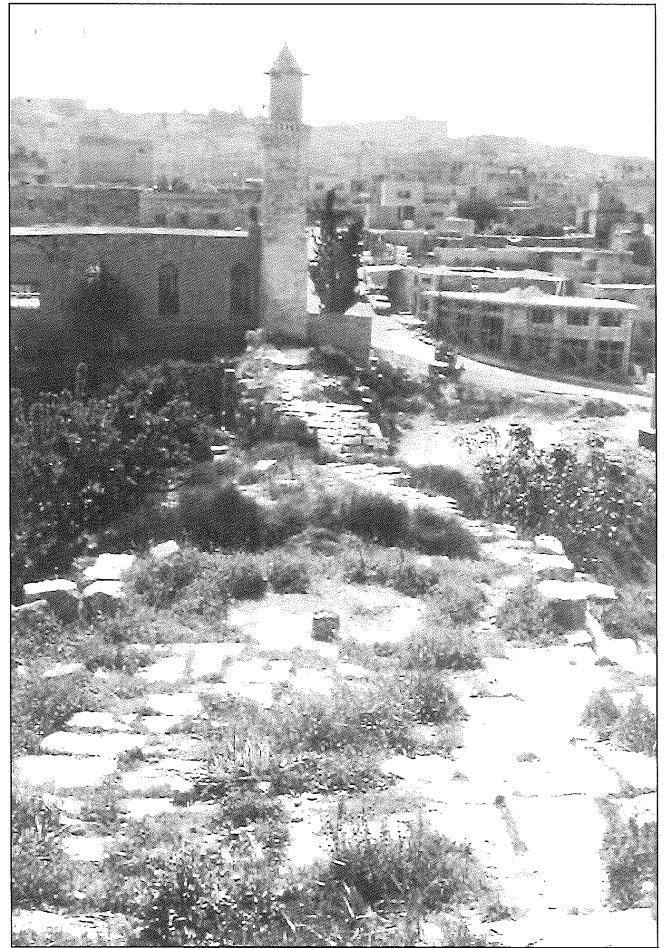
35. Jarash: Nymphaeum; detail of south column (x = corbelled drum).



36. Jarash: South Bridge in 1867.



37. Jarash: South Bridge; consolidation of east piers, from south (1960s).



38. Jarash: South Bridge; road in 1977, from west.



39. Jarash: South Bridge; reconstruction (1980s).

elements (*anastylosis*). Any new materials or elements needed should always be recognisable or concealed so that the aspect and character of the restored monument is preserved.

3. Excavation and conservation should involve collaboration between experienced archaeologists and architects, at international as well as



40. Jarash: South Bridge; reconstruction of road (1980s).

local level.

4. Before any consolidation or partial restoration is undertaken, a thorough study should be made of the nature of the deterioration of these monuments.
5. Total reconstruction is specifically discouraged.

Jarash 1934-1970

During the period between 1934 (conclusion of the Yale Expedition to Jerash) and the 1970s few conservation works were carried out at Jarash and still fewer are recorded or published. From the records of the Department of Antiquities, we find mention of the following:

1. Restoration in the Church of Saints Cosmas and Damian and the start of restoration work in the South Theatre (FIG. 32) (Kirkbride 1960).
2. Restoration work on the Triumphal Arch (see FIG. 66).

However, there is no mention of *anastylosis* work during the 1960s along the main colonnaded streets (several column-drums incorrectly positioned) and on the South Bridge (erroneous reconstruction of the spring of the central arch), nor of the reconstruction of the upper flight of steps in the Sanctuary of Artemis (wrong number of steps) and construction of the rest-house (now Jarash Museum) and visitors' centre (see also Zayadine 1986).

The Venice Charter 1964

In the meantime, the second International Congress of Architects and Technicians of Historic Monuments were held at Venice in 1964. The main statements of the so-called Venice Charter, which confirmed and added to the Athens Charter, were as follows:

1. Conservation of monuments is always facilitated by making use of them for socially useful purposes. Such use is therefore desirable, but must not change the lay-out or decoration of the building. It is only within these limits that modifications demanded by a change of function should be envisaged and may be permitted.
2. The process of restoration is a highly specialised operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It must stop at the point where conjecture begins and, in this case, any vital extra work must be distinct from the architectural composition and must have a contemporary stamp. Restoration must be preceded and followed by an archaeological and historical study of the monument.
3. Where traditional techniques prove inadequate, consolidation of a monument can be carried out using any modern conservation and / or construction technique, provided that its efficacy has been demonstrated by scientific data backed by practical experience.
4. The valid contribution of all periods to the monument must be respected, since unity of style is not the objective of restoration. When a building includes superimposed work of different periods, a return to its original state can only be justified in exceptional circumstances, i.e. when what is removed is of little interest and the material brought to light is of great historical, archaeological or aesthetic value.
5. Replacement of missing elements must integrate harmoniously with the whole, but must at the same time be distinguishable from the original so that restoration does not falsify artistic or historic evidence.
6. Additions are not allowed, unless they do not detract from the main interest of the building, its traditional setting, the balance of its composition and its relation with its surroundings.
7. Every effort must be made to facilitate gaining understanding of the monument and displaying

it without distorting its meaning.

8. All reconstruction work should be ruled out *a priori*; only *anastylosis*, i.e. reassembly of existing but not *in situ* elements, is permitted. Any material used for reassembly should be recognisable and its use should be restricted to the minimum that will ensure conservation of the monument and restoration of its form.

Although not specifically mentioned in the charter, a recommendation of the Italian restoration charter should also be noted, namely, the principle of reversible intervention, especially in pictorial or sculptural contexts (it is more difficult to apply to buildings).

Jarash 1970-1990

Since the mid-1970s, the Department of Antiquities has undertaken significant excavation and restoration work at Jarash⁷. Unfortunately a number of criticisms can be directed at some of those works. In the *anastylosis* of part of the east inner wall of the lower terrace of the Temple of Zeus, an odd, off-centre remounting of the stone grille-window above one of the arches can be observed (FIGS. 33, 34)⁸.

In the *anastylosis* of the south column of the Nymphaeum, which originally consisted of five drums, we note the replacement in reinforced concrete of one missing drum (left unfinished), the insertion of steel bars and the erroneous placement of the second drum from the top. Meanwhile, the correct element for that location, a drum with a protruding corbel, still lies waiting on the opposite side of the main colonnaded street (FIGS. 35).

As elsewhere at Jarash, this particular type of corbelled drum was intended to bear the epistyle of a colonnade of a contiguous building. This would correspond to the colonnade of the Cathedral, south of the Nymphaeum.

At the South Bridge, the lost curtain was almost totally replaced, with the original remains almost totally buried within new construction. Also not considered was the possible original use of a string course to mark the outside of the road. Moreover, most of the road's paving stones were arbitrarily replaced (FIGS. 36-40).

In the *anastylosis* of the four detached columns of the West Propylaeum of the Sanctuary of Artemis, the remounted capitals appear – on the basis of comparison with other structures – to belong to a different location. This was most probably the colonnade of the building situated immediately north of the Sanctuary of Artemis (Parapetti 1998). The use of steel bars in the core of the same columns will make reversal of the work significantly more difficult⁹. In similar vein, the architraves and friezes of the detached order were put back up and attached to the main structure, but the traces of drilling were left unconcealed (FIGS. 41-43).

From 1981 to 1984 more excavation and restoration took place at Jarash, this time with international participation that was almost totally supported by the Department of Antiquities. As well as the Italian expedition, which had been working at Jarash since 1977, scholars of the following nationalities were also involved: American, British and Canadian (North Theatre and Church of Bishop Isaia), French and Belgian (Sanctuary



41. Jarash: Sanctuary of Artemis; West Propylaeum, restoration of detached columns (1980s).

⁷ The work of excavation and restoration was entrusted to H. Kalayan (Kalayan 1977-78, 1982, 1988).

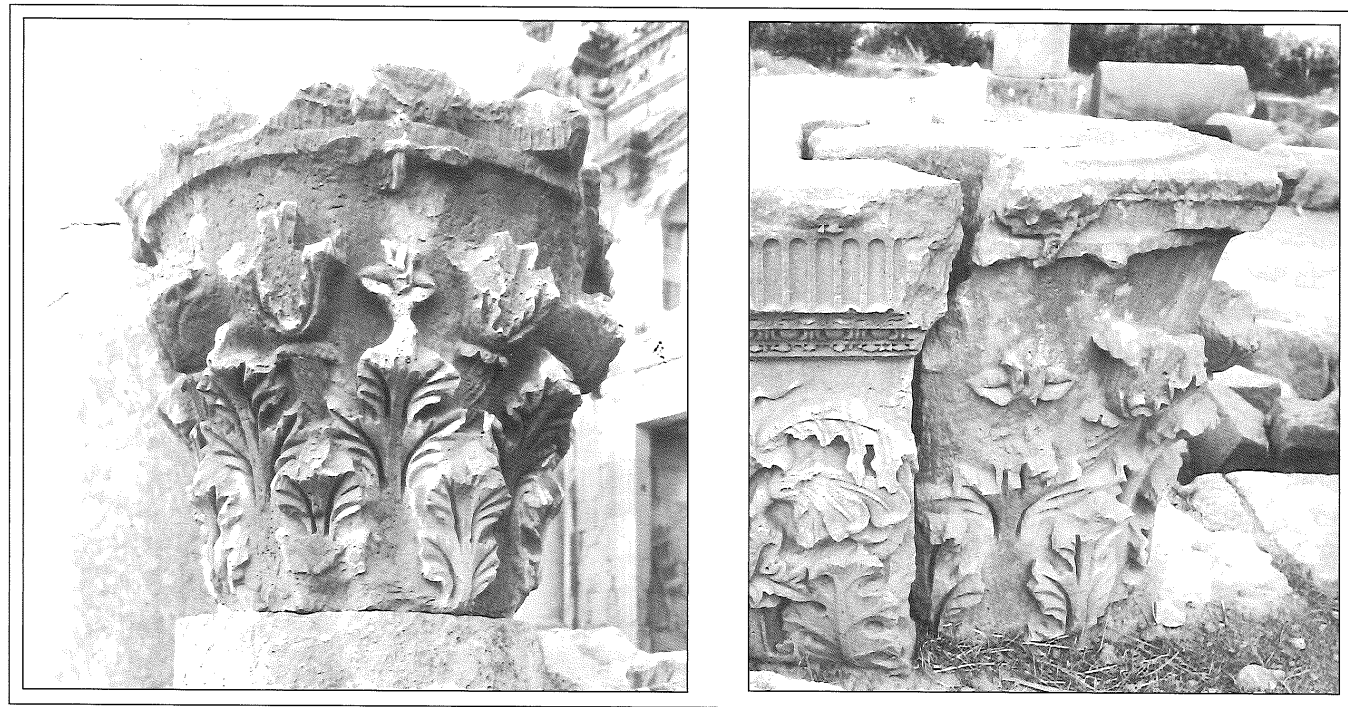
⁸ A similar window grille has been correctly remounted in the south

wall of the same space by the French expedition.

⁹ The same technique was used on three of the columns on the north side of the peristyle of the Temple of Zeus.



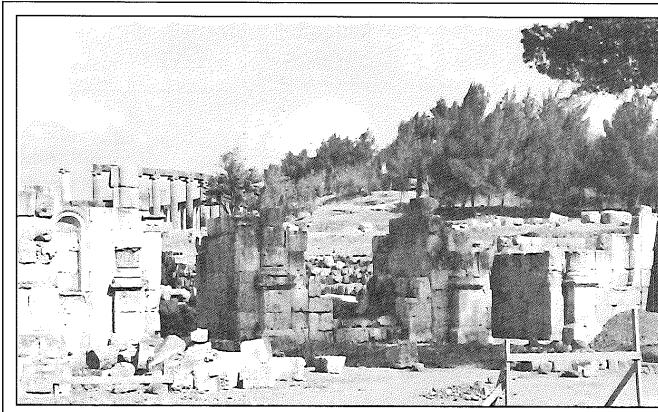
42. Jarash: Artemis Propylaeum after restoration of detached columns and details of reassembled capitals and entablatures (1980s).



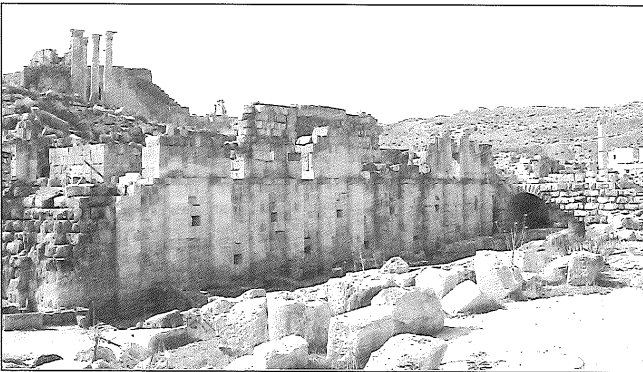
43. Jarash: capital and engaged capital of building north of the Sanctuary of Artemis.

of Zeus and South Gate), Australian (North Tetrapylon and North Decumanus), Spanish (*Macellum*, or market place) and Polish (residential area north of the South Decumanus and the Hippodrome) (Zayadine 1986). Of these, the Spanish and Polish teams continued their work for several years. Under the Poles, the Umayyad house and Hippodrome were restored (Ostrasz 1991; Zayadine 1989). The French and Italian expeditions have continued the work of excavation, restoration and presentation to the public in their areas,

using standard methodologies and the concepts described above. Particularly noteworthy is the restoration work by the French expedition on the South Gate (FIG. 44), the sub-structures of the lower terrace of the Temple of Zeus (FIG. 45) and the Upper Temple (in progress), and that of the Italian expedition on the row of shops and four gigantic columns facing the West Propylaeum of the Sanctuary of Artemis (Seigne 2002; Seigne and Wagner 1992; Parapetti 1997) (FIGS. 46-56).



44. Jarash: South Gate before (1970s) and after restoration; from south.



45. Jarash: Temple of Zeus; sub-structures of lower terrace after restoration (1990s).

In Italy 1980-2010

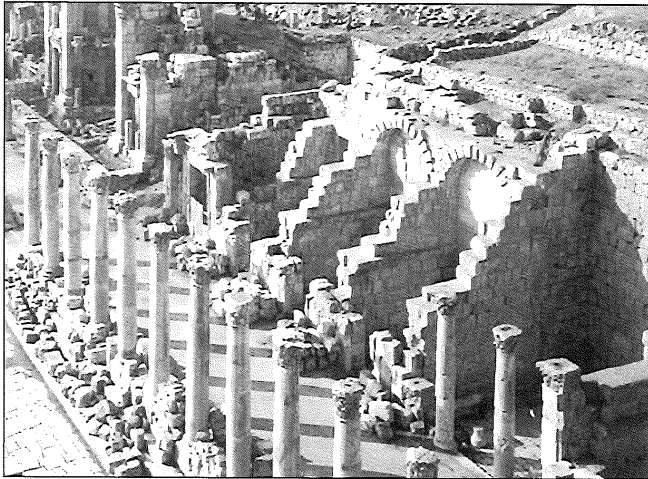
During the last thirty years, different methods of intervention on archaeological heritage have been tried, relating especially to their presentation to a larger audience. Alongside the canonical objectives of restoration, these methods generally attempted to make the remains as comprehensible as possible. There were experiments with reversible intervention on architecture, a principle which had long been applied to painting and sculpture. Interventions were thus made that would permit later intervention on the same monument based on new discoveries, whether historical or technological,



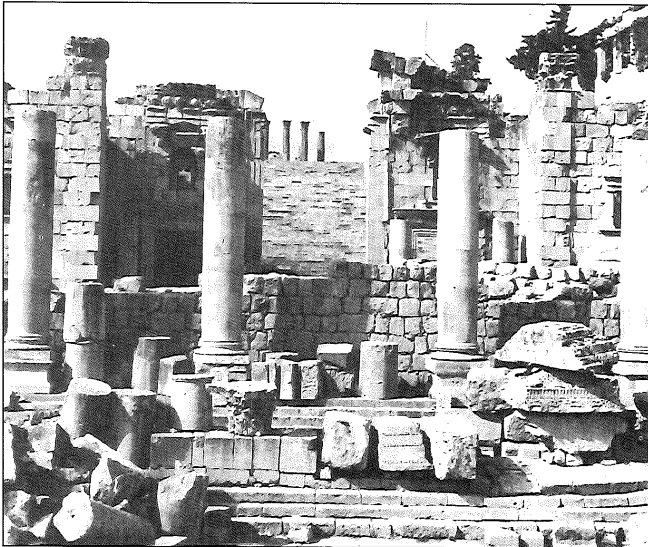
46. Jarash: sub-structures of the intermediate terrace of the Sanctuary of Artemis from north and south (before 1980s).



47. Jarash: front of Sanctuary of Artemis, facing main colonnaded street, after excavation and restoration; from east (1985-90s).



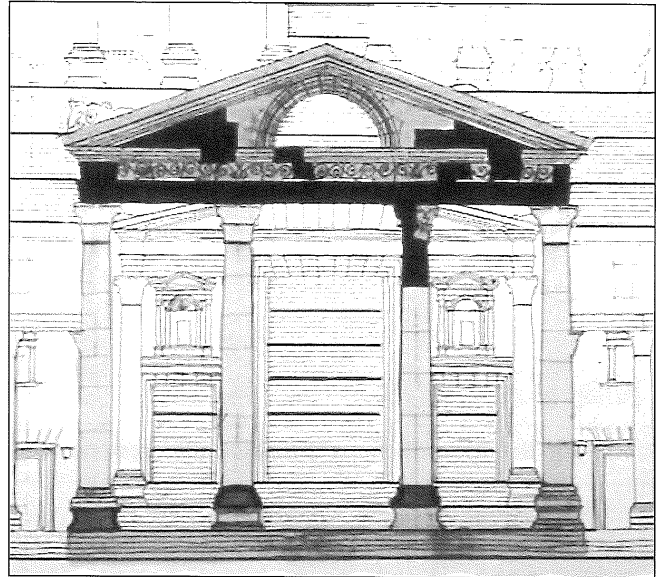
48. Jarash: sub-structures of the intermediate terrace of the Sanctuary of Artemis; detail of southern shops after restoration, from north-east.



49. Jarash: Sanctuary of Artemis; West Propylaeum, partial reassembly of the four gigantic columns (1960s).

with the overall aim enhancing knowledge and improving conservation.

The first experiments with this approach date to the early 1970s at the Villa del Casale, better known as Piazza Armerina, in Sicily. Intervention on the 4th century AD Roman villa, with its 2000 m² of mosaic pavements most famous for the so-called 'bikini dancers', consisted of the construction of a metal and Perspex roof of the same dimensions and design as the ancient roof. The greater part of the visitor's itinerary is on metal catwalks laid out over the tops of the walls, which are preserved to an average height of *ca.* 1m¹⁰. This enabled the mosa-



50. Jarash: Sanctuary of Artemis; West Propylaeum, reconstruction project of the four gigantic columns (missing parts in black) (1980s).



51. Jarash: Sanctuary of Artemis; West Propylaeum, *anastylosis* of the four gigantic columns (1996).

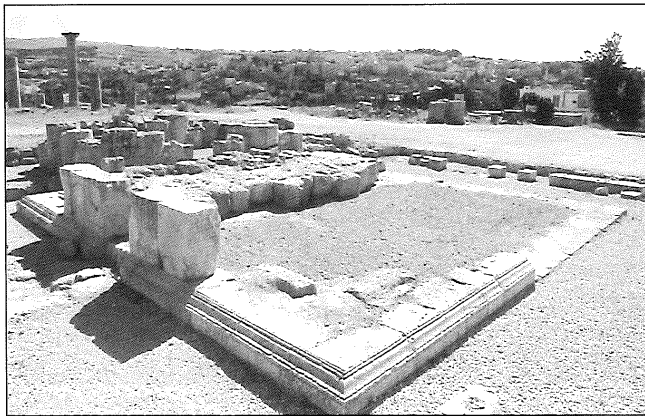


52. Jarash: Sanctuary of Artemis; main altar in front of the temple during excavation of overlapping kilns complex (1980s), from south.

¹⁰ Project by F. Minissi.



53. Jarash: Sanctuary of Artemis; main altar in front of the temple after collapse during snowy winter of 1992, from south-east.



54. Jarash: Sanctuary of Artemis; main altar in front of the temple after restoration (1996), from south-west.



55. Jarash: Sanctuary of Artemis; area of temple steps and overlapping kiln complex after excavation in 1980-1987 (steps in centre built in 1960s), from east.

ics to be viewed from a better perspective without actually walking on them (FIG. 57). There are now



56. Jarash: Sanctuary of Artemis; partial reconstruction of temple steps (1996).

plans to renovate the new roof in order to achieve effective micro-climate control.

This approach was also used on the Temple of Apollo at Veii. Of the sixth century BC Etruscan building, only a few centimetres of the surrounding walls are preserved, plus architectural terracottas from the wooden roof and fragmentary statues of divinities that must have stood on roof-top, including the famous smiling god known as the Apollo of Veii. To show visitors the dimensions of the ancient monument, a reconstruction of half the side walls and half the *tympanum* of the eastern pediment were made using steel bars. Copies of the decorative terracottas were placed on this frame (FIG. 58)¹¹. The same method was used on the sole preserved column of the Crypta Balbi portico in Rome (FIG. 59)¹² and on some arches of the Roman baths of Epizephyrean Locris (FIG. 60)¹³. More recently, the lost part of the outer shell of the Colosseum was 'replaced' without reconstruction (*ricostruzione non ricostruttiva*): its line and the position of its piers were marked on the pavement (FIG. 61). Another experiment in Rome is a new and totally reversible type of restoration intervention. A reconstruction of the original colouring of the marble bas-reliefs can be admired on the front wall of the Ara Pacis of Augustus thanks to the projection of a sophisticated combination of images¹⁴. The intervention can be reversed through use of a simple on / off switch. Similarly, the Japanese artist Hiro Yamagata has announced the virtual reconstruction of the Bamiyan Buddhas by projection of holographs.

The Colombo Charter

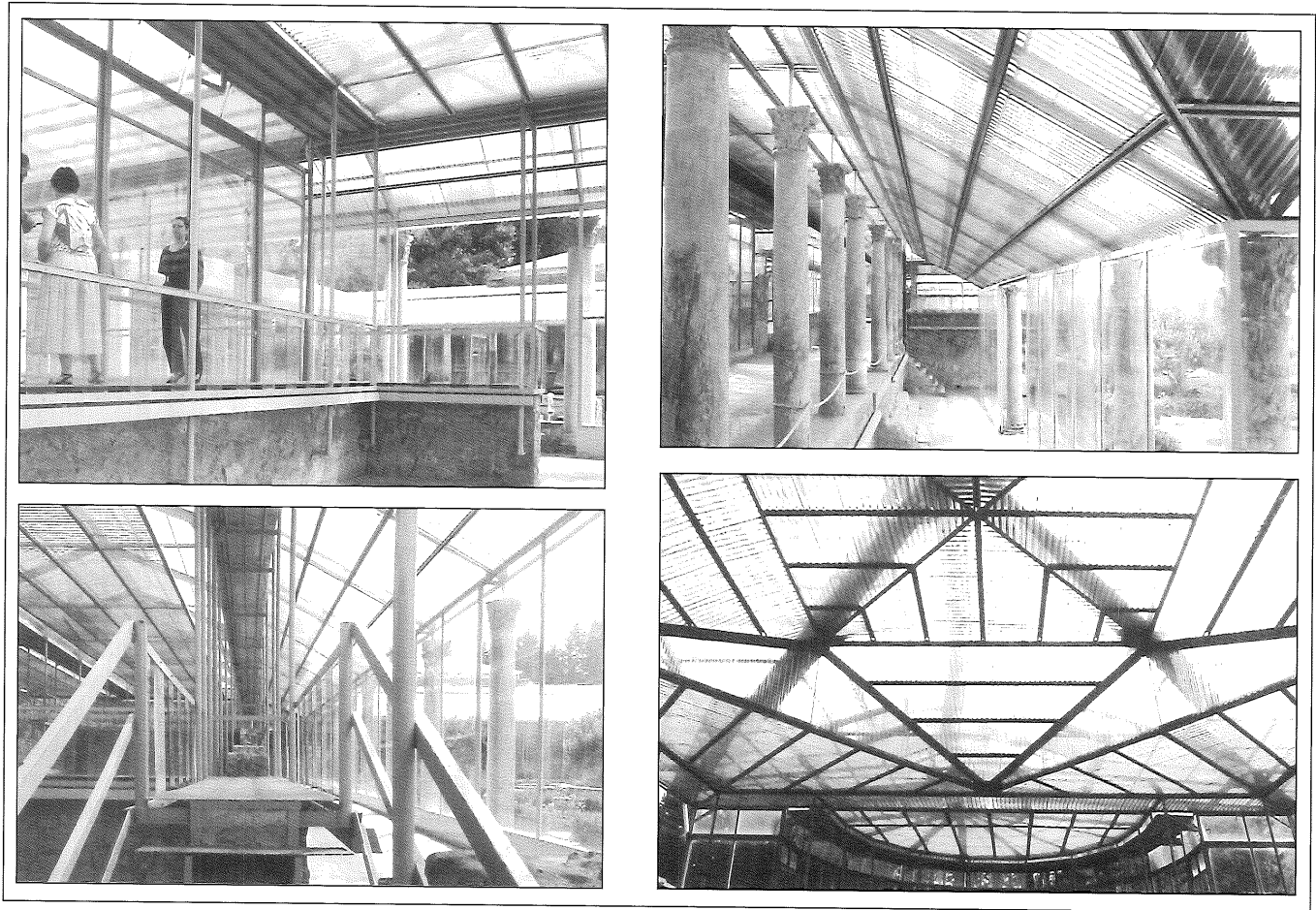
At the general assembly of the International Coun-

¹¹ Project co-ordinated by M. Pallottino.

¹² Project by M.L. Conforto.

¹³ Project by R. Parapetti.

¹⁴ Project by the Municipality of Rome with technical support from Martin Professional Italy SpA.



57. Villa del Casale / Piazza Armerina; metal shelter and catwalks for visitors (1970s).

cil on Monuments and Sites (ICOMOS) held in 1993 in Colombo, Sri Lanka, the following points were emphasised:

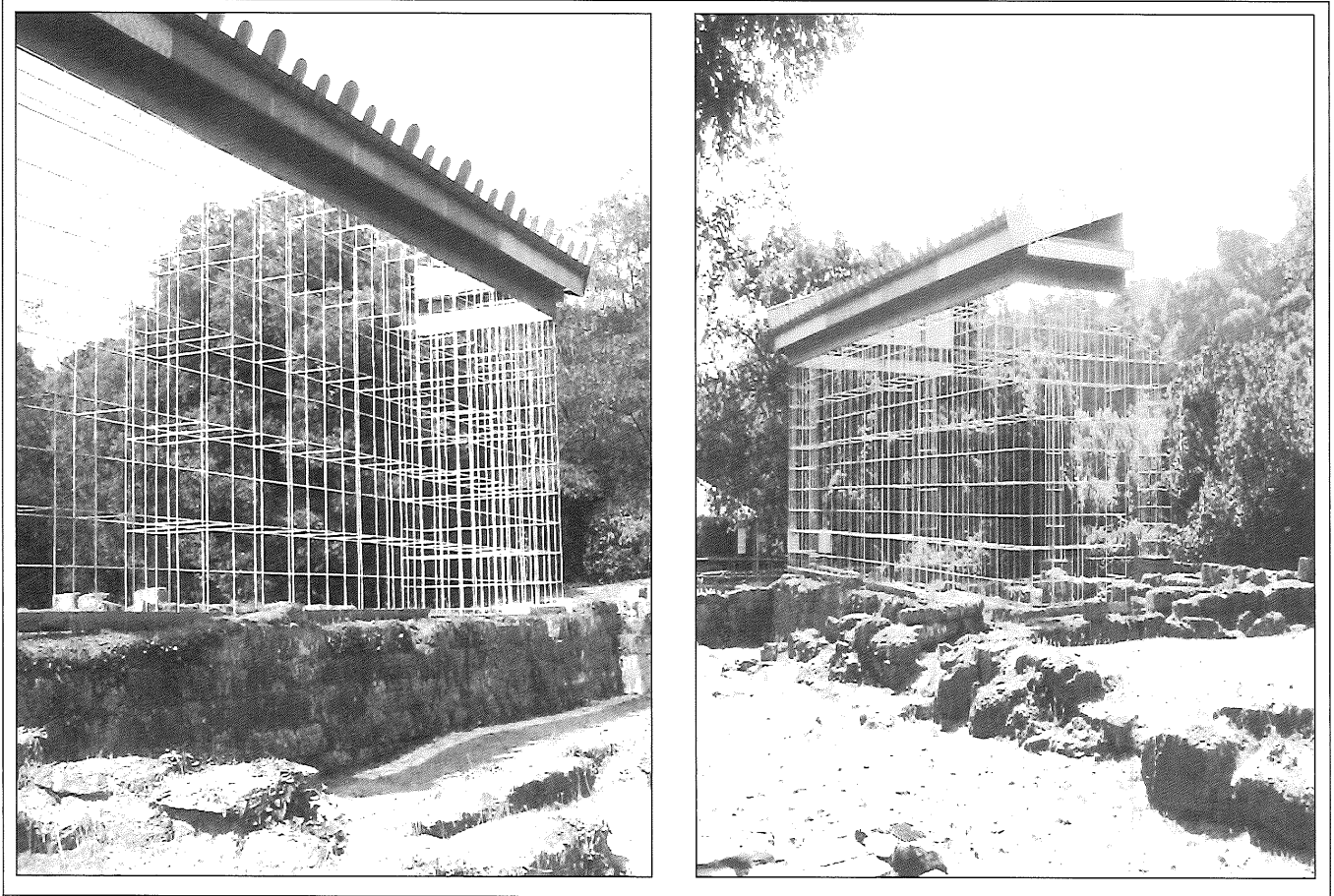
1. In view of the great variety of actions and treatments required for conservation of heritage resources, a common framework of guidance was required;
2. The recognised fact that conservation requires the collaboration of different professions necessitates proper training and education in order to achieve co-ordinated conservation action;
3. Noting the Venice Charter and related ICOMOS recommendations, a need was identified to provide a framework of reference for institutions and bodies involved in developing training programs, as well as to assist in establishing appropriate standards for the specific cultural and technical requirements of each community or region;
4. It was recommended that the following state-

ment be disseminated for the guidance of institutions, organisations and authorities:

The object of conservation is to prolong the life of cultural heritage and, if possible, to clarify the artistic and historical messages therein without loss of authenticity and meaning. Conservation is a cultural, artistic, technical and craft activity based on humanistic and scientific studies and systematic research. Conservation works should only be entrusted to persons competent in these specialist activities.

Jarash 1990-2010

From the early 1990s to the present, the Department of Antiquities has continued to carry out significant reconstruction work. In the North Theatre, reconstruction of the marble pavement of the orchestra can be observed (FIG. 62). The North Tetrapylon, of which a large number of architectural elements were preserved on the ground, has been completely



58. Veii: Temple of Apollo; suggested reconstruction of outer walls of cella (1980s).

reconstructed. A first intervention, in the 1980s, involved reconstruction of the western corner of the south front (FIGS. 63)¹⁵. The original position of a group of four architectural elements found amongst the collapse at the foot of the monument, which evidently belong to it, was not correctly identified. These consist of four plinths, decorated with an oak-leaf band, which were reassembled on the ground just below the architrave (FIG. 64). When work resumed in the 1990s¹⁶, the plinths were placed between the capitals and architrave of the detached order (FIG. 65). At the Arch of Hadrian, which had been partially consolidated in the 1970s, resumption of the *anastylosis* – which is still under way – was based on the generic graphic reconstruction proposed by the first American scholars. The arch displays a complete reconstruction of the lost decorative elements that will soon be hard to distinguish from the originals (FIGS. 66-68). Like-

wise on the basis of the American graphic reconstruction¹⁷, the North Gate was also completely reconstructed (FIGS. 69-71).

It should be eventually observed that the above mentioned works have not always taken in a due consideration the spirit of the indications the international organizations had recommended in applying a most prudent approach by dealing with insertion of the new into the old.

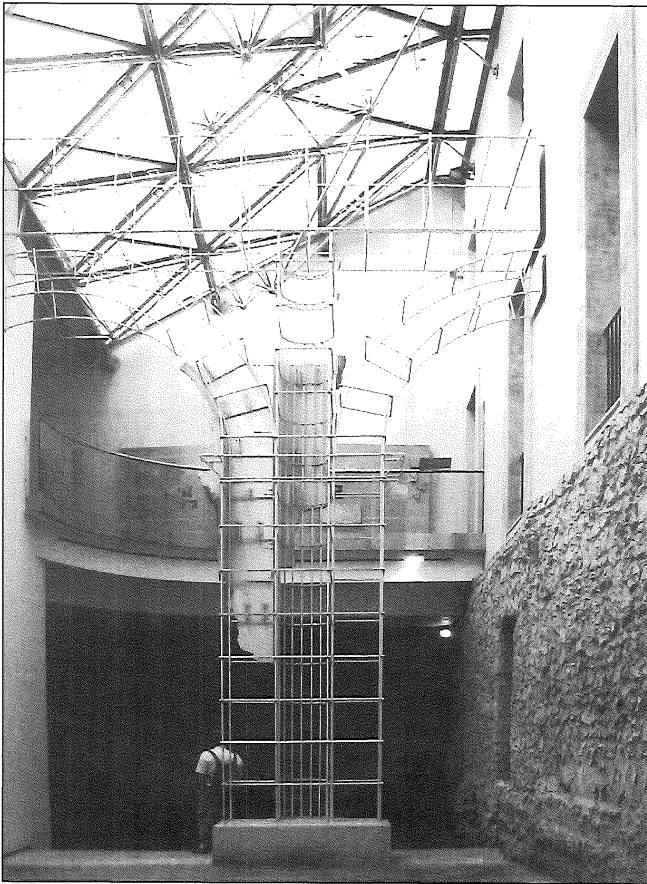
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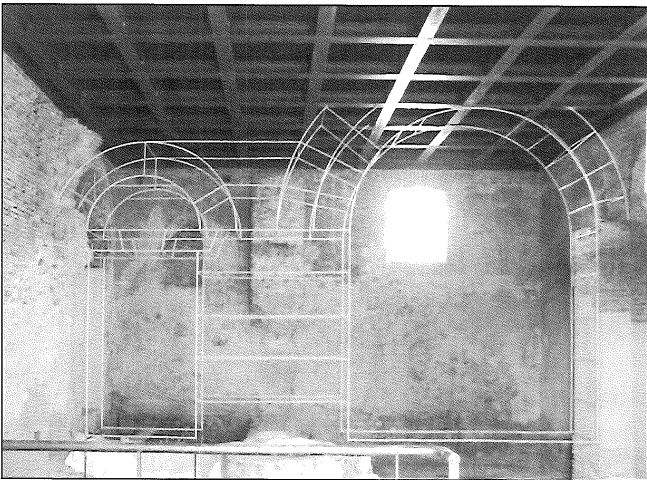
¹⁵ The work was done by W. Ball of the Australian team.

¹⁶ These interventions were done by Abdulmajid Mjelli.

¹⁷ Both graphic reconstructions were studied by Detweiler 1938.



59. Rome: Crypta Balbi; suggested reconstruction of a portico column (1980s).



60. Epizephyrean Locris, Casino Macrì; suggested reconstruction of the *tepidarium* arches of the Roman Baths (2006).

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61. Rome: Colosseum; 'replacement' without reconstruction of lost outer shell (2010).

dan: Amman.

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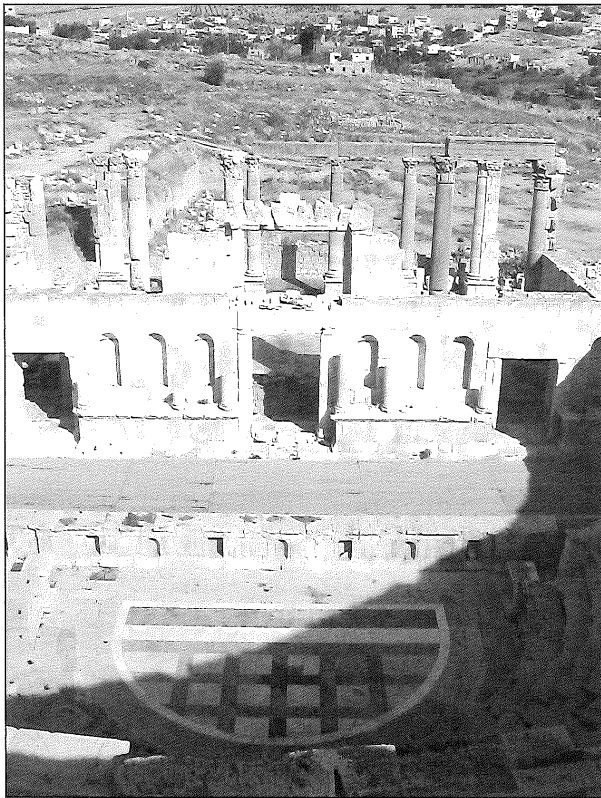
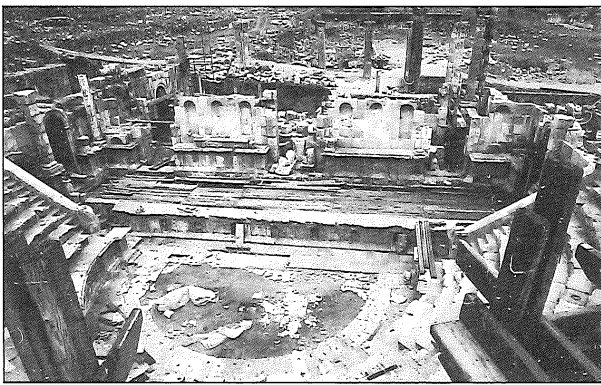
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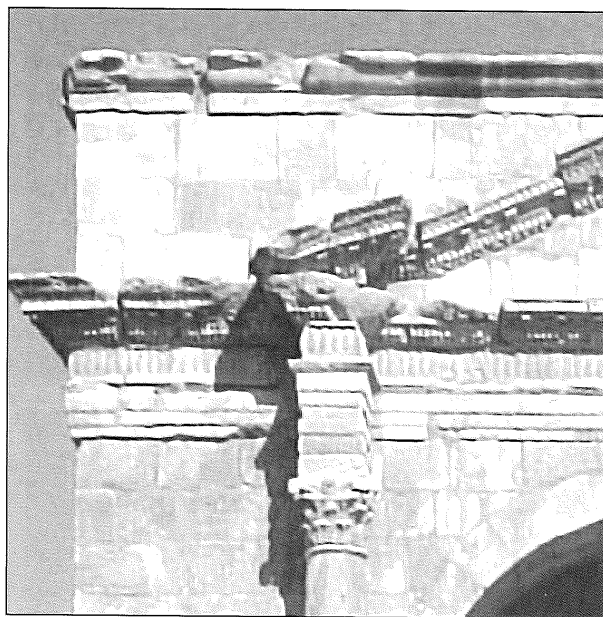
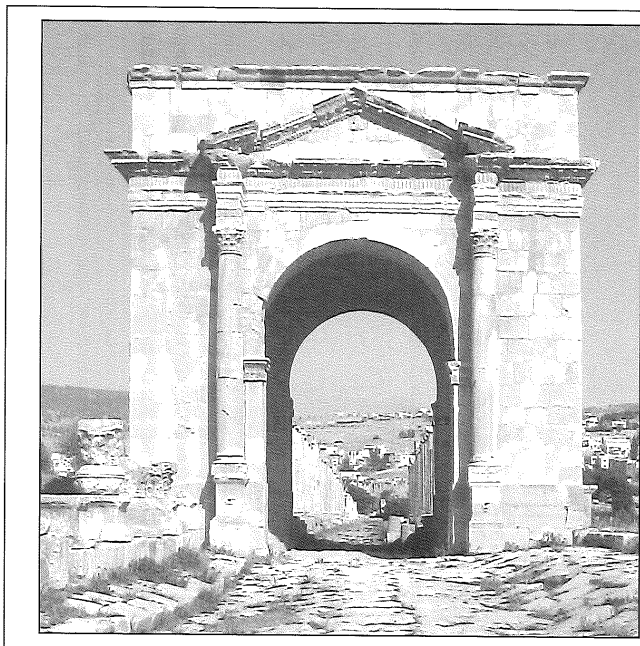
62. Jarash: North Theatre; orchestra floor after excavation and restoration (1990s).



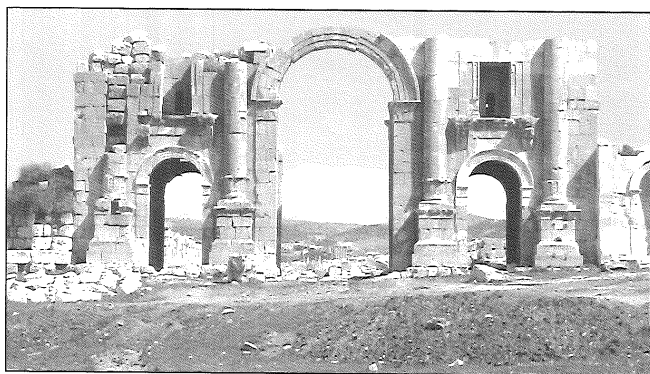
63. Jarash: North Tetrapylon; south and west fronts (1920-30s).



64. Jarash: North Tetrapylon; epistyle of detached column of south (or north) front on ground, (right) erroneous position of elements (1980s).

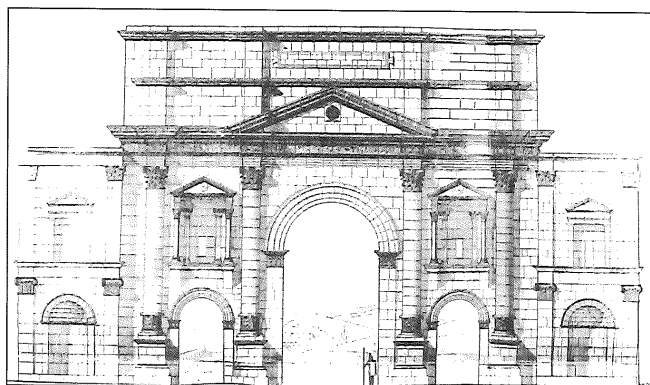


65. Jarash: North Tetrapylon; south front, completion of reconstruction work and detail of top of south-west corner (1990s).



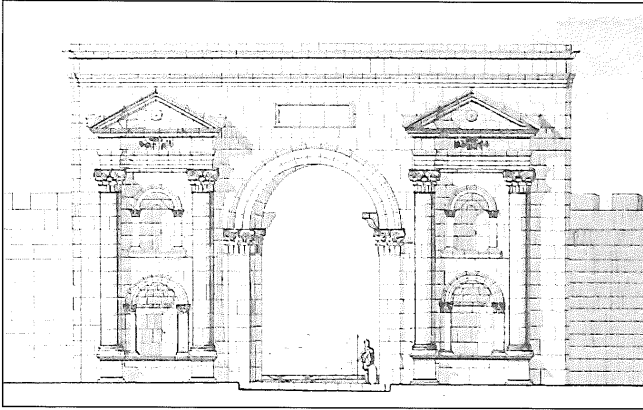
66. Jarash: Arch of Hadrian; south front (1970s).

68. Jarash: Arch of Hadrian; restoration works (1970-2000s).



67. Jarash: Arch of Hadrian; reconstruction hypothesis (1930s).

69. Jarash: North Gate; from south (1980s).



70. Jarash: North Gate; graphic reconstruction of south front (by 1930s).



71. Jarash: North Gate, reconstruction (2000s).