معرفی آثار تزیین‌های نویافته بر روی سرستون‌های تخت‌جمشید

فهیمه همایون، سیروس زارع، یونس زارع، حمید فدایی

چکیده

روش‌های گوناگونی در پدید آوردن تزئینات سنگی نقوش برجسته تخت‌جمشید به کار رفته است. از جمله مواردی که روی نقوش برجسته و ستون‌های تخت‌جمشید قابل توجه است نوعی تزیین است که اکنون از آنها فقط سوراخ‌هایی بر روی سنگ‌ها باقی مانده است. کاربرد این سوراخ‌های روی نقوش برجسته برای اندازه‌گیری و طراحی نقوش و نصب تزیینات است. در مقاله حاضر نویسندگان بر کاربرد حفره‌های و نویافته روی سر ستون‌های تخت‌جمشید که به وسیله مته ایجاد شده متمرکز شده‌اند و این که این سوراخ‌ها جهت نصب ابزار یا وسیله‌ای دیگر مورد استفاده قرار می‌گرفته است. بطور کلی سرستون‌های تخت‌جمشید از سه بخش تشکیل شده که قسمت اول آن به شکل گاو یا شیر یا انسان بوده و به صورت پشت به هم قرار دارند و در قسمت دوم آن که گل‌های نیلوفر به صورت حلزونی و طوماری و بخش سوم آن با تزیینات غنچه‌های گل نیلوفر و خطوط شیاردار تزیین شده‌اند. حفره‌های مطرح شده در این پژوهش بر روی هر سه بخش سرستون مشاهده می‌شود. این سوراخ‌ها دارای قطر کم بوده و به‌وسیله مته‌های ریز ایجاد شده‌اند

.

واژگان کلیدی: تخت‌جمشید، نقش برجسته، سرستون، تزیینات.

https://doi.org/10.22034/JINM.2024.560820.1060

The Newfound Footprints of a Discrete Decoration Type on the Column Capitals at Persepolis: An Outline

Fahimeh Homayoun[a], Siroos Zare[b], Younes Zare[c], Hamid Fadaei[d]

Abstract

Diverse techniques were evoked to embellish the rock cut reliefs at Persepolis. A specific feature on the column capitals at this complex entails a sort of decoration that today we can only hazard a guess about it based on a series of disparate holes. Holes were commonly used on the reliefs for measuring and copying the motifs, and attaching additional embellishments. Yet, this paper focused on the function of a certain type of drilled slanting, shallow double holes in small diameter that occur all over the tripartite column capitals at Persepolis. The paper concluded that the holes in question were possibly used to hang uncertain lightweight ornamentations.

Keywords: Persepolis, Column capitals, Slanting double holes.

a. Persepolis World heritage site, fahimehomayoon22@yahoo.com.
b. Persepolis World heritage site, cyruszareparse@gmail.com.
c. Persepolis World heritage site, yoni_apadana@yahoo.com.
d. Research Institute of Cultural Heritage & Tourism, hfadaii@yahoo.com.

Introduction

Stone and mudbrick formed the main building materials at Persepolis. The former was employed for terracing and construction of gateways, stairs, etc. The remaining parts of the palaces were completed with mudbrick. The builders of the complex have left decorations on the employed materials, viz. stone slabs and mudbricks. Carved and applique patterns on glazed bricks and carved motifs on stones are among these decorations.

Achaemenian decorations on stone are not limited to carving and polishing of the motifs, and in cases this technique has been complemented with other techniques such as painting and inlaying (Fig. 2) (Roaf 1994, 23). Apart from these, one can now speak about a newfound category of ornaments that are today inferable from a series of drilled small, double holes that are mainly attested on the column capitals. These holes, possibly created for the attachment of additional decorative elements in the architectural space, have been mostly identified on displaced stone slaps that are out of their original context, a fact that makes the present study rather complicated. Therefore, while being attentive to the spatial diversity of the stone slabs bearing these holes, we will put forward assumptions about their use in light of archaeological evidence.

The paper aims to introduce a certain category of holes on the stones at Persepolis which remain almost untackled in the previous publications.

Research questions considered here include:

1. What was the function of these holes?
2. On which structural elements/parts were they made?
3. What kind of objects/materials were threaded through them?

Hypotheses consist of the following:

1. Some flexible objects/materials were seemingly passed through these holes.
2. They were drilled into different elements/parts such as doorways and columns.
3. Possibly, objects of metal or organic fibers were reeved through these holes.

It is noteworthy that parts of the stone blocks bearing the holes in question have been addressed recently as part of the project Organizing the Stones Deposited at the Stone Store of Persepolis. In the present study, apart from those identified in the mentioned project, further slabs with similar holes scattered across the Persepolis complex are examined and compared. The study thus adopts both field and library methods.

Achaemenian Art

As a crucial component of every culture, art has played an integral role across the history. The virtuosity and spirit typical of Iran attained its most perfect quintessence in decorative arts, i.e. arts that the secret underlying their sway arises from the allure of patterns (Pope 2007, 5).

As one of the frequent assertions about the ingenuity of and inspirations from Achaemenian art throughout historical periods in Iran, Razmjou puts that (2017, 718),

"This is likewise in evidence in Achaemenian architecture. The wealth of financial and human resources at hand, coupled with astute management practices, order and Achaemenian's peculiar worldview imparted an unprecedented character on the surfaced masterpieces in art and architecture. Iranians managed to make the most of these facilities, and were even able to integrate artistic and architectural traditions of other cultures into their artistic elements in an astute and elegant way in the creation of these works of art."

An aspect of Achaemenian art unparalleled throughout the history of Iranian art is its ability to fabricate a coherent and integrated art system, manifestations of which are not infrequent during, in particular the latter part of, this period. Yet, the degree of coherence it displayed in reproducing the same patterns is such that this art has always been praised as a sublime art (Nobari *et al.* 2010, 34)

In general, Achaemenian art, while materialized into royal buildings, exhibits the imperial spirit and rules outside the purview of humanity. This architecture provoked a luxurious and magnificent vision in the shape of regular and neat geometric forms (Ghafouri 2002, 179).

Decorations

With respect to the palaces of Persepolis, some scholars have interpreted the surviving dec-

orations to have been either architectural or elements meant to enhance structural performance (Motamedmansesh 2015, 21). Even A. Godar ventured to claim that Achaemenians realized that a work would qualify as aesthetic only if it went beyond merely adorning a building (Godar 1965, 118). Many decorations employed at Persepolis are at the same time functional, strengthening the above assumptions.

The decorations at Persepolis represent the works of artisans recruited from all across the empire to construct a royal complex otherwise known as the Palace of the Nations (Moghtader *et al.* 2020, 237). An inscription at the complex informs us that (Sharp 1967, 99),

"The gold was brought from Sardis and from Bactria, which here was wrought. The precious stone lapis lazuli and carnelian which was wrought here, this was brought from Sogdiana. The translucent precious stone (opaque—seemingly turquoise), this was brought from Chorasmia, which was wrought here.

The silver and the ebony were brought from Egypt. The ornamentation with which the wall was adorned, that from Ionia was brought. The ivory which was wrought here, was brought from Ethiopia and from Arachosia… .

The goldsmiths who wrought the gold, those were Medes and Egyptians. The men who wrought the wood, those were Sardians and Egyptians. The men who wrought the baked brick, those were Babylonians. The men who adorned the wall, those were Medes and Egyptians."

Explicit references to decorations and their provenances in this inception evince their prominent place in Achaemenian architecture and their importance for the king. The primary type of decorations consists of those worked in sculpting technique on the palaces' walls and gateways.

Pointing

"There is evidence for the use of 'pointing' on the animal capitals at Persepolis. 'Pointing' is a method of copying where the surface of the original model is measured from three or more fixed 'points' and these measurements are transferred on to the copy by means of dividers. The final surface was reached in a few selected places first and then the areas between were removed instead of the final surface being reached gradually all over as in freehand carving. The process of construction is thus entirely different from freehand carving, but in fact after the marks of the points have been removed, the final result can be almost indistinguishable [Fig. 1]. On most of the capitals a number of holes made by a pointed instrument, such as the end of a pair of compasses or dividers, can be seen. Some of these 'pointing holes' are found in the same positions on all bull capitals, on the underside of the knees, on the jaw, on the nose and on the forehead. Occasionally 'pointing holes' also appear on the shoulders" (Roaf 1983, 100-101).

At Pasargadae, the central holes of the 12-petaled flowers are likewise believed to be pointing holes left by a pair of compasses' end (Mousavi and Ataie 2013, 113). Therefore, shallow round holes probably represented such points.

Holes for Decorations on the Walls

Column is the predominant element of Achaemenian art. The columns were mostly wooden, but in more public palaces they were made of stone (Herzfeld 2002, 245).

Achaemenians adorned their stone reliefs in three ways. One was attaching precious metals in the form of crowns, collars, bracelets, etc., to the original slab through the holes made on both sides of the latter (Tilia 1978, 77). The second entailed dexterous cutting of the patterns of clothes, crowns and hats with needles, as evidenced on the gates of the Palace of Darius the Great (Tachara) and the Harem. And the third is painting, examples of which are found at the Tripylon and the Hall of Hundred Columns (Shahbazi 2005, 243).

In the northern and southern gates of Tachara, the engraved collars, bracelets, crenate crown and the king's beard originally contained inlays of gold and precious metals that are now missing (Sami 1969, 42).

The king's crown was cladded in a gold sheet affixed through wide head nails, an observation corroborated by the existence of small holes. The holes on the neck and the chest and on both sides of the wrists were for the at-

Fig. 1. Pointing holes at the center of a relief and a column capital.

tachment of necklaces and bracelets (Schmidt 1953, 222).

In situ instance of such decorations is only represented by a single attestation on the northwestern gate of the Hall of Hundred Columns. An ornamental item belonging to a crown recovered at the storerooms of the Apadana Hall is now housed at the National Museum of Iran (Figs. 2 and 3).

Probably, wooden doors were also encased in sheets of gold or other metals (Sami 1969, 15). The bronze sheets bearing motifs in relief, possibly combined with gold and silver, perhaps adorned the wooden doors (Schmidt 1953, 171) (Fig. 4).

Holes for Attaching Decorations on Capitals

The component of the Column and the decorations installed on it were first described and designed by Flandin(Flandien,1851:PL 120((Fig. 5).

The uppermost part of the column capitals in the Achaemenian buildings consist of the foreparts of two bulls, man-bulls or griffons, legendary animals with the head of an eagle and body of a lion. The most common form is a pair of addorsed kneeling bulls. In cases, this part of the capital directly sits on the shaft and the base (Boardman 2000, 77).

Immediately beneath the animal capital occurs a cubic element with wide flutings and double volutes that are somewhat reminiscent of Ionic capitals.

The third part, coming below the cubic part, consists of overhanging palm leaves in relief. At Persepolis, this part of the capitals also bears other decorative elements, such as bead-and-reel molding (Boardman 2000, 77) (Fig. 6).

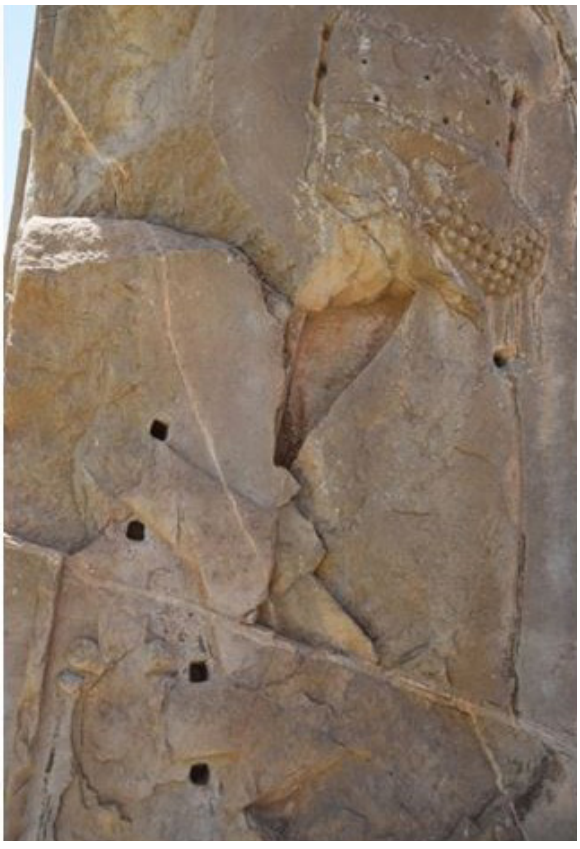

Fig. 2. Holes for the attachment of ornaments.

Fig. 3. A metal fragment left in the holes related to the earring and necklace at the Hall of Hundred Columns.

Egyptians also made use of palm leaf, papyrus plant, and lotus in their capitals, and this composition of the Egyptian capitals was imitated in Achaemenian art (Velayati 2010, 92).

A number of dislocated stone reliefs scattered on the surface of the site bear large numbers of holes. Most of them have been considered in the previous studies, which have ascertained their functions. Among them are shallow holes that were used as part of the measurement system.

Another category of holes, which occur in rare cases on the stone slabs surviving within the complex and form the main subject matter of the present paper, are a pair of, probably drilled, small holes. Generally measuring 3 mm in diameter and 5 mm in depth, these double holes tilt towards each other and contain no vestiges of metal or other materials. The paired holes converge at the bottom (Fig. 7). All instances of these double holes identified to this date occur on the column capitals. The only known intact example relates to a bull capital in the court of the Hall of Hundred Columns and a lion capital in the eastern Apadana. In both cases, two slanting holes are visible on the underside of the muzzle.

In the upper part of the capital in the shape of a double animal or human protome, these decorative drill holes occur on several parts, including hair curls and the eyebrow and other body parts of the animal (Fig. 8). Such holes are also attested on the second, voluted, part. At this

Fig. 4. Gold and bronze ornaments.

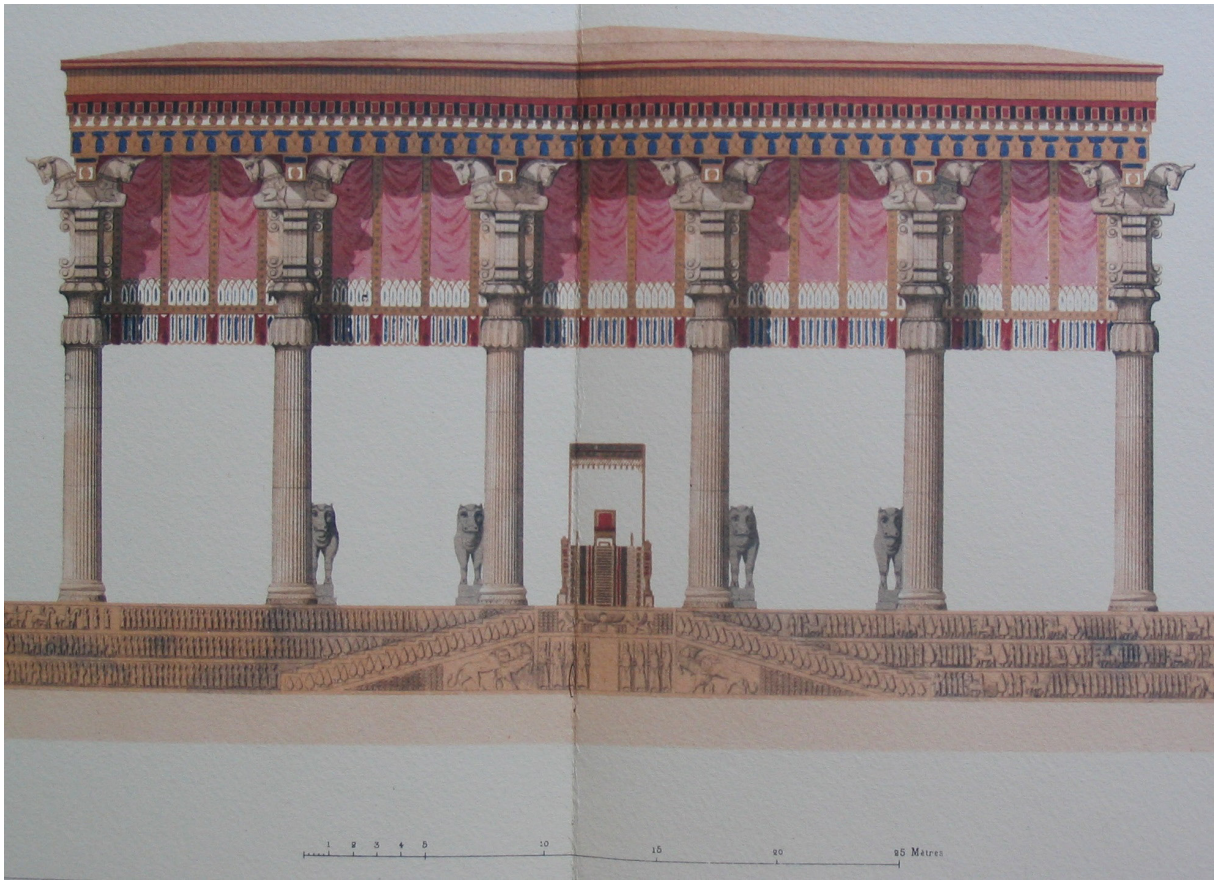

Fig 5. Curtain design on the head board.

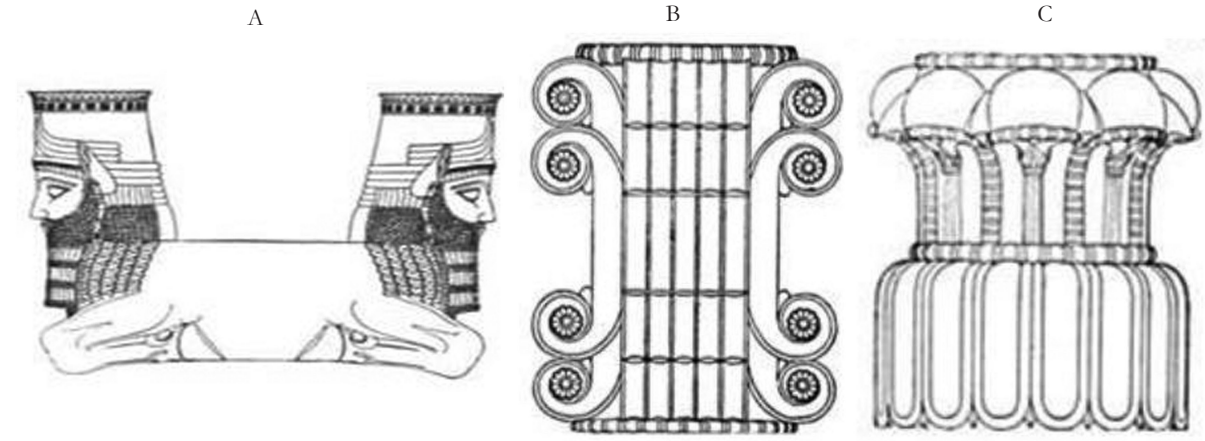

Fig. 6. Line drawings of different parts of a capital (after Schmidt 1953, 113).

part, they are exclusively found on the carved lotus, on which a drilling mark occurs (Fig. 9).

Related holes are also in evidence on the lowest part of the capital, where they are not restricted to any certain point. Slabs with pertinent holes on the lowest part of the capital are much less in frequency than those on the upper and middle parts (Fig. 10).

Given the fact that these drilled double holes meet at the bottom, and that they have thus far failed to produce any traces of metals, plausibly a thin metal rod or thread was passed through them to allow attaching other embellishing items (textile or fiber). Since this hole type is found only in the upper elements close to the ceiling, and given the columns considerable height which possibly made any type of decorations attached to them practically imperceptible, one might conjecture that these holes were meant to affix decorations that hung down from the column. Such decorations could have been used to mask stone surfaces that were not

Fig. 7. Holes for attaching decorations on animal's eyebrow on a capital.

Fig. 8. Decorative holes on the upper part of the capital.

Fig. 9. Holes for attaching decorations in the second, middle, part of the capital.

Fig. 10. Holes for attaching decorations on the lowest part of the capital.

polished and fine-dressed. Given the fact that quite large holes were made for attaching such lightweight items as a bracelet or a metal or stone crown, examples of which were recorded on half finished slabs, it is possible that decorations hanging from the double holes were part of a compensatory measure to offset the unpleasant effects of those larger holes. Therefore, it is improbable that these shallow holes of a small diameter were designed to carry any heavy objects. Possibly, surfaces originally projected to be entirely decorated or finished, had remained partially undecorated or rough cut for uncertain reasons (Fig. 11).

Loops for Hanging Decorations

A series of line drawings in Schmidt's book and metal ornaments currently in display at the Persepolis Museum propose an alternative possibility that the concerned small diameter holes found in different parts of the capitals received metal loops related to installing additional decorations. Further positive evidence for this assumption comes from the canopies above the king in the Hall of Hundred Columns, the audience relief, the Tripylon, and from the large assemblage of burnt textiles recovered in the excavations of Persepolis.

Conclusions

Carved motifs were used to embellish the palaces at Persepolis. Columns in the palaces of public character were fashioned of stone. Not complacent with the scrupulous enterprise of sculpting and stone cutting, the Achaemenians would add further flavor to their mesmerizing palaces through painting or embedding crowns or bracelets of prized stones or metals into their stone reliefs. Yet, they adopted a different approach towards the ornamentation of their columns, or

Fig. 11. A partially finished stone slab with holes.

Fig. 12. Metal loops probably used for installing decorative items.

at least a few columns were embellished in a discrete way. Decorations that once graced the columns are now only represented by a few holes of small dimensions. While vestiges of metals are existent within the holes used for attaching decorations on the stone reliefs, no such traces are found in the holes on the column capitals. This observation suggests that the latter small holes were not meant to affix molten metals. Since the capitals stood some 15 to 20 m above the floors of the palaces, the rather small decorations that garnished them would prove rather indiscernible. On the other hand, these holes would not afford to carry the weight of metal decorations of large dimensions. Hence, a more plausible scenario is that these holes were used to suspend items of textile or light ornaments.

Acknowledgement

We would like to thank Dr. Ali Mousavi and Dr. Shahrokh Razmjou for reading the manuscript and for their indispensable insights.

References

Boardman, J.
2000 *An Archaeological investigation of the Genesis of Achaemenid Art*. London: Thames and Hudson.

Flandin,E.N. & P.X. Coste
1851 *Voyage en perse*(Vol.2). Gide et Baudry.

Ghafouri, O.
2002 *The Interplay between the Greek, Asia Minor and Achaemenian Architectures*. Unpublished MA thesis, Tarbiat Modares University, Tehran.

Godar, A.
1965 *The Art of Iran*. NewYork: Praeger.

Herzfeld, E.
2002 *Iran in the Ancient East*, trans. by H. Sanatizadeh. Tehran: Institute for Humanities and Cultural Studies / Kerman: Shahid Bahonar University of Kerman.

Hojbari Nobari, A.; M. Tavousi, M. Tavousi, F. Khademi Nadoshan
2010 "Management of Art Production in the Achaemenian Period," *Journal of Fine Arts-Visual Arts* 44: 33-40.

Moqgtader, B.; I. Etesam, M. Matin
2020 "Social Interactions on Labor Sites during the Achaemenid Period and the Architecture of Modern Industrial Estates," *Iranian Journal of Architecture and Urbanism* 11 (19): 231-248.

Motamedmanesh, M.
2018 "Achaemenian Royal Architecture: Symbolizing Technology and Human Wisdom in Ancient Times," *Journal of Iranian Architectural Studies* 13: 5-32.

Mousavi, A. and M. T. Ataie
2013 "The New Finds from Pasargadae and a New Proposed Reconstruction for the Building Known as Zandan-e Suleiman," *Bastanpazhuhi* (New Series) 7(14-15): 111-117.

Olmstead, A.T.
2004 *History of the Persian Empire*, trans. by Mohammad Moghadam. Tehran: Elmi va Farhangi.

Pope, A.U. and Ph. Ackerman
2008 *A Survey of Persian Art*, trans. by Najaf Daryabandari, Vol. 1. Tehran: Elmi va Farhangi.

Razmjou, Sh.
2013 "Achaemenian Architecture," in *A Comprehensive History of Iran*, Vol. 3: Social and Economic Conditions of Iran, Achaemenid Art and Architecture. Tehran: The Centre for the Great Islamic Encyclopaedia.

Roaf, Michael
2002 *Sculptures and Sculptors at Persepolis*, trans. by H. Ghiyasinejad. Tehran: Iranian Organization of Cultural Heritage, Handicrafts and Tourism.

Sami, Ali
1969 *Parse (Persepolis)*. Shiraz.

Schmidt, E.F.
1953 *Persepolis*, trans. by Abdollah Faryar. Tehran: Amir Kabir.

Shapour Shahbazi, A.
2005 *The Authoritative Guide to Perspolis*. Tehran: Safiran and Mirdashti.

Tilia, B.
1978 *Studies and Restoration at Persepolis and Other Sites of Fars*, vol. II. IsMEO.

Velayati, R.
2010 "Influence of the Architecture of Subordinate Nations on the Achaemenian Architecture," *Bagh-e Nazar* 14: 87-94.