



FORN VÄNNEN

JOURNAL OF
SWEDISH ANTIQUARIAN
RESEARCH

Swedish contributions to the archaeology of Iran

Nylander, Carl

Fornvännen 2007(102):3, s. [168]-182 : ill.

http://kulturarvsdata.se/raa/fornvannen/html/2007_168

Ingår i: samla.raa.se

Swedish Contributions to the Archaeology of Iran

By Carl Nylander

Nylander, C., 2007. Swedish Contributions to the Archaeology of Iran. *Fornvännen* 102. Stockholm.

Editor's note: Iran is a constant presence in Western media these days due to its politics and foreign policy. Less attention is paid to the country's many millennia of culture and its splendid and rich archaeological record. And hardly a word is said about the sustained and large-scale work performed there by Swedish archaeologists. Thus we are pleased to be able to present a paper and bibliography on this underappreciated aspect of Swedish antiquarian research by professor Carl Nylander, an authority in the field and a living link to the Swedish 20th century archaeological fieldwork in Iran.

A fine on-line museum exhibition on the Achaemenid Empire is available in French and English at <http://www.museum-achemenet.college-de-france.fr/>

Carl Nylander, Bokbindaregatan 12B, SE-227 36 Lund
eva.nylander@ub.lu.se

Swedish Research Before 1932

Historically, scholarly contacts between Sweden and Iran were limited, though not uninteresting (37, 73, 83). In the 17th century the travellers Bengt Oxenstierna (1591–1643) and Nils Mattsson Kiöping (c. 1621–80) visited, among other places, Persepolis and Naqsh-e Rostam (9, 37, 73). A Swedish gold coin of 1700 found in the bazaar of Isfahan hints at other early contacts (71).

Swedish philologists made early important contributions to the study of Iranian philology, religion and history, through Nathan Söderblom (1866–1931), H.S. Nyberg (1889–1974), Geo Widengren (1907–94), Stig Wikander (1908–84), Sven Hartman (1917–88), Bo Utas (b. 1938) and several others. Swedish archaeologists, however, had less opportunity to work in modern Iran. Long before fieldwork was possible there was

nonetheless a debate on the problems of Persian art and on the provenance of objects found not only in the Near East but also in Russia and Scandinavia. Around 1900 Sven Hedin (1865–1952), Ture J. Arne (1879–1965) and others discussed problems concerning especially Persian Turkestan and the Silk Road. In 1906–07 Arne worked in eastern Turkey and in 1929 he studied the Turkestan, Uzbekistan and Kazakhstan area.

In 1930 the Reza Shah created a law permitting foreigners to excavate. In 1932, at last, Swedish archaeologists could initiate fieldwork in Iran proper. The results were two major excavations: Shah Tepé directed by Arne from 1932–33, and Takht-i-Suleiman directed by Hans Henning von der Osten, Bertil Almgren and others from 1958–62.



Fig. 1. Takht-i-Suleiman, Azerbaijan, c. 2200 m above sea level. This was the “City of the Warriors’ Fire”, with a great temple, a magical bottomless lake, a great wall and gates reinforced by 38 towers, all dating from the Achaemenid through the Mongolian eras. Aerial photograph 1961/62.

Shah Tepé (1932–33)

In the early 1920s, J.G. Andersson had discovered a previously unknown Neolithic culture (3rd millennium BC) in Northern China. It displayed astonishing similarities with the Tripolie/ Cucuteni culture in southwest Russia and other kindred cultures in western Asia (12,35). In 1927–35, Hedin and his colleagues carried out major investigations in East Turkestan, Inner Mongolia, Tibet and northern China. One aim was to study the age-old Silk Road connections between eastern Asia, Turkmenistan, the Near East and Europe (12,118) and, not least, Persia as an important intermediary between East and West (26, 36, 37, 73, 122). With the same goal, Arne investigated Shah Tepé, one of the first field-work efforts in the rich steppe north of the Asterabad-Gorgan region of eastern Iran. Arne could divide Shah Tepé into four main periods,

stretching roughly from c. 3200 to 1800 BC. The typical burnished grey ware he found was related to the important settlement mounds of Tureng Tepé, Yarim Tepé and Tepé Hissar. The Bronze Age of all those sites came to a more or less simultaneous abrupt end in the early second millennium BC. Shah Tepé was deserted until it became an Islamic cemetery in the 8th century AD. There were rich finds of early painted ware and of black and grey pottery and copper objects (24). Also later finds of silver Arabic coins, glass and faience.

At Shah Tepé, 257 skeletons were uncovered, of which 176 were prehistoric and 81 from the Islamic period c. AD 800–1000. The human skeletons were studied by Carl M. Furst and the animal bones by Johan Amschler: all published in 1939 (28). Amschler documented 18 species of wild and domestic animals, including a very



Fig. 2. Takht-i-Suleiman. Ruins on the shore of the magical lake. Photograph 1961/62.

early horse, a huge boar and, above all, the short-horn giant-bull *Bos brachyceros Arnei*.

The rich finds from the excavation, and other finds from Iran, were exhibited in Stockholm in 1940, and soon the excavation results were published (21, 22, 24, 31, 34).

Luristan Bronzes (1932/33)

There was a longstanding debate in Sweden regarding similarities of bronzes and possible contacts between Scandinavia and Iran. As a contribution to this discussion, Arne brought to Sweden a collection of c. 300 Luristan or Amlash bronzes from north-western Iran. He compared them with finds from other areas, from China, Italy and Scandinavia. The collection is now in the Museum of Mediterranean and Near Eastern Antiquities in Stockholm (14, 19, 25, 29, 30, 49, 83, 86, 119, 127). At the same time a collec-

tion of various objects, a Sasanian stucco and Medieval glass vessels were procured for the National Museum (32, 83).

Takht-i-Suleiman and Zendan-i-Suleiman (Sweden 1958–62)

After working in Germany, America and Turkey, Hans Henning von der Osten (1899–1960) was an inspiring professor in Uppsala from 1951 to 1960 (cf. 71) and renewed Swedish interest in Iranian archaeology, not least through *Die Welt der Perser* and other works (11, 13, 38, 40, 42, 44).

The beautiful and fascinating site of Takht-i-Suleiman, some 2200 m above sea level in Azerbaijan, had long been visited and commented on by early scholars such as Ker Porter who was there in 1819, Henry Rawlinson who saw it in 1837, D.N. Wilber and A.O. Pope in 1937 and, not least, L.-I. Ringbom who wrote about the



Fig. 3. Takht-i-Suleiman. Gatehouse. Photograph 1961/62.

place as a Paradise on Earth in 1958 (43). In that very same year, 1958, at last, a joint German-Swedish-Persian excavation started. It was led by von der Osten, Bertil Almgren (b. 1918) and Rudolf Naumann, then director of the German Institute in Istanbul, with young German, Iranian and Swedish (S. Zachrisson, A. Åman, Y. Jahangir, L. Gezelius and myself) scholars taking part.

Takht-i-Suleiman (figs 1–3) was the important and much discussed site of the holy Shiz and of the *Atur Gushmasp*, the “City of the Warriors’ Fire”, with a great temple, a magical bottomless lake, a great wall and gates reinforced by 38 towers. Only 3 km away was discovered the early sacred mountain crater of Zendan-i-Suleiman. The beautiful landscape thus documented a long history from the prehistoric periods of the 3rd/2nd millennia BC up to the Mongolian pe-

riod with Ghengis Khan’s grandson Abaqa Khan’s summer palace of the 13/14th centuries AD.

At the earlier Zendan-i-Suleiman in 1958–64, German and Swedish archaeologists – von der Osten and Almgren in 1958, Zachrisson-Oehler in 1959 (47) and Oehler-Nylander in 1960 – excavated the impressive prehistoric Mannaean sanctuary from c. 800–600 BC on the volcano-like Zendan (fig. 4). It was related to other 1st millennium BC sites like Ziwiye and Hasanlu. Two main periods were distinguished, one a monumental unfortified sanctuary with much grey pottery, the second a settlement with fine decorated and painted wares, which appears to have met a violent end about 600 BC perhaps at the hands of the Medes. Pottery and other finds tend to date these periods from the beginning of the 8th century to the end of the 7th. There are good reasons to believe that Zendan



Fig. 4. Zendan-i-Suleiman, Azerbaijan. Y. Jahangir and S. Zachrisson enjoy a basket of apricots during excavations at the Mannaeen sanctuary. Photograph 1959.

was an important religious centre of the Mannai, a people known from Assyrian and Urartian written sources.

At the Takht-i-Suleiman (1959–78) the main excavation, directed by German archaeologists R. Naumann, W. Kleiss and D. Huff, concentrated mainly on the beautiful Mongolian summer palace of Abaqa Khan (c. AD 1270) and on the underlying great Sasanian Fire Temple. The latter magnificent structure was probably built by Chosroes I Anosharvan (AD 531–579) and destroyed by the Byzantine emperor Heraclius in 624. Underneath were discovered an earlier temple, most probably of Peroz I (AD 459–484), and, further down, remains of an Achaemenid settlement (6/5th centuries BC).

Us Swedes, Almgren (1959) and Gezelius/Nylander (1961–62), concentrated our work on two parts of the Takht-i-Suleiman's great stone wall with its towers and the impressive mud-

brick system inside it. In addition, the excavations established the stratigraphical sequence of the settlement periods in the area inside (46, 51, 54). These early investigations documented several Mongolian and Early Islamic phases with houses, fireplaces, wells and much pottery from the Near East, from the West and even fine fragments of Tang and Song dynasty pottery from China.

Underneath was documented the great mud-brick wall system (some 10–15 m thick) inside the late Sasanian stone wall. The problem was their relationship. Were they contemporary or was the mud-brick system some hundred or more years earlier? Early Sasanian or perhaps even Parthian? In 1961/62 this was still unclear (51, 54, 71). Only in the excavation of 1966–69 did our German colleague D. Huff, at last and excavating in a new area, resolve the problem. The mud-brick structure was, as it turned out,

the first defence system of Takht-i-Suleiman and dated from the early Sasanian period, most probably being coeval with the first Fire Temple built during the reign of Peroz I.

The Silk Road and Takht-i-Suleiman (1958–59)

In a stimulating paper (48) on the ever-changing Silk Road, Almgren discussed the mysterious flowing waters of Takht-i-Suleiman and Zendan-i-Suleiman. Enigmatic archaeologically observable fluctuations in the Silk Road trade route from China to the Mediterranean were thought by Almgren to be connected with possible climate changes in the mid-1st millennium BC and the 1st millennium AD, parallel to those already observed in contemporary Europe. Because of increased precipitation, these climate fluctuations would have blocked the crucial high passes over the Pamir with snow and ice and thus forced travellers to take another route, most probably northwards, thereby contributing to the prosperity of the Altai region (cf. 115, 122). At the same time this increased precipitation would have resulted in vastly enlarged areas for pasture in the western highland regions, where lack of erosion would make the mountain slopes react intensely to a slight increase in humidity. The result would have been a general multiplication of cattle and perhaps also of people. Almgren hinted at a possibility to understand the varying fortunes of the Takht-i-Suleiman valley in connection with these climatic changes, which were thought to have influenced the use of the water flow of the crater lakes of the Zendan and the Takht.

Achaemenid Architecture and Art (1957–2007)

The Achaemenid period (559–330 BC) offers fairly limited written evidence but, on the other hand, much monumental architecture and art. Scholars have long been interested in the historical problem of the Graeco-Roman world versus Persia and the Orient, i.e. the fundamental understanding of East and West. The Persian culture was often considered peripheral and uninteresting. In 1892 Lord Curzon was not impressed by Persepolis: “It is the same and the same again, and yet again”. In 1905 de Morgan, the excavator of Susa, wrote: “L’art achéméni-

de... fure le plus souvent associé avec le plus complet mauvais goût.” And the prominent art historian B. Berenson in 1954 considered ancient Iran as having nothing but “originality of incompetence”. Such attitudes has often led to a lack of interest in Achaemenid art itself and instead to a concentration on the problems of its background, more of its becoming than of its being.

Consequently scholars debate whether the few touches of perceived artistic quality found at Persepolis (e.g. fig. 5) were especially or even exclusively there thanks to Greek architects and artists. A few Oriental scholars objected, but the idea was accepted by many Classical Mediterranean archaeologists, traditionally experts on problems of style. How to resolve this central problem? (69)

After the Second World War a new generation of young scholars from several countries and various disciplines entered the field of ancient Iran. They had the ambition to collaborate, to change the rigid academic boundaries between the Near Eastern and the Classical disciplines and to analyse Achaemenid culture, art and architecture on its own ground and as a phenomenon sui generis (94, 100, 114).

“Did the King cut the rough rock?” (B. Brecht)

Around 1960 myself (b. 1932) and Ann Britt Peterson-Tilia (1926–88) initiated research on some very basic Achaemenid evidence, the stone. I established the stonework and stone tools in the ancient Near East (56, 69, 112), Urartu (58), Israel (60), Egypt (61), India (108) and Greece. I also made comparative studies (55) and specifically studied the stonework at Pasargadae (57, 69) and Persepolis (82). The importance of masons’ marks was documented (72, 82, 87, 95). Another subject was debated in Teheran in 1973, the ancient Now Ruz (New Year), Persepolis and the brilliant 10/11th century Iranian scholar Al-Biruni (81). In syntheses I discussed Achaemenid imperial art and Ionian Greek and Lydian work in the distant Persian palaces (94, 100, 111, 141).

Peterson-Tilia’s research was different. She and her Italian husband, architect and restorer Giuseppe Tilia (1931–2001), lived and worked from 1965–1979 at Persepolis. Their results were



Fig. 5. Persepolis. Bull's head.

remarkable, penetrating research, rich documentation, brilliant drawings and photography and 19 major publications (63–67, 74–80, 84, 85, 88–92). The first work (63) appeared in 1968. The publications deal with everything, they give documentation, chronology and construction history. Tilia suggested a new interpretation of how and why the central bas-relief of Darius was moved from the great Apadana into the Treasury (76). She documented that Xerxes, not Darius, had created much of the Apadana and the famous bas-reliefs of the Great King and the Crown Prince, and that it was probably Artaxerxes III who had carefully moved the bas-reliefs into the Treasury, now possibly a religious *horoon* (77). In addition the Tiliias studied several other sites in the northern part of the Marvdasht Plain (92), in Pasargadae, Naqsh-e Rostam and on the important water Kor at Dorudzan (85, 92).

Related to this were studies of decoration

and colour on the clothes and shoes of the sculpted kings and soldiers and on other objects like the throne-cover (91). Another worker in the same field was Paavo Roos, who studied the ornaments of the royal dress at Persepolis (70), and Tullia Linders who discussed Greek and Persian *kandys* (104). In 1989 Johan Flemberg and myself resolved the problem of the small but important stone fragment of Darius currently in the Metropolitan Museum of Art. The excavator E. Herzfeld who published it in 1934 called it “one of the finest specimens of Achaemenian art”. However, we could document that the fragment was entirely Greek (110).

The long preoccupation with great and small stones by the two Tiliias and their generosity in collaborating with other colleagues profoundly increased the general knowledge of the physical reality of the Achaemenids and of the complex development of architecture and art, with slow creation, addition and change. However, much

remained to study when, in 1979, the Tilias were forced to leave their beloved work, Persepolis and Iran.

Stones Destroyed

Stones were not only worked and used for creation but sometimes, also interestingly enough, mutilated or destroyed. I studied such iconoclasm in relation to Near Eastern art and the Classical world (96, 108, 126). The broader political destruction of art in the Near East, as well as in the later periods, was further debated (108, 126).

Inscriptions and Texts

In two papers I discussed Iranian inscriptions in Pasargadae (50, 59). Two Greek texts with Iranian dimensions: the 21st Letter of Themistokles and a passage in Xenophon, (62, 117). In 1969 Hugo Montgomery (b. 1932) published a textually based study of Alexander sitting on the throne of the Great King in Susa (68).

Pompeii, Persepolis and Darius “the Worthless King”

The famous mosaic of the battle between Alexander and Darius III was found in 1831 in the Casa del Fauno in Pompeii. It was a fine copy of a lost late-4th century Greek painting of the great battle, the final meeting of East and West and the concluding Persian disaster. In 1982/83 I suggested a new interpretation of the King’s standard, long thought to be a Macedonian signal of attack, a *phoinikis*, and of the heroically dying Iranian, the centrally placed but “unknown soldier” of the mosaic (98, 102).

Darius III, the last Achaemenid king, fought, lost and fled to eastern Bactria. There he was murdered or perhaps ritually killed to save the Kingship. Most historians, ancient and modern, maintain that Darius was “a soft weakling” (Arrian) and “a worthless king (Sir William Tarn). However, in 1965 Geo Widengren (*Die Religionen Irans*, p. 153), briefly but clearly, defended the king: “Darius verfolgt von einem Streitwagen die Kämpfe von Issus und Gaugamela. Als aber die Schlacht verloren ist, wendet er sich zur Flucht, weil seine Pflicht nicht darin besteht zu kämpfen, sondern einfach als König zu existieren. Sehr zu unrecht hat man diese Haltung als Feigheit ausgelegt“. In 1993 I discussed the theme

further and showed how “active” and “passive” aspects of kingship are clearly seen in royal Achaemenid art. On one hand there are seals and coins which show the heroic king fighting his enemies or killing lions; on the other, there are the calm and peaceful scenes of the monumental palatial art at Pasargadae, Persepolis and Susa, the dynamic and the static dimensions of empire (114). In Parthian and Sasanian times the Great King was actually explicitly forbidden to go to war. The debate goes on. But the leading specialist on Iran P. Briant stresses in his monumental book *Darius dans l’ombre d’Alexandre* (2003, pp. 530–531, 554–555) that “L’hypothèse de G. Widengren a pris peu à peu une consistance conceptuelle et une épaisseur documentaire qui donnent corps l’ébauche que l’auteur avait naguère proposée”.

Ancient Musical Instruments in Iran and along the Silk Road

In the fundamental *Encyclopaedia Iranica* (143) is the foundational article “Iranian music, 3000 BC to 1500 AD” by Bo Lawergren (b. 1937). Lawergren – physicist, historian, musician and builder of musical instruments – has published more than 60 articles on aspects of ancient music. 24 are listed below.

Western Iran, the Near East and Mediterranean

Simple music existed already in the Stone Age. In the 6–4th millennia, the social and cultural development in and between Mesopotamia, Iran and Anatolia and the entire Near Eastern and Mediterranean region inspired the creation of harps, lyres, lutes, zithers, drums, trumpets, pipes, flutes and many others. Early Iran was important (99, 107, 121, 129, 131, 136, 143). The earliest known harp (c. 3200 BC) has been found near Susa, and evidence for other musical instruments turn up in the western part of Iran and in Mesopotamia (127). In addition, Lawergren has discussed the relationship between music and musical instruments in Syria, Egypt, Anatolia, Greece and Etruria (106, 116, 124, 129, 142).

Eastern Iran

The huge area of northern and eastern ancient Iran, including modern Afghanistan, Turkme-

nistan and Uzbekistan, was politically very important. The region was rich and central to Iranian religion. Toward the end of the second millennium the god Ahura Mazda and his enemy Angra Mainyu were thought to rule there. This was also the area of the priest Zoroaster, the language Avesta and the holy poems Gathas, of important kings and peoples, of riches and treasures. In Marv, Turkestan, in 1877 was found the great gold and silver "Treasure of Oxus" comprised of Achaemenid and Scythian objects. After 1960, Russian and other archaeologists discovered remains of the "Oxus civilization" of the 4th and 3rd millennia BC (135).

The Oxus Trumpets

Already in 1841 the Shah Mahammed had received "ancient gold vessels and other curious objects" from eastern Iran. Today we know of 43 of the strange "Oxus trumpets": seven gold, 27 silver and nine copper. They are very small (60–123 mm long) and nine of them carry very small (20–30 mm) and beautiful faces. For 150 years various famous scholars tried to understand them (de Bode 1844; Rostovtzeff 1920; Schmidt 1937; Ghirshman 1977; Amiet 1997) but without success. Most recently Lawergren has analyzed them, their use and societal role (133–135, 139). He dates the trumpets to c. 2000 BC. His analyses show that the little "trumpets" are not strictly speaking musical instruments but intended to make a very high-pitched signal (two octaves above middle C).

The Oxus objects' miniature size is unprecedented, the use of precious materials is unparalleled and their exquisite design must have had a specific purpose, suggesting an elite environment. Thus, they were not musical instruments and their small size made them useless as battle signal instruments. Instead the soft and sliding sound of the little trumpet is similar to the call of a deer. At rutting time the deer emit sounds similar to those of an Oxus trumpet. But if they were hunting instruments, then why were they made of gold, silver and copper, and why so finely decorated? It is clear that the trumpets had religious and social importance. In many countries, big game hunting was reserved for the ruler and the social elite (Egypt, Assyria but also

Medieval England, etc.). Lawergren documents the social structure of the "trumpet upper class", the wealth of this elite and their graves (one with three different trumpets and four small golden mouflon faces). In the end of his most exciting work Lawergren discusses the profound relationships between prehistoric people, animals and music.

The Silk Road between Iran and China

Swedish scholars such as Hedin (2, 4), Andersson (12), Arne (26), Almgren (48), Gyllensvärd (73) and others (118) have worked on aspects of the meeting of East and West and of the Silk Road. Lawergren has formulated new problems and made important discoveries. In 1997 he stated: "The study of ancient musical migration between China and the West (i.e. the Near Eastern region between Anatolia and Iran) has had a long but not always enlightening history" (122). He himself worked for several years on the communications from the Mediterranean via Iran along the Silk Road to China and Japan (120, 122, 137, 138, 140).

Lawergren discusses Iranian issues far from the Achaemenid centre. A 4th century BC harp from the deep-frozen Pazyryk cemetery in south Siberia has also been studied by Lawergren (115, 122). It can be connected to another Iranian find from the same site, a huge royal Achaemenid carpet. Lawergren also discusses beautiful tuning pegs and tuning keys for string instruments found in China. Some show Iranian traits (122, 128). He stresses the fact that ancient musical instruments, which were rarely shown in Central Asia before the arrival of Buddhism, became common afterwards (120, 122, 128, 137, 140). Two reasons are given: Buddhists delighted in image-making, and China had a vast appetite for Western instruments, principally from Iran. The Silk Road was a conduit for musical instruments, mainly flowing from the west to the east.

Iran 1957–2007

In 1957, when as a young archaeologist I was about to leave Athens for Iran, the famous classical scholar and excavator of Olympia Emil Kunze said to me: "Aber, junger Freund, was wollen Sie denn da? Sie haben doch Alles hier!"

The past 50 years of Persian archaeology have shifted Iran firmly from the periphery to the central agenda of the disciplines of archaeology and history.

Bibliography

1890–1909

1. Hedin, Sven, *Der Demawend nach eigener Beobachtung*. Verh. Ges. Erdk., XIX. Berlin 1892.
2. Hedin, Sven, *Through Asia*. London 1898.
3. Martin, Fredrik, *The Persian lustre vase in the Imperial Hermitage at St. Petersburg and some fragments of lustre vases found near Cairo at Fostat*. Stockholm 1899.
4. Hedin, Sven, *Eine Routenaufnahme durch Ostpersien*. Stockholm 1906, 1918.

1910–19

5. Hedin, Sven, *Zu Land nach Indien durch Persien, Seistan, Belutschistan*. Leipzig: I, 1910; II, 1920.
6. Arne, Ture J., Les relations de la Suède et de l'Orient pendant l'âge des vikings. *Congrès préhistorique de France. Session de Beauvais*, 1909. Paris 1910. Pp. 586–592.
7. Arne, Ture J., Ein persisches Gewichtssystem in Schweden. *Orientalisches Archiv* 2. 1912. Pp. 122–127.
8. Arne, Ture J., *La Suède et l'Orient. Études archéologiques sur les relations de la Suède et de l'Orient pendant l'âge des vikings*, Archives d'études orientales 8. Uppsala 1914.

1920–29

9. Hedin, Sven, *Resare-Bengt. En levnadsteckning*. 1921.
10. Ekholm, Gunnar, Orientaliska inflytelser på Nordens bronsålderskultur. *Svensk Tidskrift* 14. 1924. Pp. 320–330.
11. Osten, Hans Henning von der, Seven Parthian Statuettes. *Art Bulletin* VIII. 1926. Pp. 169–174.
12. Andersson, John G., Der Weg über die Steppe. *Bulletin. The Museum of Far Eastern Antiquities* 1. 1929. Pp. 143–163.

1930–39

13. Osten, Hans Henning von der, The Ancient Seals from the Near East in Metropolitan Museum. *Bulletin of the College Art Association* XIII. 1931. Pp. 221–241.
14. Koch, B., Oseberg und Luristan. *Belvedere* X. 1931. Pp. 17–22.

15. Lamm, Carl Johan, Les verres trouvés à Suse. *Syria* XII. 1931. Pp. 358–367.
16. Arne, Ture J., Den persiska konstutställningen i London 1931 och den andra internationella kongressen för persisk konst. *Fornvännen* 27. 1932. Pp. 114–118.
17. Thordeman, Bengt, The Asiatic splint armour in Europe. *Acta Archaeologica* 4. Copenhagen 1933. Pp. 117–150.
18. Thordeman, Bengt, A Persian splint armour. *Acta archaeologica* 5. Copenhagen 1934. Pp. 294–296.
19. Arne, Ture J., Luristan and the West. *Eurasia septentrionalis antiqua* 9. 1934. Pp. 277–284.
20. Arne, Ture J., Benidoler från Persien. Ett kronologiskt problem. *Finska Fornminnesföreningens Tidskrift* 40. Helsinki 1934. Pp. 32–36.
21. Arne, Ture J., The Swedish archaeological expedition to Iran 1932–1933. *Acta Archaeologica* 6. Copenhagen 1935. Pp. 1–48.
22. Arne, Ture J., La steppe Turkomane et ses antiquités. *Hyllningskrift tillägnad Sven Hedin på 70-årsdagen den 19 febr. 1935*. Stockholm 1935. Pp. 28–43.
23. Thordeman, Bengt, Die asiatischen Rüstungen der letzten Sven Hedin-Expedition. *Hyllningskrift tillägnad Sven Hedin på hans 70-årsdag den 19 febr. 1935*. Stockholm 1935. Pp. 215–224.
- 23a. Lamm, Carl Johan & Dora, *Glass from Iran in the National Museum*. Stockholm & London 1935. Pp. 1–21, 48 drawings.
24. Berglin, Martin, Keramische Funde von den Tepé's der Turkmensteppe, *Svenska Orientsällskapets Årsbok* 1937. Pp. 26–38.
25. Arne, Ture J., Spegel från Luristan. *Kulturhistoriska studier tillägnade Nils Åberg* 24/7 1938. Stockholm 1938. Pp. 86–90.
26. Arne, Ture J., En sino-iransk kopp. *Fornvännen* 33. 1938. Pp. 107–113.
27. Lamm, Carl Johan, Glass and hard stone vessels. *Survey of Persian Art*. 1938.
28. Fürst, Carl M. & Amschler, Johan W., *The skeletal material collected during the excavations of dr. T. J. Arne in Shah Tepé at Astrabad-Gorgan in Iran, and Tierreste der Ausgrabungen von dem "Grossen Königshügel" Shah Tepé in Nord-Iran*. Reports from the scientific expedition to the North-Western provinces of China under the leadership of Dr. Sven Hedin 7, *Archaeology* 4. Stockholm 1939.
29. Arne, Ture J., Keulenköpfe, Szepter und Handgriffe von Luristan. *Prussia* 33. 1939. Pp. 15–20.

1940–49

30. Arne, Ture J., Klappern und Schellen aus Luristan. *Serta Hofferiana* I. Zagreb 1940. Pp. 53–55.
31. Arne, Ture J., *Forniransk kultur. Utställning av fynden från svenska Iran-expeditionen 1932–33 samt andra fynd från Iran*. Stockholm 1940.
32. Arne, Ture J., A Sassanian Stucco-Relief. *Ethnos*. 1941.
33. Arne, Ture J., Kragflaskor från Turkmen-steppen i norra Iran. *Fornvännen* 37, 1942. Pp. 426–430.
34. Arne, Ture J., *Irans fornkultur*. Stockholm 1944.
35. Arne, Ture J., *Excavations at Shah Tepé*, Iran. Reports from the scientific expedition to the North-Western provinces of China under the leadership of Dr. Sven Hedin 7, *Archaeology* 5. Stockholm 1945.

1950–59

36. Arne, Ture J., Central and Northern Asia. *Swedish Archaeological Bibliography* 1931–1948. Stockholm, 1951. Pp. 282–287.
37. Arne, Ture J., *Svenskarna och Österlandet*. Stockholm 1952.
- 37a. Lamm, Carl Johan, Partisk och sasanidisk konst. *Konstens världshistoria* 4. Stockholm 1949. Pp. 1–30.
38. Osten, Hans Henning von der, Geschnittene Steine aus Ost-Turkestan im Ethnographischen Museum zu Stockholm. *Ethnos*. 1952. Pp. 158–216.
39. Arne, Ture J. Near Eastern. Central and Northern Asia. *SAW* 1949–1953. 1956. Pp. 220–225.
40. Osten, Hans Henning von der, *Die Welt der Perser*. Stuttgart 1956.
41. Widengren, Geo, Some remarks on riding costumes and articles of dress among Iranian peoples in Antiquity. *Artica. Studia Ethnographia Uppsaliensia* XI. Uppsala 1956. Pp. 228–276.
42. Osten, Hans Henning von der, *Altorientalische Siegelsteine der Sammlung Hans Silvius von Auloch*. Uppsala 1957.
43. Ringbom, Lars-Ivar, *Paradisus Terrestris. Myt, bild och verklighet*. Acta Societatis Scientiarum Fennicae, Nova series C, I. Helsinki 1958.

1960–69

44. Osten, Hans Henning von der, Altorientalische Siegelsteine. *Medelhavsmuseet, Bulletin* 1. Stockholm 1961. Pp. 20–41.
45. Osten, Hans Henning von der, & Naumann, Rudolf, *Takht-i-Suleiman. Vorläufiger Bericht über die*

Ausgrabungen 1959. Teheraner Forschungen hrsg. vom Deutschen Archäologischen Institut, Abt. Teheran 1. Berlin 1961.

46. Almgren, Bertil, Der Suchgraben. *Takht-i-Suleiman. Vorläufiger Bericht über die Ausgrabungen* 1959. Berlin 1961. Pp. 66–69.
47. Zachrisson, Sune & Oehler, Hans Georg, Die Ausgrabungen auf dem Zindan-i-Suleiman. *Takht-i-Suleiman. Vorläufiger Bericht über die Ausgrabungen* 1959. Berlin 1961. Pp. 70–81.
48. Almgren, Bertil, Geographical aspects of the Silk road especially in Persia and East Turkestan. *The Museum of Far Eastern antiquities, Stockholm. Bulletin* 34. Stockholm 1962. Pp. 93–106.
49. Arne, Ture J., The Collection of Luristan bronzes. *The Museum of Mediterranean and Near Eastern antiquities. Medelhavsmuseet. Bulletin* 2. Stockholm 1962. Pp. 5–17.
50. Nylander, Carl, Bemerkungen zu einem Inschriftfragment in Pasargade. *Orientalia Suecana* 11. Uppsala 1962. Pp. 121–125.
51. Gezelius, Lars & Nylander, Carl, Der Suchgraben an der Ostseite des Plateaus des Takht-i-Suleiman. *Archäologischer Anzeiger*. Berlin 1962, pp. 670–685; 1964, pp. 57–77.
52. Geijer, Agnes, Some thoughts on the problems of early Oriental carpets. *Ars orientalis* 5. Baltimore 1963. Pp. 79–87.
53. Geijer, Agnes, A Silk from Antinoe and Sassanian Textile Art. A propos of a recent Discovery. *Orientalia Suecana* 12. Uppsala 1963. Pp. 3–36.
54. Gezelius, Lars & Nylander, Carl, Der Suchgraben an der Ostseite des Plateaus des Takht-i-Suleiman. *Archäologischer Anzeiger*. Berlin 1964. Pp. 57–77.
55. Nylander, Carl, Old Persian and Greek Stonecutting and the Chronology of Achaemenian Monuments. *American Journal of Archaeology* 69. Princeton 1965. Pp. 49–55.
56. Nylander, Carl, Clamps and Chronology, *Iranica antiqua* 6. Leiden 1966. Pp. 130–146.
57. Nylander, Carl, The Toothed Chisel in Pasargadae: Further Notes on Old Persian Stonecutting. *American Journal of Archaeology* 70. Princeton 1966. Pp. 373–376.
58. Nylander, Carl, Remarks on the Urartian Acropolis at Zernaki Tepe. *Orientalia Suecana* XIV/XV. Uppsala 1966. Pp. 141–154.
59. Nylander, Carl, Who wrote the Inscriptions at

- Pasargadae? *Orientalia Suecana* 16. Uppsala 1967. Pp. 135–180.
60. Nylander, Carl, A Note on the Stonecutting and Masonry of Tel Arad. *Israel Exploration Journal* 17. Jerusalem 1967. Pp. 56–59.
61. Nylander, Carl, Bemerkungen zur Steinbruchgeschichte von Assuan. *Archäologischer Anzeiger*. Berlin 1968. Pp. 6–10.
62. Nylander, Carl, Assyria Grammata: Remarks on the 21st “Letter of Themistokles”. *Opuscula Atheniensia* 8. Stockholm 1968. Pp. 119–136.
63. Tilia, Ann Britt, A study on the methods of working and restoring stone and on the parts left unfinished in Achaemenian architecture and sculpture. *East and West* N.S. 18. Rome 1968. Pp. 67–95.
64. Tilia, Ann Britt, New Contributions to the Knowledge of the Building History of the Apadana: Discovery of a Wall on the Inside of the Facade of the Eastern Apadana Stairway. *East and West* N.S. 18. Rome 1968. Pp. 96–108.
65. Tilia, Ann Britt, A Recent Discovery made during the Restoration Work at Persepolis of a Wall on the Inside of the Façade of the Eastern Apadana Stair. *Memorial Volume, Vth International Congress of Iranian Art and Archaeology*. Tehran 1968. Pp. 363–367.
66. Tilia, Ann Britt, Reconstruction of the parapet on the Terrace wall at Persepolis, south and west of Palace H. *East and West* N.S. 18. Rome 1969. Pp. 9–43.
67. Tilia, Ann Britt, Restoration Work in Progress on the Terrace of Persepolis. *Bulletin of the Asia Institute of Pahlavi University*. Shariz 1969. Pp. 52–69.
68. Montgomery, Hugo, Thronbesteigung und Klagen. Eine orientalische Sitte von nicht-orientalischen Quellen wiedergegeben. *Opuscula Atheniensia* 9. Stockholm 1969. Pp. 1–19.
- 1970–79**
69. Nylander, Carl, *Ionians in Pasargadae: Studies in Old Persian Architecture*. Boreas 1. Uppsala 1970 (in Iranian 1975).
70. Roos, Paavo, An Achaemenian sketch slab and the ornaments of the royal dress at Persepolis. *East and West* N.S. 20. Rome 1970. Pp. 51–59.
71. Nylander, Carl, *The Deep Well*. Pelicon 1971.
72. Nylander, Carl, Foreign Craftsmen in Achaemenian Persia, *The Memorial Volume of the Vth International Congress of Iranian Art and Archaeology, 11th–18th April, 1968*. 1972. Pp. 311–318.
73. *Iran through the ages. A Swedish anthology*. Ed. A. Ådahl. Stockholm 1972 (with H.S. Nyberg, G. Utas and others).
74. Tilia, Ann Britt, *Studies and Restorations at Persepolis and Other Sites of Fars* I. IsMEO Reports and Memoirs XVI. Rome 1972. Pp. 1–416.
75. Tilia, Ann Britt, Restoration work at Persepolis, Naqs-i Rostam and Pasargadae. Rescue work at Dorudzan. IsMEO Reports and Memoirs XVI:1. 1972. Pp. 1–125.
76. Tilia, Ann Britt, Contribution to the knowledge of the building history of the Apadana. IsMEO Reports and Memoirs XVI:2. 1972. Pp. 127–173.
77. Tilia, Ann Britt, The bas-reliefs of Darius in the Treasury of Persepolis and their original position. IsMEO Reports and Memoirs XVI:3. 1972. Pp. 175–240.
78. Tilia, Ann Britt, The destroyed Palace of Artaxerxes I at Persepolis and related problems. IsMEO Reports and Memoirs XVI:4. 1972. Pp. 243–392.
79. Tilia, Ann Britt, Recent discoveries at Persepolis. *Summary of Papers to be delivered at the 6th International Congress of Iranian Art and Archaeology*. Oxford 1972. Pp. 86–87.
80. Tilia, Ann Britt, Discoveries at Persepolis 1972–73. *Proceedings of the 2nd Annual Symposium of Archaeological Research in Iran* 1973. Tehran 1974. Pp. 239–254.
81. Nylander, Carl, Al-Beruni and Persepolis. *Actes du congrès de Shiraz 1971: commemoration Cyrus, I, Hommage universel* 1974 (Acta Iranica, I, 1). Pp. 137–150.
82. Nylander, Carl, Masons’ Marks in Persepolis: a Progress Report. *Proceedings of the IInd Annual Symposium on Archaeological Research in Iran 29th October–1st November, 1973*. Tehran 1974. Pp. 216–222.
83. Ådahl, Karin, *Persisk konst i Sverige*. Stockholm 1973.
84. Tilia, Ann Britt, Persepolis sculptures in the light of new discoveries (appendix to A. Farkas, *Achaemenid Sculpture*, 1974). Pp. 127–134.
85. Tilia, Ann Britt, Discovery of an Achaemenian Palace near Takht-i Rostam to the North of the Terrace of Persepolis. *IRAN* 12. London 1974. Pp. 200–204.
86. Marino-Hultman, Pat, Bone Figures from Iran in Medelhavsmuseet’s “Luristan Collection”. *Bulletin Medelhavsmuseet* 9. Stockholm 1974. Pp. 61–65.
87. Nylander, Carl, Anatolians in Susa – and Persepo-

- lis? *Monumentum H.S. Nyberg* (Acte Iranica, II, 6). 1975. Pp. 317–323.
88. Tilia, Ann Britt, Recent Discoveries at Persepolis. *American Journal of Archaeology* 81. Princeton 1977. Pp. 67–77.
89. Tilia, Ann Britt, *Studies and Restorations at Persepolis and Other Sites of Fars* II. ISMEO Reports and Memoirs XVIII. Rome 1978.
90. Tilia, Ann Britt, The Terrace Wall of Persepolis. ISMEO Reports and Memoirs XVIII:1. Rome 1978. Pp. 1–28.
91. Tilia, Ann Britt, Colour in Persepolis. ISMEO Reports and Memoirs XVIII:2. Rome 1978. Pp. 29–70.
92. Tilia, Ann Britt, A Survey of Achaemenian sites in the Northeastern part of the Marvdasht plain. A preliminary report. ISMEO Reports and Memoirs XVIII:3. Rome 1978. Pp. 73–92.
93. Ådahl, Karin, A Fragment from Persepolis. *Bulletin of the Museum of Mediterranean and Near Eastern Antiquities* 13. Stockholm 1979. Pp. 56–59.
94. Nylander, Carl, Achaemenid imperial art. *Power and Propaganda: a Symposium on Ancient Empires*. Ed. M. Trolle Larsen. Copenhagen 1979. Pp. 345–359.
95. Nylander, Carl, Masons' Marks in Persepolis. *Akten des VII. internationalen Kongresses für iranische Kunst und Archäologie, München 7.-10. September, 1976*. Archäologische Mitteilungen aus Iran, Ergänzungsband 6. Berlin 1979. Pp. 236–239.
- 1980–89**
96. Nylander, Carl, Earless in Nineveh: who mutilated "Sargon's" head? *American Journal of Archaeology* 84. Princeton 1980. Pp. 329–333.
97. Nylander, Carl, Skudra och Yauna-Takabara – folken på andra sidan havet. *Trakerna*. Statens Historiska museum. Stockholm 1980. Pp. 102–113.
98. Nylander, Carl, Il milite ignoto: un problema nel mosaico di Alessandro. *La regione sotterrata del Vesuvio: studi e prospettive. Atti del convegno internazionale, 11-15 novembre, 1979*. Naples 1982. Pp. 689–695.
99. Lawergren, Bo, Acoustics of Musical Bows, *Acustica* 51. 1982. Pp. 63–65.
100. Nylander, Carl, Architecture greque et pouvoir persan. *Architecture et société. De l'archaïsme grec à la fin de la république romaine. Actes du colloque international organisé par le Centre National de la Recherche Scientifique et l'École Française de Rome, Rome 2-4 déc.* 1980. Collection de l'École Française de Rome 66. Paris and Rome 1983. Pp. 265–268.
101. Nylander, Carl, Introduction to S. Donadoni, 'L'Egitto achemenide'. *Modes de contacts et processus de transformation dans les sociétés anciennes. Actes du colloque de Cortone, 24-30 mai 1981*. Collection de l'École Française de Rome 67. Pisa and Rome 1983. Pp. 41–43.
102. Nylander, Carl, The Standard of the Great King: a problem in the Alexander mosaic. *Opuscula Romana* 14. Stockholm 1983. Pp. 19–37.
103. Nylander, Carl, Den persiske mannen: ett stilproblem i klassisk-orientalisk arkeologi. *Om stilforskning*. Kungl. Vitterhetsakademiens Konferens 9. Stockholm 1983. Pp. 117–128.
104. Linders, Tullia, The kandys in Greece and Persia. *Opuscula Atheniensia* 15. Stockholm 1984. Pp. 107–114.
105. Lawergren, Bo, Cylinder Kithara in Etruria, Greece and Anatolia. *Imago Musicae: international yearbook of musical iconography* 1. 1984. Pp. 147–174.
106. Lawergren, Bo & Gurney, O.R., Sound Holes and Geometrical Figures, Clues to the Terminology of Ancient Mesopotamian Harps. *Iraq* 49. London 1987. Pp. 37–52.
107. Lawergren, Bo & Gurney, O.R., Mesopotamian Terminology of Harps and Sound Holes. *The Archaeology of Early Music Cultures*. Bonn 1988. Pp. 175–187.
108. Nylander, Carl, Masters from Persepolis? A Note on the Problem of the Origins of Maurya Art. *Orientalia Iosephi Tucci memoriae dicata*. Serie Orientale Rome 56,3. Rome 1988. Pp. 1029–1038.
109. Nylander, Carl, Imago Mutilata: Iconoclasm as a Counter-Language. National Gallery of Art. *Center* 8. Washington D.C. 1988. Pp. 102–103.
110. Nylander, Carl & Flemberg, Johan, A Foot-note from Persepolis. *Akurgal'a Armagan. Festschrift Akurgal*. Ed. Cevdet Bayburtluoglu. Anadolu/ Anatolia 22. Ankara 1989. Pp. 57–68.
- 1990–99**
111. Nylander, Carl, Considérations sur le travail de la pierre dans la culture perse. *Pierre éternelle du Nil au Rhin: carriers et prefabrication*. Coord. scientifique Marc Waelkens. Brussels 1990. Pp. 73–86.
112. Nylander, Carl, The toothed chisel. *Miscellanea etrusca e italica in onore di Massimo Pallottino* 2. *Archaeologica classica* 43. Rome 1991. Pp. 1037–1052.

113. Rashid, Khalid, *Det forntida Kurdistan: forskning om mederna*. Spånga 1992.
114. Nylander, Carl, Darius III: the coward king. Point and counterpoint. *Alexander the Great: reality and myth*. Analecta Romana Instituti Danici, Suppl. 20. Rome 1993. Pp. 145–159.
115. Lawergren, Bo, The Ancient Harp of Pazyryk – a Bowed Instrument? *Foundations of Empire: Archaeology and Art of Eurasian Steppes*. Los Angeles 1992. Pp. 101–116.
116. Lawergren, Bo, Lyre in the West (Italy, Greece) and the East (Egypt, the Near East), ca. 2000–400 B.C. *Opuscula Romana* 19. Stockholm 1993. Pp. 55–76.
117. Nylander, Carl, Xenophon, Darius, Naram-Sin: a note on the King's "Year". *Acta Instituti Romani Regni Sueciae Octavo* 21. *Opus mixtum: essays on ancient art and society*. Stockholm 1994. Pp. 57–59.
118. *Det okända Centralasien – en utmaning för svensk forskning*. Eds Staffan Rosén & Bo Utas. Uppsala 1994.
119. Marino-Hultman, Pat, *Ancient Persian Metalwork: the collection of Luristan bronzes at Medelhavsmuseet*. Medelhavsmuseet Skrifter 20. Stockholm 1996.
120. Lawergren, Bo, The Spread of Harps Between the Near and Far East During the First Millennium A.D.: Evidence of Buddhist Musical Cultures on the Silk Road. *Silk Road Art and Archaeology* 4. Kamakura 1996. Pp. 233–275.
121. Lawergren, Bo, Harfe (Antike) pp. 39–62; Leier (Altertum), pp. 1011–1038; Mesopotamien (Musikinstrumente), pp. 143–174. *Die Musik in Geschichte und Gegenwart*. Kassel & Stuttgart 1996–97.
122. Lawergren, Bo, To Tune a String: Dichotomies and Diffusions between the near and far east. *Ultra terminum vagari. Scritti in onore di Carl Nylander*. Rome 1997. Pp. 175–192.
123. Rausing, Gad, From Persia and Byzantium to Jelling. *Ultra terminum vagari. Scritti in onore di Carl Nylander*. Rome 1997. Pp. 331–338.
124. Lawergren, Bo, Distinctions between Canaanite, Philistine and Israelite Lyres, and their Global Lyrical Contexts. *Bulletin of the American Schools of Oriental Research* 309. Missoula 1998. Pp. 41–68.
125. Nylander, Carl, The Mutilated Image: "We" and "They" in History – and Prehistory? *The World-view of Prehistoric Man*. KVHAA Conferences 40. Stockholm 1998. Pp. 235–251.
126. Nylander, Carl, Breaking the Cup of Kingship. An Elamite Coup in Nineveh? *Iranica Antiqua* 24. Leiden 1999. Pp. 71–83.
- 2000–06**
127. Marino-Hultman, Pat, *Ancient Persian metalwork: the collection of Luristan bronzes at Medelhavsmuseet*. Medelhavsmuseets Skrifter 21. Stockholm 2000.
128. Lawergren, Bo, String, *Music in the Age of Confucius*. Smithsonian Institution. Washington, D.C. 2000. Pp. 65–85.
129. Lawergren, Bo, The Beginning and End of Angular Harps, *Studien zur Musikarchäologie 1: Saiteninstrumente im archäologischen Kontext*. Rahden 2000. Pp. 53–64.
130. *Swedish Archaeological Bibliography 1882–1938*. Eds S. von Essen & S. Welinder. Stockholm 2001.
131. Lawergren, Bo, Iran (ancient). *The New Grove Dictionary of Music and Musicians* 12. London & New York 2001. Pp. 521–530.
132. Lawergren, Bo, Parthian empire. *The New Grove Dictionary of Music and Musicians* 19. London & New York 2001. Pp. 172–173.
133. Lawergren, Bo, An Introduction to Oxus Trumpets, ca. 2000 B.C. *Studien zur Musikarchäologie III*. Berlin 2002. Pp. 519–525.
134. Lawergren, Bo, Oxus Trumpets: Acoustics and Sounds. *Journal of the Acoustical Society of America* 2003. Woodbury, N.Y.
135. Lawergren, Bo, Oxus Trumpets, ca. 2200–1800 BCE: Material overview, Usage, Social role, and Catalog. *Iranica Antiqua* 38. Leiden 2003. Pp. 41–118.
136. Lawergren, Bo, Harp (cang). *Encyclopaedia Iranica* 12:1. London 2003. Pp. 7–13.
137. Lawergren, Bo, Western Influences on the Early Chinese Qin-Zither. *Bulletin of the Museum of Far Eastern Antiquities* 75. Stockholm 2003. Pp. 79–109.
138. Lawergren, Bo, Harps, Lutes and Music Along the Silk Road: A First Millennium Migration. *The Silk Road Project*. University of California. Berkeley 2003. Pp. 52–55.
139. Lawergren, Bo, The Acoustical Context of Oxus Trumpets. *Proceedings of the International Symposium on Musical Acoustics* 2004. CD-ROM ISBN 4-9980602-4-4.
- 139a. Jahangir, Yassi *I hjärtan av Iran. En kortfattad mynt-historia med utgångspunkt i Pars/Fars – det egentliga Persien*. Kungl. Myntkabinettets utställningskatalog 42. Stockholm 2004. Pp. 1–18.

140. Lawergren, Bo, Musical Instruments on Silk Road: Their Musical and Societal Dynamics. *The Music and Culture of the Silk Road*. Seoul 2005. Pp. 99–115.
141. Nylander, Carl, Stones for Kings: Stone-working in Ancient Iran. *Architetti, capomastri, artigiani. L'organizzazione dei cantieri e della produzione artistica nell'Asia ellenistica, Studio offerti a Domenico Facenna nel Suo Ottantesimo Compleanno, a cura di Pierfrancesco Callieri*. IsMEO, Serie Orientale Roma C. Rome 2006. Pp. 121–136.
142. Lawergren, Bo, Etruscan Musical Culture and its Wider Greek and Italian Context. *Etruscan Studies* 10 (2007). Detroit. (in prep.)
143. Lawergren, Bo, Iranian music, 3000 B.C. to 1500 A.D. *Encyclopaedia Iranica*. (in prep. 2007).