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A documentation in stone of Acarina at the Roman Temple of BACCHUS in Baalbek, Lebanon about 150 AD*

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Abstract

A series of four sculptures of Acarina, measuring approximately 24 cm long and 20 cm wide, have been recently discovered at the monumental Roman site in Baalbek, Lebanon. At the Temple of Bacchus carved into the ceiling of the peristyle, 19 m high, on the northern side are four rhomboids, each containing a sculpture of an Acarina. While Acarina have been reported in literature since the time of Homer, about 850 BC, it would appear that these would be the first recognizable representation of them.

Key words:

Résumé

Un groupe de quatre sculptures d'Acariens, chacune mesurant environ 24 cm de long et 20 cm de large, a été découvert récemment dans le site monumental de Baalbek au Liban. Ces sculptures en haut-relief se trouvent individuellement à l'intérieur de rhomboides situés à 19 m de hauteur dans la voûte du péristyle nord du Temple de Bacchus. Alors que mention soit faite d'acariens dans la littérature remontant à Homère en 850 av. J.-C., il semble s'agir ici de leur première représentation reconnaissable.

Introduction

The present note reports on what could be the earliest visual evidence we have that Acarina were very much an acknowledged part of people's lives 18 centuries ago as well as being probably the earliest artistic depiction of their details. In a temple primarily decorated with human personages and vegetative and floral patterns, four remarkably preserved stone carvings of Acarina were recently discovered on a visit to Lebanon.

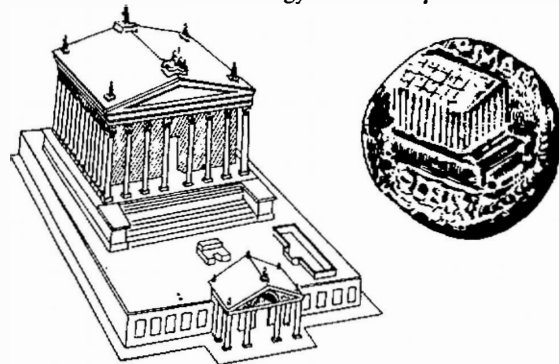
* Received 22.VIII.1994.

BAALBEK ("City of Baal")

In May, 1994 in Baalbek, Lebanon, 86 km north-east of Beirut, situated in the Bekaa plain near the foot of the Anti-Libanus range of mountains, a visit was made to its outstanding, mainly Roman, ruins which are considered one of the wonders of the ages.

Baalbek was originally named after the Phoenician god Baal, derived from the early association of the town with the worship of Baal, the name of innumerable local gods controlling fertility of the soil and of domestic animals among ancient semitic peoples. The Greeks later called it *Heliopolis*, or City of the Sun, and the Romans made it a major worship site for their god Jupiter.

Effigy of the Temple of Bacchus



Restoration of the Temple of Bacchus

Plate I. View of a restoration of the Temple of Bacchus from AWAD, 1977-78 after WIEGAND, 1921. Coin showing effigy of the Temple of Bacchus from AWAD, 1977-78.

European attention was first directed to the ruins at Baalbek in the 16th century but it was not until 1898-1905 that a German Archaeological Mission in charge of Otto PUCHSTEIN excavated, along with other findings on the site, the two huge Roman temples there: the Temple of Jupiter and the smaller Temple of Bacchus. In the exhaustive and majestic publications of Theodor WIEGAND (1921-1925) the results of the findings at the Temple of Bacchus are beautifully illustrated with detailed architectural drawings and photographs.

The elaborately decorated Temple of Bacchus (Pl. I) is said to be the best preserved Roman temple in the world (JIDEJIAN, 1975: 30). It was at first thought to have been dedicated to Dionysus because of the vines which abound as decoration, other scholars held that the temple was dedicated to the goddess Venus, others to Mercury-Bacchus. It is called today the "Temple of Bacchus" mainly because a number of sculptured reliefs have been interpreted as scenes from the childhood of the god (JIDEJIAN, 1975: 31) citing PICARD, 1939. She goes on to say that it is not sure who actually was the god or gods worshipped in the Temple of Bacchus.

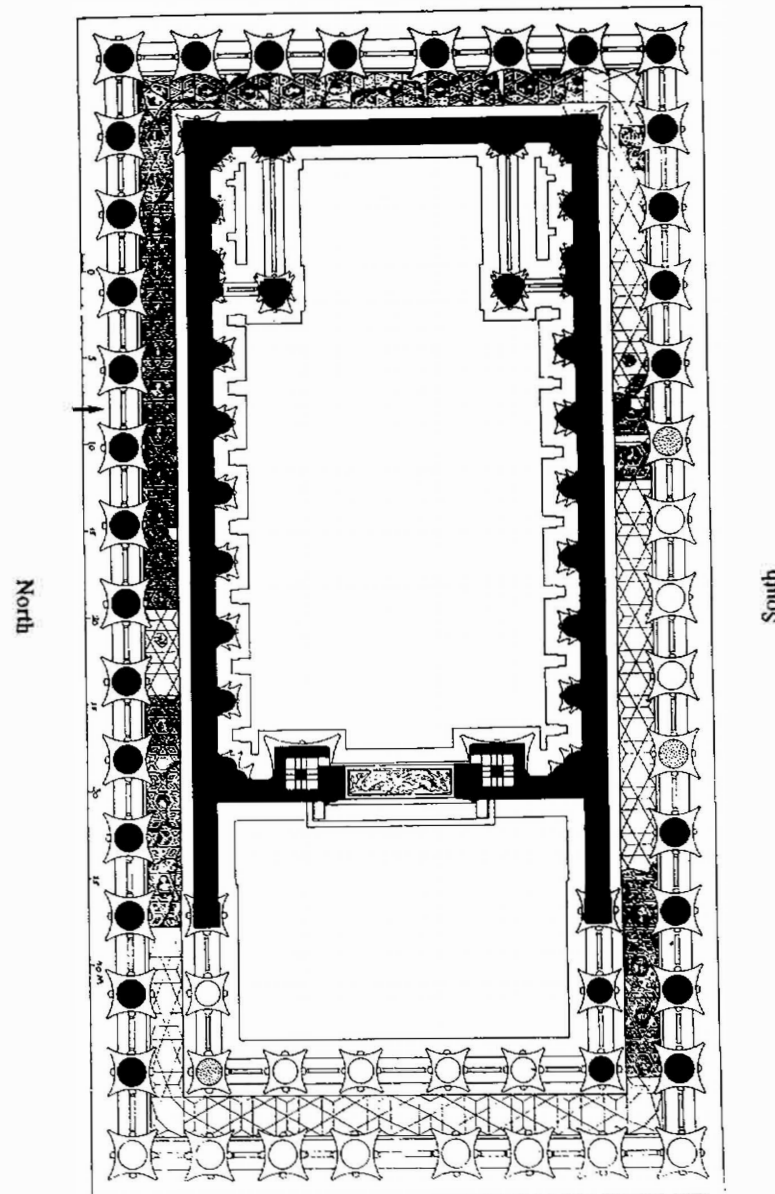


Plate II. Shows plan of the Temple of Bacchus (WIEGAND, 1921, Tafel 5). The arrow indicates the position between columns 10 and 11 of the 4 rhomboids containing acarian sculptures. They are at the intersection of stars 16 and 17 and between hexagons 16 and 17.

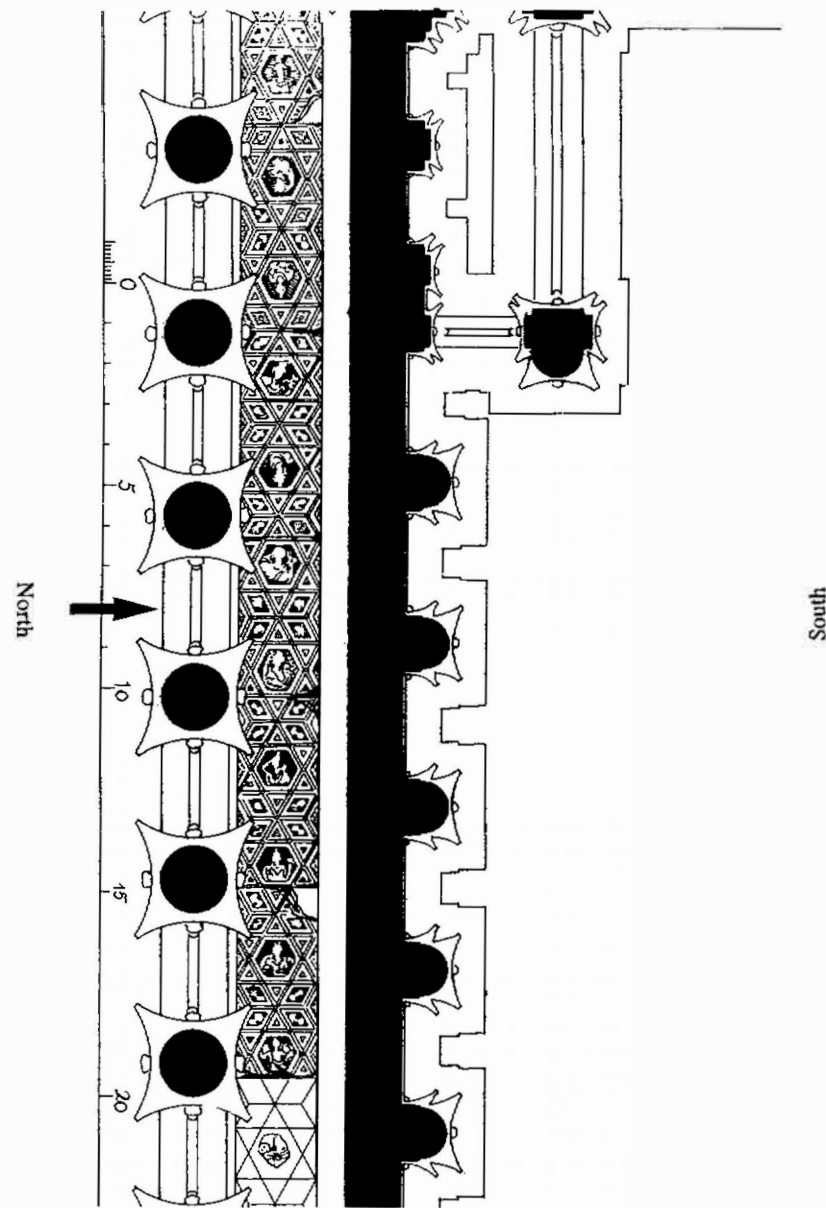


Plate II A. Enlarged view of section of Plate II showing exact location of rhomboids with acarian sculptures.



Plate III. Looking west through gallery of north peristyle showing elaborately decorated roof. On left, south, is the wall of the cella, main body of the temple, and on the right, north, are the columns.

It measures 68 m long by 36 m wide, thus exceeding the dimensions of the Parthenon of Athens (AWAD, 1977-78: 50). The main portion of the temple or cella is about 21 m wide and 18 m long (WIEGAND, 1921: 1, Abb. 2). The peristyle is made up of 42 outer columns with 15 columns each on the north and south sides, Pl. II (WIEGAND, 1921, Tafel 5). The galleries enclosed on the north and south sides between the wall of the cella and colonnade are 3 m wide and 19 m high. The spacing between the columns is 2.5 m.

The slightly concave-shaped roof of the peristyle is built of big stone slabs lying end to end which can be up to 1.20 m thick, 3 m wide and 5.13 m long. Its entire visible lower surface is richly decorated with a network of hexagons, rhomboids, acute-angled and obtuse-angled triangles. Each of these delimited geometrical fields is surrounded by a 13 cm wide frame showing elaborately decorated floral patterns carved over a 2-3 cm deep background (Pls IV, V).

These geometrical designs occur in a fixed pattern throughout a series of adjacent, six-pointed stars formed by 3 cm deep and 4.5 cm wide carved bands (Fig. 1). The points of intersection of these bands (Pls IV-V) are marked by carved stone knobs of a diameter equal to the band width.

Four points of the six-pointed star motif touch the north and south sides of the ceiling, while the 2 other points are aligned along the axis of the ceiling. Hexagons are at the center of each star and, indeed, dominate the ceiling as a whole. Each hexagon is surrounded by four acute-angled-triangles and two obtuse-angled-triangles. The deeply sculptured (28 cm, WIEGAND, p. 68) subjects which fill each hexagon deal primarily with figures from the world of the gods and mythology and are mostly female.

Four radially-arranged rhomboids occupy the space formed around the points of each two six-pointed star motif. They are separated by two acute-angled triangles, medially, which are actually the points of the axially oriented six-pointed stars, and on either side by obtuse-angled triangles (Pl. IV).



Fig. 1.

The rhomboids, less deeply sculptured than the hexagons (20 cm, WIEGAND, p. 68), deal primarily with figures from the world of Dionysus: its related theater masks or with busts or heads without chests or shoulders. Some are filled with large leaves or perhaps petals surrounding a smooth oval-shaped center. At the acute angle of some rhomboids there can be shoots with flowers of Araceae (WIEGAND, p. 72).

The series of acute-angled and obtuse-angled triangles enclose similar, smaller triangles. Many of the smaller triangles have a triple-leaf design.

¹ After WIEGAND, p. 18, Abb. 32, "System der Pterondecke".

WIEGAND (p. 69) refers to the entire effect of this richly and ornately decorated ceiling as a "carpet translated into stone", resembling more a wood carving than a stone carving.

On the north side of the temple between columns 10 and 11 (counting from the entrance to the temple), the four rhomboids formed at the point of contact between stars 16 and 17 and between hexagons 16 and 17 contain 4 sculptures of Acarina (Pls II, II A). This series of rhomboids and the hexagons and triangles associated with it are pictured in Wiegand's work on Tafel 42 and labelled "Nordseite, 8, Feld von W".

While WIEGAND illustrates these rhomboids, the contents are nowhere discussed or described. He could not have been unaware of their very special character but no doubt his unfamiliarity with the subject may explain the absence of a comment.

The sculptures of the Acarina are each enclosed in a richly decorated 13 cm wide frame, as are all the geometric designs. The two frames enclosing the sculptures on the north side are more similar in design than the two frames directed towards the southern side. These two frames (N) contain a series of rosettes of four buds separated by an undulating surface. The two frames towards the wall of the cella (S) have more elaborated floral patterns (Pl. IV).

Plate IV, Figs. 1-3.

The details of the Acarina may never have been clearly depicted. However, quite evident in all four of the sculptures is the outline form typical for Acarina. For convenience of discussion, the sculptures have been labelled A to D.

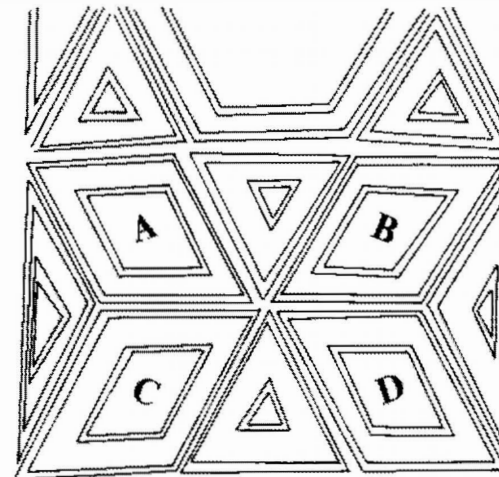




Plate IV. Fig. 1. Showing position of 4 rhomboids with acarian sculptures at intersection of 2 hexagons. (Photo: GORIOSSI-BOURDEAU). Fig. 2. Enlargement of 4 rhomboids with acarian sculptures, note details of frames surrounding sculptures. Fig. 3. Another view of acarian sculptures showing hexagon associated with the four rhomboids. (Photo: J.P. CONTZEN).

Sculpture "A" could represent either a tick or a mite (? Trombidioid). It shows five appendage-like structures on the left side of its swollen (?), ovoid body instead of the expected four. The anterior four of the five are directed towards and seem to be in contact with the left side of the frame of the rhomboid; the 5th, directed towards the base of the rhomboid frame, is thicker than the others and could be an artifact. It is difficult to ascertain whether the projecting structures on the right side and anteriorly represent legs or if the gnathosoma/rostrum (mouthparts) could be part of the carving.

The outline of the Acarina in sculpture "B" appears to have no appendage-like parts extending from the body, however, its anterior, projecting contour could well represent the gnathosoma or rostrum.

As opposed to sculptures A, B and D, the body of the Acarina depicted in sculpture "C" appears more massive. Appendage-like structures are evidently represented as well as what looks like a well defined gnathosoma or rostrum but these are difficult to interpret.

Sculpture "D" appears to be the most damaged of the 4 sculptures. Part of an ovoid body is visible.

The acarian sculptures are estimated to be approximately 24 cm long and 20 cm wide.

WIEGAND identifies one of the sculptured heads in the hexagon associated with these four rhomboids as possibly that of the Greek goddess Demeter, the protectress of agriculture and the fruits of the earth. He was led to this deduction for what he identified on either side of the sculptured head as the seed ears of wheat and the poppy plant.

It would seem that the decorators of the Temple put into effect all the resources of their imagination and included everyday subjects with which they were familiar and many, no doubt, of religious significance. Throughout the Temple, for instance, one finds the steer occupying a major place, notably, in its facade.

Acarina were evidently not unknown to these artists, whether Roman or local, and considered a beautiful enough object to be represented as testimony to their love of observation. A closer study could shed more light on their details; however, in the meantime, one can only conjecture why they became part of a peristyle ceiling of a Roman Temple dedicated to Bacchus, sharing space with the sculptured heads of divinities.

To better appreciate the extreme intricacies of the Baalbek sculptures, a photograph of a fallen block from the northern peristyle ceiling has been included (Pl. V). It shows a hexagon containing the sculpture of the bust of a female. Note the depth of the sculpture into the block of stone, the details of the frame surrounding it, the unsculptured rim around the frame, the knobs on the surface of the unsculptured rim, the design of the acute-triangular frames encircling the smaller triangles and the detail of a three-leaf design inside one of the smaller triangles. One cannot but be overwhelmed by the sheer beauty of the entire undertaking.



Plate V. View of fallen stone slab from portion of ceiling of peristyle (N.) lying in the gallery.

Discussion and review of literature

While this may be the first identifiable artistic representation of the group Acarina, ancient literature does not lack in references to them and their awareness of them.

ARTHUR in 1965 reported on what he proposed may be the oldest record and the oldest figure of ticks. His fig. 1 is a photograph of the "head of a 'hyaena-like' animal from tomb No. 155, Dra Abn el-Nago, Western Thebes, belonging to a certain Antef, 'great herald of the king', dating from the time of Hatshepsut-Thutmosis III, early eighteenth Dynasty and about 1500 BC". Shown within the ear are three "excrescences", represented as small circles. Arthur's reasons for considering these as possibly ticks are based "largely on their shape, which suggests a partially or fully fed condition, their size relative to the pinna of the host and their feeding location on its inner side."

ZAHER & HANNA (1982: 161) report the mention of acari in Egypt, sometimes referred to as insects in old literature, as early as 1550 BC, where a reference to 'tick fever' was recorded on an Egyptian papyrus scroll.

EMMANUEL (1982: 195) reports that Aristotle (384-322 BC) in his *Historia Animalium* (*Peri ta zoa historion*: 5. 32,2) first described in old wax and wood what he believed to be the smallest of animals which he called A-kari which in Greek means 'without head'. EMMANUEL explains that Aristotle did not include ticks under this term. For ticks he used the names Kroton and Kynoraistis. Aristotle in this same work (5.31,6) writes: "Krotones are found on agrostis (grass)" and continues, "Donkeys, however, have no phtheires or krotones. Cattle have both. Sheep and goats have krotones but no phtheires. On dogs there are kynoraistes." He (28, 23, 43-45) reports, as well on a probable mite ectoparasite of locusts, *Eutrombicula rostratum* (SCOPOLI): "They oviposit late in summer and when oviposition is completed they die because at that time scolekes (worms) are found around their neck." Scabies was also known as a disease and Aristotle had also noticed the mites associated with it, he called them phtheires. The Greek word for scabies was and still is "psora" and references to it can be found in the writings of several ancient authors, among them, Horodotos, Plato, Hippocrates, Plutarch and Theophrastos (EMMANUEL, p. 197).

OUDEMANS (1926: 49) in his review of literature from 850 BC cites from Homer's Iliad, book 21, 394-395: Ares, speaking to Athena, calling her 'dogfly'; from book 21, 420-421 from the same epic poem: Hera, speaking to Athena about Aphrodite, calling her a dogfly. In both cases 'dogfly' was used as an insult'. EMMANUEL (p. 197), states that dogfly (Kynoraistes) does imply the tick and it is used to indicate the persistence of a person. Again from Homer in the Odyssey XVII, 300: "At the return of Ulysses, there was Argus, the dog, full of dogflies". OUDEMANS believed that the species of ticks involved was *Ixodes ricinus* (L.) but EMMANUEL (p. 197)

says that this cannot be verified and that dogs in Greece nowadays are mostly infested by species of *Rhipicephalus* and *Hyaloma* and very rarely by *Ixodes ricinus* (L.).

OUDEMANS reports that Aristotle in his *Artis Rhetoricæ*, book 2, c. 20, refers to Aesopus relating the story of a fox trapped in a crevice which was full of ticks and replied to a hedgehog which wanted to help it by removing the ticks: "don't because they are full of my blood and if you remove them, others will come and take the rest of my blood", noting that this is the first known statement about blood sucking and also of the fact that parasites attack more successfully weakened animals. OUDEMANS also reports that Aristotle talks about pig lice, which, he suggests, must have been the tick *Hyalomma aegyptus* L., 1758.

OUDEMANS (p. 52) says that Cato the Elder, Marcus Porcius Cato (234-149 BC) in his *De Agricultura or De Re Rustica*, c. 96, mentions that healthy and well kept sheep do not get ticks; that Marcus Terentius Varro (116-27 BC) in his treatise on agriculture, *De Re Rustica* L. 2. *De re pecuaria*, c. 9. sect. 14, uses the term "musca" (fly) for flat ticks and "ricinus" for the blood-filled females; that Columella, in his treatise on agriculture, *De Re Rustica*, Lib. 6. c. 2. sect. 6, writes about sprinkling unmixed wine on the belly of cows, which may drive the ticks away; that Pliny or Gaius Plinius (about 23-79 A.D.) in his great encyclopedia of nature and art, *Historia Naturalis*, book XXXVII, lib. 11. c. 33, writes about an animal as ugly as the louse which sucks blood with its head inserted and attacks the ears of dogs who cannot defend themselves. He writes that he did not know the name of the animal but OUDEMANS says it is no doubt a tick; again Pliny, book 22, c. 18, says they kill the dog ticks with the sap of *Ixia* (*Matricaria chamomilla*).

Chen SHING-BAO *et al.*, 1982: 79, report that the first account of ticks in China can be found in Xu Shen's "Shuo Wen Jie Zi" (Analytical dictionary of characters) in the later Han Dynasty (247-195 BC) where it is stated that "Ticks are parasites which infest cattle." While they give no details, they say that ancient scientific works on acari in relation to diseases in China are found in Ge Hong's "Zhou Hou Bei Ji Fan (313 A.D.)" and "Bao Pu Zhi (317 A.D.)".

From the above brief review, even a non-specialist cannot but be impressed with the awareness and observations made on Acarina in ancient times. No great magnification is needed to see organisms measuring up to several millimeters and some Acarina, especially ticks, fall within this category. This probably explains why one finds them so frequently mentioned in ancient literature. It would not be too surprising to discover still other likeness to Acarina in yet unexplored sites.

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