

## THE GOLDEN NIKAI RECONSIDERED

In the Parthenon as reconstituted by scholars, our eyes have been so dazzled by the colossal gold and ivory statue that we have scarcely noticed her handmaidens, the golden victories of Athena. Our attention has been drawn to them again by the thorough study of all the relevant inscriptions by Mr. Woodward.<sup>1</sup> These inscriptions together with a few scattered literary references considered in connection with a bronze head recently discovered in the Agora<sup>2</sup> provide sufficient material to tempt one to reconstruct the Nikai.

The Parthenos and these Nikai alike were the expression of the prudence of Perikles, who believed in fortifying the state by great reserve funds rather than by mortgages on future earnings: αἱ δὲ περιουσίαι, he sagaciously observed, τοὺς πολέμους μᾶλλον ἢ αἱ βίαιοι ἐσφοραὶ ἀνέχουσιν (Thucydides, I, 141, 5). These financial reserves were translated into a spiritual investment by dedicating them to the Goddess. Thus the Athenians could lay up their treasures in heaven while still keeping their hands on them. But when they were obliged to convert these golden statues into money, they were careful not to say κατακόψωμεν τὰς Νίκας εἰς τὸν πόλεμον but συγχρησόμεθα ταῖς Νίκαις εἰς τὸν πόλεμον.<sup>3</sup> Piety and prudence could both be satisfied by turning useless bullion into works of art. Furthermore, there was undoubtedly serious pressure to keep in employment the skilled craftsmen who had been released from occupation when the Parthenos was dedicated in 438 B.C. Perikles, be it remembered, kept his eye on labor conditions, "it being his desire and design that the undisciplined mechanic multitude that stayed at home should not go without their share of the public salaries and yet should not have them given them for sitting still and doing nothing,

<sup>1</sup> "The Golden Nikai of Athena," *Ἀρχ. Ἐφ.*, 1937, pp. 159 ff.; "Two Attic Treasure Records," *Athenian Studies Presented to W. S. Ferguson, Harvard Studies in Classical Philology*, Supplement I (Cambridge, 1940), pp. 377 ff. Older literature: P. Foucart, "Les Victoires en or de l'acropole," *B.C.H.*, XI, 1888, pp. 283 ff.; W. S. Ferguson, *The Treasurers of Athena* (Cambridge, 1932).

This study has been a co-operative affair. Undertaken as a brief note for Eugene Schweigert's publication of the Agora fragments of Nikai records, it was fostered by the generous interest of many friends, to whom I owe more than I can formally acknowledge. Especial thanks must be rendered, however, to Arthur Parsons, who joined in the preliminary skirmish, to Kendrick Pritchett, who patiently advised on matters epigraphical, to Mary Zelia Pease who as patiently acted as 'model' for the figures, to J. H. Classey who made an invaluable copy of Professor Woodward's article, and above all, to my husband, who not only advised, suggested, and criticized, but actually abetted in the overthrow of his own theories, and then urged me to publish. Figs. 4, 8, 11 are from photographs especially taken by Alison Frantz.

<sup>2</sup> H. A. Thompson, "A Golden Nike from the Athenian Agora," *H.S.C.P.*, Supplement I, pp. 183 ff.

<sup>3</sup> Demetrius, *De elocutione*, 281.

to that end he thought fit to bring in among them with the approbation of the people, the vast projects of buildings and designs of work that would be kept of some continuance before they were finished and would give employment to numerous arts." (Plutarch, *Pericles*, 159b, translation by Clough.)

It is probably more than a coincidence, therefore, that the first extant mention of the golden Nikai occurs in a decree of 434 B.C. that orders ἐκποεῖν τὰ ἐναίεττα τὰ λί[θηνα καὶ τὰς Νί[κας τὰς χ]ρυσᾶς.<sup>4</sup> Their subsequent history can be traced in various inscriptions down to the middle of the fourth century B.C. and by literary references into the third. But the tradition of making large golden statues was much older. The ancient East as well as Egypt produced numerous statues in precious metals (*infra*, p. 180). The taste for ostentatious sculpture came to Greece in the Orientalizing period, and Kypselos, imitating the potentates, dedicated a golden Zeus.<sup>5</sup> Chance excavation recently at Delphi has revealed fragments of gold and ivory statues of this period, to make real to our incredulous eyes the fairy-stories of tradition.<sup>6</sup> Among the most important of the traditional dedications at Delphi was that after Himera, made by Hiero and his brothers,—a golden Nike within a tripod of the same metal; the entire offering weighed 16 talents. And once more to the incredulous, corroboration has been offered by the discovery of the base of this very offering.<sup>7</sup> The other golden statues of which we read in literature and inscriptions still remain vague,<sup>8</sup> but the records of the golden Nikai of Athena are unique in being the only surviving descriptions of ancient statues written by contemporaries of their sculptors.

The Nikai which are to be discussed in this paper, and the evidence attesting them, may for convenience be introduced here in tabular form.

## LIST OF NIKAI

Letter	Reference	Date B.C.	Description	Identification
A, B, C (At least)	A.T.L., D2, lines 2-3 (= I.G., I <sup>2</sup> , 92; Woodward, No. 1)	434/3	Nikai in plural	
D	<i>Hesperia</i> , IX, 1940, p. 309, No. 27, lines 1-4	ca. 430-425	Nike weighing two talents	Might equal A, B
E	<i>Hesperia</i> , IX, 1940, p. 309, No. 27, lines 4-10	ca. 430-425	Nike by Deinokrates, weighed from feet upward	Might equal B, C

<sup>4</sup> I.G., I<sup>2</sup>, 92; Meritt, Wade-Gery, and McGregor, *The Athenian Tribute Lists* (Cambridge, 1939), D2 (p. 161 and pp. 208-209).

<sup>5</sup> Pausanias, V, 2, 3.

<sup>6</sup> P. Amandry, "Les statues chryselephantines de Delphes," *B.C.H.*, LIII, 1939, pp. 86 ff.

<sup>7</sup> Athenaeus, VI, p. 231c; F. Poulsen, *Delphi*, p. 219.

<sup>8</sup> Pausanias, X, 24, 5, etc. For the history of golden statues in later times, see K. Scott, "The Significance of Statues in Precious Metals in Emperor Worship," *Trans. and Proc. Am. Phil. Assoc.*, LXII, 1931, pp. 101 ff.

<i>Letter</i>	<i>Reference</i>	<i>Date B.C.</i>	<i>Description</i>	<i>Identification</i>
<i>F, G</i>	<i>I.G.</i> , I <sup>2</sup> , 368, lines 1-28 (= Woodward, No. 2)	426/5	Nikai in dual, just dedicated. Legs of <i>F</i> weighed separately	Not equal the above because just dedicated
<i>H</i>	Woodward, No. 3, line 1 (= <i>I.G.</i> , I <sup>2</sup> , 369)	ca. 410	One item --- $\epsilon\rho\iota$ --- precedes other Nikai	Might equal <i>A</i> , <i>B</i> , <i>F</i> , or <i>G</i>
<i>I</i>	Woodward, No. 3, lines 2-6 (= <i>I.G.</i> , I <sup>2</sup> , 369)	ca. 410	Total weight 1 tal., 5987 dr., grouped peculiarly	Rekurs in Woodward, No. 4, lines 5-10 (= <i>I.G.</i> , II <sup>2</sup> , 1502). Might equal <i>A</i> , <i>B</i> , <i>C</i> , <i>E</i> , <i>F</i> , or <i>G</i>
<i>J</i>	Woodward, No. 3, lines 9-13 (= <i>I.G.</i> , I <sup>2</sup> , 369)	ca. 410	Nike by --- atides. Total weight 1 tal., 5962 dr., 3 ob.	Rekurs in Woodward, No. 5, lines 13 ff. (= <i>I.G.</i> , II <sup>2</sup> , 1370 + 1371 + 1384) <i>Hesperia</i> , IX, 1940, pp. 310 f., No. 28 + <i>I.G.</i> , II <sup>2</sup> , 1386 + 1381 (lines 2 ff. of <i>Hesperia</i> , IX, No. 28) <i>I.G.</i> , II <sup>2</sup> , 1388, lines 16-24 (= Woodward, No. 6) <i>I.G.</i> , II <sup>2</sup> , 1393, lines 6-11 (+ <i>I.G.</i> , II <sup>2</sup> , 1406 + 1448 + 1449 = Woodward, No. 7) <i>I.G.</i> , II <sup>2</sup> , 1400, lines 8-12 (= Woodward, No. 9) <i>I.G.</i> , II <sup>2</sup> , 1407, lines 8-11 (= Woodward, No. 10) <i>I.G.</i> , II <sup>2</sup> , 1424a ( <i>Addenda</i> ), lines 5-21, (= Woodward, No. 12) <i>I.G.</i> , II <sup>2</sup> , 1425, lines 1-16 (= Woodward, No. 13) <i>I.G.</i> , II <sup>2</sup> , 1428 ( <i>Addenda</i> ), lines 26-41 (= Woodward, No. 14) <i>I.G.</i> , II <sup>2</sup> , 1431, lines 1-4 (= Woodward, No. 15) Woodward, No. 16 (= <i>I.G.</i> , II <sup>2</sup> , 1440, lines 40-45) Might equal <i>C</i>
<i>K</i>	Woodward, No. 3, lines 13-17 (= <i>I.G.</i> , I <sup>2</sup> , 369)	ca. 410	Nike by Timodemos. Arms and feet weighed separately	Might equal <i>D</i> or <i>F</i>
<i>L</i>	Woodward, No. 4, lines 2-5 (= <i>I.G.</i> , II <sup>2</sup> , 1502)	ca. 407/6	Nike weighs over two talents	Might equal <i>A</i> , <i>B</i> , <i>C</i> , or <i>H</i>

Letter	Reference	Date B.C.	Description	Identification
M	<i>I.G.</i> , II <sup>2</sup> , 1421 (line 12) + 1423 + 1424 (lines 31-34) + 1689 (= Woodward, Nos. 11 and 17)	374/3	Nike dedicated by Board of Kallistratos	Not equal to any of above. Recurs on: <i>I.G.</i> , II <sup>2</sup> , 1424a ( <i>Addenda</i> ), lines 50-62 (= Woodward, No. 12; cf. No. 17) <i>I.G.</i> , II <sup>2</sup> , 1425, lines 45-62 (= Woodward, No. 13) <i>I.G.</i> , II <sup>2</sup> , 1428 ( <i>Addenda</i> ), lines 9-24 (= Woodward, No. 14) <i>I.G.</i> , II <sup>2</sup> , 1431, lines 5 ff. (= Woodward, No. 15)

Presumably the golden Nikai of Athena celebrated the Athenian victories of the fifth century. The first extant reference to them, as noted above, dates from 434 B.C., after the victory of the Athenian navy over recalcitrant Samos in 439 B.C.<sup>9</sup> These examples probably embodied the goddess' share of the 1400 talent tribute exacted in that triumph. The two Nikai dedicated in 426/5 B.C. cannot, on account of the date of the decree, be associated with the taking of Sphakteria; besides, the chief dedication for that event was a great bronze Nike set up on the Acropolis.<sup>10</sup> Rather the golden figures should be related to the two brilliant naval victories of Phormio in the Corinthian gulf in 429 B.C.<sup>11</sup> Just when the other Nikai listed in the late fifth century were dedicated cannot be guessed. But in view of the common practice of dedicating Nikai for sea victories, it seems safe to associate the others with the naval



Fig. 1. Gold Coins of 407/6 B.C. (Enlarged)

(Seltman, *Greek Coins*, pl. XXVII, 8-9)

successes of which Athenian history offers a rich choice.

Of these fifth-century Nikai all but one were melted down in the desperate crisis of 407/6 B.C. to make coins of which a few are still extant (Fig. 1).<sup>12</sup> In 374/3 B.C.

<sup>9</sup> *Cambridge Ancient History*, V, pp. 169 ff.; Thucydides, I, 116. Seltman offers no specific evidence for his suggestion, *Greek Coins*, p. 204, that they were dedicated to celebrate Salamis.

<sup>10</sup> Pausanias, IV, 36, 6.

<sup>11</sup> *Camb. Anc. Hist.*, V, pp. 208 ff.

<sup>12</sup> C. Seltman, *Greek Coins*, pl. XXVII, 8-9.



Fig. 2. Gold Coin of Alexander (Enlarged)  
(*Zeitsch. f. Numis.*, 1922)

a new Nike was dedicated, probably to celebrate the triumphs of Chabrias at Naxos and of Timotheos in the Peloponnesos in 376/5 B.C.<sup>13</sup> Both these victors also dedicated crowns on the Acropolis to celebrate their successes.<sup>14</sup> Whether the Nike of 374/3 B.C. was entirely new or merely a restoration of an old one cannot be certain. But in view of the restricted resources of Athens at that time, it seems probable that

the commissioner Androtion re-created her from the melting-down of many crowns and offerings in the Parthenon, to the indignation of his critics, *φήσας δ' ἀπορρεῖν τὰ φύλλα τῶν στεφάνων καὶ σαπροὺς εἶναι διὰ τὸν χρόνον, ὥσπερ ἴων ἢ ρόδων ὄντας, ἀλλ' οὐ χρυσίου, συγχωνεύειν ἐπεισεν*.<sup>15</sup>

On the Panathenaic amphorae of 336 B.C. (Fig. 14) and on the gold coins of Alexander issued in that year (Fig. 2), Nikai are shown, holding one or two naval emblems. The suggestion that it was Alexander, who, in a spirit of generosity and archaeological zeal, gave the ancient city new statues of Victory just as he was about to rob her of all power to conquer, seems highly plausible.<sup>16</sup> Lykourgos, then, in 334-330 B.C. was merely vying with Alexander when he reconstructed the Nikai, . . .  *χρήματα πολλὰ συνήγαγεν εἰς τὴν ἀκρόπολιν, καὶ παρασκευάσας τῇ θεῇ κόσμον, νίκας τε ὀλοχρύσους*. . . .<sup>17</sup> It was a brief revival; in the opening years of the third century, the Victories, along with their goddess, were stripped of their wealth by the tyrant Lachares to pay his mercenaries.<sup>18</sup> Once again we can savor the dubious pleasure of handling the original metal, which still exists in the dull coins struck in those bitter days (Fig. 3).



Fig. 3. Gold Coin of Lachares  
(Enlarged)

(*Greek Coins*, pl. LXII, 12)

<sup>13</sup> *Camb. Anc. Hist.*, VI, pp. 74 f.

<sup>14</sup> Demosthenes, *Timokrates*, 756 (Chabrias); *I.G.*, II<sup>2</sup>, *Addenda* 1424a, line 368 (376/5 B.C., Timotheos).

<sup>15</sup> Demosthenes, *Timok.*, 755. The suggestion that the gold obtained by melting down the crowns went into the Nike of 374/3 was made by Ferguson, *Treasurers*, pp. 18-19, note 1.

<sup>16</sup> Thompson, *H.S.C.P.*, Supplement I, pp. 206 f.

<sup>17</sup> Plutarch, *X orat. vii.*, 852 B; cf. Pausanias, I, 29, 16; Ferguson, *Treasurers*, pp. 122 f.

<sup>18</sup> *Class. Phil.*, XXIV, 1929, pp. 1 ff.; *Papyr. Oxyr.*, XVII, 2082; cf. Seltman, *Greek Coins*, pl. LXII, 12, p. 258; Ferguson, *Treasurers*, p. 126.

## CONSTRUCTION

The amount of gold assigned to the construction of a Nike evidently was intended to be two talents. Seltman points out that "ancient silversmiths and goldsmiths, like modern oriental jewellers, generally made their wares on current standards employed for the precious metals."<sup>19</sup> The treasure-lists reveal clearly that common objects like silver phialai or hydriai approximate round numbers, such as 10 or 100 minas.<sup>20</sup> They usually fall just short of the figure. The Nikai likewise approximate two talents. Only one reached the exact amount (*Hesperia*, IX, 1940, p. 309, No. 37); another exceeded the figure by more than 200 drachmai (*I.G.*, II<sup>2</sup>, 1502).<sup>21</sup> The others fall short of two talents.

Two talents of gold is even to us a considerable amount, approximately 120 lbs.<sup>22</sup> At the present rate of \$35.00 an ounce, the bullion for one Nike alone would bring to-day \$67,200.00. If the difference in purchasing power between the late fifth century before Christ and the mid-twentieth century after Christ be set conservatively at one to ten, the value of the gold would be more than a quarter of a million dollars. The careful detail of the treasurers' lists show how seriously the value was regarded. But, for all their precautions, we shall see that even in the Parthenon theft was possible.

How was this gold converted into a statue? One point is certain; no Greek statue of precious metal was ever cast solid. Such an extravagant method would have been out of keeping with Greek usage and totally unnecessary, for gold is the "most malleable of all the metals. It is also extremely ductile; a single grain [1/11 of an obol] may be drawn into a wire 500 ft. in length."<sup>23</sup> A plate as thin as writing-paper can be handled easily without denting. The common ancient practice was to press very thin sheets of gold over a modelled core of sturdier material, such as wood, silver, or bronze. The base had to be fully modelled, even smoothed and engraved, before receiving the gold. The Bronze Head recently found in the Agora is the best extant example of such a core, retaining as it does parts of the gold and silver plating in the grooves whereby it was attached so that it could be removed and weighed at intervals (Fig. 4).<sup>24</sup>

To those who object to calling a gold-plated statue a "gold statue," a full study of the relevant terms in the treasure-lists is urgently recommended. If there really was a technical distinction in the minds of the recorders, it is certainly not apparent

<sup>19</sup> *Greek Coins*, pp. 72 f.

<sup>20</sup> E. g., *I.G.*, I<sup>2</sup>, 248 ff.

<sup>21</sup> Cf. Woodward, *Ἀρχ. Ἐφ.*, 1937, p. 163.

<sup>22</sup> A goldleaf firm in Philadelphia told me before the war that they would not be able to fill an order for 120 lbs. of gold in the city, but would have to send to Washington.

<sup>23</sup> *Encyc. Brit.*, eleventh edition, XII, p. 193.

<sup>24</sup> Thompson, *H.S.C.P.*, Suppl. I, pp. 191 ff.

in the available evidence.<sup>25</sup> Take, for example, the variety in the descriptions of a common object,

[κανὸν χρυσὸν ὑπόχαλκον]	<i>I.G.</i> , II <sup>2</sup> , 1392, line 19
κα[νὸν χρυσὸν ὑπόξυλον]	<i>I.G.</i> , II <sup>2</sup> , 1396, lines 2-3
κανοῦν ὑπόχαλκον ἐπίχρυσον	<i>I.G.</i> , II <sup>2</sup> , 1436, line 49
[κανὸν κατὰχρυσον]ν ὑπόχαλ[κον]	<i>I.G.</i> , II <sup>2</sup> , 1421, line 38.

It seems unlikely that these variations all reflect slightly different techniques. But what shows the identity of the terms in the case of one and the same object occurs



Fig. 4. Bronze Head from Agora

she was not made either of solid ivory or of solid gold. The emphasis on *όλο-* in Plutarch's phrase can be most plausibly explained by looking at the head from the

with the *θυμιατήριον* of Kleostrates. [*θυμιατήριον ἀρ[γυ]ρὸν . . . χαλκᾷ δι[ερείσματα ἔχον*] later appears as a *θυμιατήριον ὑπόχαλκον ἐπάργυρον*.<sup>26</sup> One might argue that parts of the solid silver censer had been replaced by plated bronze, were it not that bronze is lighter than silver and should have reduced the total weight, which actually has increased by 20 dr. One must suppose that the description rather than the object varied. Nor have we students of Greek any right to exact accuracy in the strictly modern sense of any fifth-century Greek word describing a technique.

Nor can we be too fastidious in translating *όλόχρυσος*. To our minds the obvious translation would be "solid gold." But the Greeks did not make life-sized statues of solid gold, just as they did not make large statues of solid bronze. Yet we are quite willing to refer to hollow bronze figures as "bronze statues." We call the Parthenos "a statue of ivory and gold," though we know well from her height and weight that

<sup>25</sup> Boeckh, *Staatshaushaltung der Athener*, II<sup>3</sup> (1886), p. 148; Michaelis, *Der Parthenon*, p. 313. Cf. Furtwängler, *Olympia*, IV, p. 16, who distinguishes two types (1) gold applied in thin plates, loosely attached (the older), and (2) gold firmly attached, apparently by fire. There is, however, no way of telling how the styles were designated in ancient terminology. Cf. Thompson, *loc. cit.*, p. 201.

<sup>26</sup> *I.G.*, II<sup>2</sup>, 1382, lines 3 ff., etc.; cf. II<sup>2</sup>, 1436, line 9.

Agora. On her we see that the latest covering at least was composed of a gold sheet over silver—an economy that Lykourgos evidently spurned. Again the term *δλόχρυσος* may have been opposed to *χρυσελεφάντινος*. The envelope was, then, of pure gold and only of gold. What was the composition of the core (if there was a core) made no more difference to the description than the masts and struts which have been described within chryselephantine statues.<sup>27</sup>

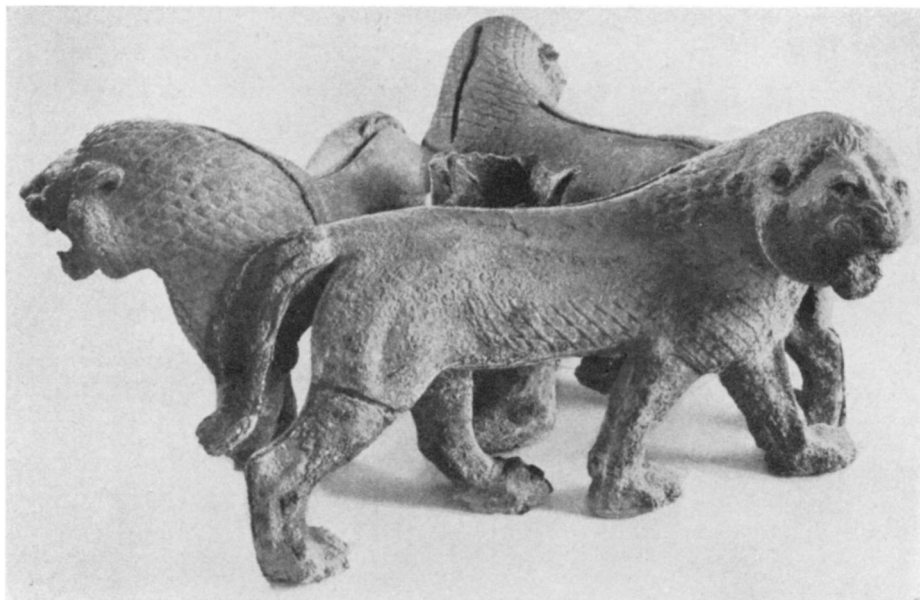


Fig. 5. Lion Pedestal from Persepolis

(Schmidt, *Treasury*, fig. 45)

The most economical thickness for a sheet of gold would not exceed one millimetre. It was applied to the surface of the bronze core by bending the ends of the sheets over into long grooves and keying them into place by a bit of gold.<sup>28</sup> This technique appears also to have been used in Persian gold plating on bronze (Fig. 5).<sup>29</sup> The grooves on the Bronze Head from the Agora would permit of a plate about 0.08 cm. thick (Fig. 4). Professor Dinsmoor has calculated for the Parthenos a plating of 0.077 cm. One talent of gold beaten into a sheet 0.08 cm. thick would cover an area of 1.68 sq. m. A Nike weighing approximately two talents, if overlaid with

<sup>27</sup> Lucian, *Gallus*, 24: . . . ἦν δὲ ὑποκύψας ἰδῆς τὰ γ' ἔνδον, ὅψει μοχλοὺς τινὰς καὶ γόμφους καὶ ἡλούς διαμπὰξ διαπεπερονημένους καὶ κορμούς καὶ σφήνας καὶ πίτταν καὶ πηλὸν καὶ πολλήν τινα τοιαύτην ἀμορφίαν ὑποικονοῦσαν. . . .

<sup>28</sup> *H.S.C.P.*, Suppl. I, pp. 193 f.

<sup>29</sup> E. Schmidt, *Treasury of Persepolis*, p. 650, fig. 45. The lion pedestal was treated with grooves in much the same manner as the Agora Head, no doubt for the application of precious metal.



gold of that thickness, would have to provide an area of *ca.* 3.36 sq. m. We have various ways of checking this calculation. In the first place, we might consider the area of the Bronze Head from the Agora. If we take the head as a cylinder, we can gauge the surface roughly as 327 sq. cm. and the amount of gold required only 118 dr.<sup>30</sup> This is barely one hundredth of the total gold in a Nike of Athena. We must suppose, then, that the Nikai of the inscriptions were considerably larger than the Nike of the Agora.<sup>31</sup>

Since a three-foot statue could not have required the necessary amount of gold, we must consider another height that was popular for statues—four cubits, or six feet. This was the height of the Nike that stood on the hand of the Parthenos. The area of the skin of a human woman six English feet tall is *ca.* 1.93 sq. m.<sup>32</sup> A draped figure, wearing jewellery and carrying accessories, would certainly require considerably more. The difference between our calculation, 3.36 sq. m., and the human 1.93 sq. m. seems none too much for the necessary appurtenances.

A more detailed check can be made on the single items which are listed on the inscriptions with their weights. Not only should the figures tally for the totals, but they should check within the group and from group to group among the Nikai, since they all weighed approximately the same. We can also refer certain items, like jewellery, to known gold equivalents in museums.<sup>33</sup>

Our calculations are complicated by the fact that save for one fragmentary example the inscriptions do not list the weights of single objects, like a leg or an arm, separately, but they enter a number in groups, called *ῥυμοί*; for example, the head with all its jewellery. Only by comparison and cross-reference can we deduce the weight of any single item. Luckily two inscriptions are so well preserved that we can fully compare all the weights. For convenience in reference these two inscriptions are given in tabular form below.

<sup>30</sup> The calculation runs as follows: area of head surface =  $2\pi rh$  ( $h = 15.3$  cm.,  $r = 3.4$  cm.)  $\times .08$  cm. (thickness of gold)  $\times 19.4$  (specific gravity of gold) divided by 4.31 gr. per drachma.

<sup>31</sup> The Agora figure might well have been a smaller version of the great Nikai of the Acropolis, dedicated in the temple of Hephaistos, just above where the Bronze Head was found. The likelihood that the body was composed of much more massive gold than the head, as was suggested, *H.S.C.P.*, Suppl. I, p. 203, seems less probable on the new evidence from Delphi. It would make the three-foot figure almost solid, which would be totally against ancient practice. The possibility that the figure was one of the golden akroteria of the temple of Athena Nike, which once lost a piece of gold plate, remains another possible identification. Cf. *loc. cit.*, p. 199.

<sup>32</sup> Starling, *Principles of Human Physiology* (1933), p. 520, fig. 280.

<sup>33</sup> Jewellery parallels in the *British Museum Catalogue of Jewellery*, *στεφάνη*, No. 1607; *ἐνωιδίω*, Nos. 1653-4; *ὄρμος*, No. 1947; *ἰποδερίς*, No. 1966; *ἀμφιδέαι*, Nos. 1989-90. Their total weight in grains Troy is 3392 = *ca.* 52 dr.



στεφάνη	-----	στεφάνη
ἐνωιδία	-----	ἐνώidia
ὄρμος	-----	ὄρμος
ὑποδερίς	-----	ὑποδερίς
ἦλω		
χρυσίδα		
χέρ ἀριστερά	}	χείρες ἀμφότεραι
ἀμφιδέα		ἀμφιδέαι δύο
ῥυμός 4		
χέρ δεξιά		
ἀμφιδέα		
στέφανος		στέφανος
κατωρίδε		

Total: 4012 dr. 3 obols

Total: 3077 dr. 4 obols.

Result: κατωρίδε + χρυσίδα + ἦλω = 934 dr. 5 obols.

And

ῥυμός 2		ῥυμός 2
θώραξ	-----	θώραξ
στρόφιον	-----	ζώνιον
		περόνα
		χρυσίον ὀπίσθιον

Total: 2010 dr.

Total: 3391 dr. 3 obols

Result: χρυσίον ὀπίσθιον + περόνα = 1381 dr. 3 obols.

Let us check, by way of test, the weight, *ca.* 930 dr., obtained above for the κατωρίδε by inserting it in the third ῥυμός of Kallistratos' Nike.

$$\sigma\kappa\acute{\epsilon}\lambda\eta + \kappa\alpha\tau\omega\rho\acute{\iota}\delta\epsilon = 3288 \text{ dr.}$$

$$\sigma\kappa\acute{\epsilon}\lambda\eta = 2358 \text{ dr.}$$

The only inscription that records the weight of separate legs (Nike *F*, *I.G.*, I<sup>2</sup>, 368, lines 22 ff.) gives, on sufficiently plausible restorations, 1384 dr. for each. The legs of a six-foot woman, measured from the hips, would require a covering of 2545 dr., which is not too far from the above results. Following the same procedure, we can substitute the known weights in other ῥυμοί and gradually work out, within very narrow limits, many of the other items. It is significant that calculations for the parts of the human body in each case fall close to the weights given in the inscrip-

tions—a fact that indicates that the height of the figures has been correctly estimated as approximately six feet.<sup>35</sup> The results may be summarized in the following table.

<sup>35</sup> As can be tested by calculating the figures for different heights, difference in area varies considerably with each foot, so that even a margin of error of one hundred drachmai is small. No other height is possible, assuming that the thickness of the gold is correct.

Sections of the human body have been considered, for simplification, as cylinders. The formula may be worked out on the following data:

- 1) Circumference (or  $\pi \times \text{diam.}$ )  $\times$  height = area in centimeters,
- 2) Thickness of gold plate = .08 centimeters,
- 3) Specific gravity of gold = 19.4 grams per c. c.,
- 4) Grams of gold per drachma = 4.31.

Therefore the drachmai of gold required to cover any area of the human body with a plating of .08 cm. thick can roughly be expressed by the following formula:

Circumference ( $2\pi r$ )  $\times$  height  $\times$  .08  $\times$  19.4  $\div$  4.31. The formula is used, for example, for the area of the head thus:

$\pi \times$  (average diameter of head = 17.8 cm.)  $\times$  (ht. of head = 30.5 cm.) = area.  $22/7 \times 17.8 \times 30.5 = 1706.26$  sq. cm.  $1706.26 \times .08 = 136.5$  cub. cm.  $136.5 \times 19.4 = 2648.12$  gr. of gold.  $2648.12 \div 4.31 = 614.41$  drachmai of gold.

This must necessarily represent the *minimum* amount without due allowance for the intricate convolutions of the hair, particularly if the coiffure is the "lampadion" which appears on the Agora Head.

We may now tabulate the relevant human measurements:

Head, diam. ....	av. 7" (17.78 cm.)	
height .....	av. 12" (30.5 cm.)	
Chest, circum.....	37" (93.9 cm.)	} average, 83 cm.
Waist, circum.....	29" (73.6 cm.)	
Shoulder to hip .....	21" (53.3 cm.)	
Diam. of arm.....	4" (10.1 cm.)	
Length of arm.....	30" (76.2 cm.)	
Length of leg.....	45" (114.3 cm.)	
Circumference of both legs at knee...	22" (55.8 cm.)	
Circumference of hips.....	38" (96.5 cm.)	
Circumference of foot.....	10" (25.4 cm.)	
Length of foot.....	10" (25.4 cm.)	
Length of hand.....	8" (20.32 cm.)	
Circumference of hand.....	8" (20.32 cm.)	

The formula may be expressed as follows:

Arm: .....	$22/7 \times 10 \times 76 \times .08 \times 19.4 \div 4.31 =$	835.67
Hand: .....	$20 \times 20 \times .08 \times 19.4 \div 4.31 =$	144.08
		979.75
Hand and arm.....		979.75
Thorax: .....	$83 \times 53.3 \times .08 \times 19.4 \div 4.31 =$	1593.84
Legs: .....	$62 \times 114 \times .08 \times 19.4 \div 4.31 =$	2545.14
Foot: .....	$25.4 \times 25.4 \times .08 \times 19.4 \div 4.31 =$	246.55

Since all these sums represent the amount of gold required to cover a naked figure, they must be considerably lower than those recorded that (with the possible exception of the arms) involve draped areas.

## WEIGHTS OF NIKAI J AND M (IN DRACHMAI)

(allowing .08 cm. of gold plating)

<i>Estimate to cover human woman six feet high.</i>	---atides' Nike (J)		Kallistratos' Nike (M)	
		<i>Estimate</i>		<i>Estimate</i>
800	Head	1000	Head	900
	Jewellery	53	Wreath	100
980	Hand & Arm	980	Jewellery	55
	Bits of gold	10	Hands & Arms	1960
	<hr/>	<hr/>	<hr/>	<hr/>
	2044 dr. 3 ob.	2043 dr.	3077 dr. 4 ob.	3015 dr.
1600	Θώραξ	2000	Θώραξ	2000
	Στρόφιον	10	Ζώνιον	10
	<hr/>	<hr/>		
	2010 dr.	2010 dr.		
			Pins	2
			Χρυσίον Ὀπίσθιον	1380
			<hr/>	<hr/>
			3391 dr. 3 ob.	3392 dr.
	Ἀπόπτυγμα	1450	Legs	2400
	Pins	2	Κατωρίδε	930
			<hr/>	<hr/>
			3288 dr.	3330 dr.
500	Feet	500		
	<hr/>	<hr/>		
	1939 dr. 3 ob.	1952 dr.	Ἀπόπτυγμα	1650
980	Hand & Arm	980	Feet	500
	Bracelet	2	Pins	2
			<hr/>	<hr/>
			2141 dr. 3 ob.	2152 dr.
	Wreath	70		
1450	Κατωρίδε	900		
	<hr/>	<hr/>	Total: 1 tal. 5898 dr. 4 ob.	
	1968 dr.	1952 dr.	Estimate: 1 tal. 5889 dr.	
	Ἀκρωτήριον	260		
	Χρυσίον Ὀπίσθιον	1350		
2550	Legs	2400		
	<hr/>	<hr/>		
	4002 dr. 3 ob.	4010 dr.		
	Total: 1 tal. 5964 dr. 3 ob.			
	Estimate: 1 tal. 5967 dr.			

Now that we have some idea of the weights of the different parts, we might consider the significance of their grouping. Evidently an attempt was made to keep the weights in each *ρῦμός* similar to or a multiple of the unit. Was this for convenience in construction or in weighing? The order of the items indicates that the statues were taken apart bit by bit, beginning in most cases with the head, though two examples

are listed from the feet upward (Nikai *I* and *G*). Presumably, as in a modern bronze statue, the balancing of the heavy mass of metal had seriously to be considered.

In this connection the word *ῥυμός*, which appears in the fourth-century inscriptions as a term for each group, should be examined. The phrase runs: *Νίκη χρυσῇ σταθμὸν ἄγει καθ' ἕκαστον, πρῶτος ῥυμός* (Woodward, No. 16). The word appears also elsewhere in the treasure-lists to indicate a similar group, as of phialai.<sup>36</sup> Derived from the verb to "drag," *ἐρύω*, it is used in connection with a plough or chariot as a pole, or as a stick for burning on the altar.<sup>37</sup> Homolle therefore interpreted it as a shelf on which dedications could be stored. Where the Delian lists read *πρῶτος ῥυμός ἵνα τὸ Α κ.τ.λ.*, he considers that the inventory letters were placed on the shelves.<sup>38</sup> The objects too evidently bore similar inventory marks, one of which has survived on the Bronze Head from the Agora.<sup>39</sup> But *ῥυμός* cannot mean a shelf on the Nikai inscriptions. The statues were surely assembled as works of art between their annual dismemberments.<sup>40</sup> Rather we must look to another Attic inscription for the definition of *ῥυμός* as used in reference to the Nikai. The inventories of the Eleusinion for 408 B.C. and the years following methodically enumerate among the *σκεύη*, that is, the tools or apparatus of the sanctuary, many *ῥυμοί* (*I.G.*, I<sup>2</sup>, 313-4, lines 21 ff.). Certain examples are *σεσιδερομένοι*, others are *ασιδέροτοι*, another *δίκρος*.<sup>41</sup> Following these (line 33) are *ἀρτέματα ρρυνμοῖς*. *Ἀρτήματα* are, apparently, hanging objects, such as earrings. The clarification of the meaning of this word, taken in consideration with its context here, is offered by a passage in Aristotle's *Mechanics* (853 b, 20). *Διὰ τί, αἱ φάλαγγες τὰ κρέα ἰστᾶσιν ἀπὸ μικροῦ ἀρτήματος μεγάλα βάρη. . . .* "Why is it that steelyards weigh great weights of meat with a small counterpoise?"

Thus we see that *ἀρτήματα* are the counterpoise weights that run along steelyards and that *ῥυμοί* are the yards, made of wood and in certain cases strengthened with iron.<sup>42</sup> The association of this word with weighing is ancient. Theognis (77), using the same root, balances gold against silver, *χρυσοῦ τε καὶ ἀργύρου ἀντερύσασθαι*. The same metaphor involving the drag on the yard is reflected in the Delian usage of the word *ὀλκή* (from *ἐλκω*) for *weight*. Likewise the word for *yoke*, *ζυγόν*, as well as *πηχυσ*, was sometimes used for *yard-beam*.<sup>43</sup> The word for yard, then, might easily be used to indicate a group of objects weighed on that yard. Phialai of similar size would be divided into convenient "beamfuls" or weighing-lots. Similarly, portions of the

<sup>36</sup> *I.G.*, II<sup>2</sup>, 1400, lines 33 ff.; 1496, lines 181 ff.; *Inscriptions de Délos*, 399, B, lines 144 ff.

<sup>37</sup> *I.G.*, XI, ii, 154, A, line 18, with note *ad loc.*; 203, A, lines 50-51.

<sup>38</sup> *B.C.H.*, VI, 1882, p. 90; cf. Schulhof and Huvelin, *B.C.H.*, XXXI, 1907, pp. 53 ff.

<sup>39</sup> Thompson, *H.S.C.P.*, Suppl. I, p. 205.

<sup>40</sup> See below, p. 189, note 53.

<sup>41</sup> *I.G.*, I<sup>2</sup>, 313, lines 21-22, and 28.

<sup>42</sup> Statements are usually made in handbooks that the steelyard was not used until late in Hellenistic times; see *Brit. Mus. Guide to Gk. and Rom. Life*, p. 152. But the cited passage certainly shows the use of the principle; possibly all such yards were of wood and have therefore perished. The beam of the scales on the Arkesilas vase, for instance, certainly looks wooden.

<sup>43</sup> See references in Liddell, Scott, and Jones, *Greek-English Lexicon*, s. *vv*.

Nikai that weighed approximately the same amount would be grouped together to be weighed in series, or possibly on a number of different yards simultaneously. The phrase: *σταθμὸν ἄγει καθ' ἑκάστον (ῥυμόν)* is now clear.

This grouping by *ῥυμοί*, then, indicates in what order the parts of the statue came asunder. What is more, they thus hint at the construction. Much light has been thrown on the construction of chryselephantine statues by those recently discovered at Delphi.<sup>44</sup> The excavators cite abundant evidence that the paper-thin gold sheets were overlaid on bronze or silver plaques, which in turn were fastened by pointed bronze or silver nails to a wooden core. No trace of metal armature was found, though this silver alloy certainly seemed to demand “le soutien d'une âme interieure.” Certain figures of lions made of silver overlying bronze plates appear to have had no interior supports. In general, then, it may be said that interior bracing was not universally necessary for statues of precious metals, but that large ones and presumably frail ones, including those from which the metal had to be frequently detached, would probably require bracing. We know that colossal gold and ivory figures, like the Parthenos, needed a central mast, probably braced by cross-armature.<sup>45</sup> Our Nikai, smaller and less complicated, because they were without ivory, would presumably require only such an armature as would hold firm the various portions that built up the bronze core. It must be remembered that the finished statue would probably have been ingeniously fitted together along the lines of drapery and convenient sculptural rather than physical divisions. We know from the way in which ancient moulds are cut that interlocking rather than easy severance determined the partition.<sup>46</sup> Any armature would then be intended to strengthen the assemblage of detachable parts. At least a few bolts or pins must have been needed to secure the final key points of the outer layer of gold itself. In the archaic statues from Delphi, silver rivets with golden heads ornamented as rosettes were used to pin the gold plating securely to its backing. Likewise we should expect the ornaments or accessories of a Nike to be pinned to the bronze within, and such pins would then act as the key bolts to release the outer gold when a knowing hand undid them. Just such pins are listed for the Nikai as *ἤλω, περόναι*.<sup>47</sup>

In connection with this problem of construction, another group of inscriptions should be mentioned. In the meticulous lists of junk stored in the Chalkotheke on the Acropolis in the years 369-367 B.C. (*I.G.*, II<sup>2</sup>, *Addenda* 1424a, line 378, and 1425 B,

<sup>44</sup> Amandry, *B.C.H.*, LIII, 1939, pp. 86 ff.

<sup>45</sup> Dinsmoor, *A.J.A.*, XXXVIII, 1934, p. 95, fig. 2. Cf. Waldstein's elaborate reconstruction, *Essays on the Art of Pheidias*, pp. 280 ff.

<sup>46</sup> C. C. Edgar, *Greek Moulds, Cat. gén. des ant. du musée de Caire, passim*. Cf. *Jahreshefte*, VII, 1904, pp. 154 ff.

<sup>47</sup> See below, p. 198. There is such a bronze nail with a gold head in the Persepolis Collection in the Institute for Advanced Study at Princeton.

line 382) appears a curious item. Following keys, nails, clamps, spear-butts, colanders, and the like occurs this phrase: *διερείσματα τῶν Νικῶν* ΠΙ. The Nikai of the Acropolis would in all probability be the golden statues, but what are *διερείσματα*? The verb *ἐρείδω* means *to brace*, as in the function of the collar-bones.<sup>48</sup> The noun is used in the inscription regarding the Arsenal of Philo (347/6 B.C.) in the sense of a *supporting beam*. Somewhat later, on the Delian inventories the word *ἔρεισμα* is used in connection with small bronze and iron statues.<sup>49</sup> Finally, we have the definition of the grammarian Photius *κνημία: τὰ ἐν τοῖς θρόνοις καὶ τροχοῖς διερείσματα*.



Fig. 6. Kertch Vase Showing Gilded *Kavov*  
(Schefold, *Kertsch. Vas.*, pl. 9a)

Now we can test the obvious meaning, that is, *brace* or *strut*, by studying the use of the word on the Parthenon treasure-lists. Here it is always found in the plural. Three classes of objects boast *διερείσματα*: Nikai, incense-burners, and ritual baskets.<sup>50</sup> Now, these baskets often have large loop-handles of wickerwork and when the basket was reproduced in precious metal, the "wickerwork" naturally took the form of plated rods (Fig. 6).<sup>51</sup> Similarly, incense-burners, or thymiateria, of the period would have had a tripod base, open or filled with a plaque on each side, and a tall central

<sup>48</sup> Soranus Medicus, IV, 2, 63.

<sup>49</sup> *Inscr. de Délos*, 379, line 29; 442, line 171.

<sup>50</sup> Thymiateria: *I.G.*, II<sup>2</sup>, 1382, line 5; 1400, lines 12-13; 1436, lines 44, 47. Baskets: *I.G.*, II<sup>2</sup>, 1425, line 83.

<sup>51</sup> L. Deubner, "Hochzeit und Opferkorb," *Jahrbuch*, XL, 1925, pp. 218-219, figs. 17, 18, 22. Schefold, *Kertscher Vasen*, pl. 9a.



rod, ornamented with leaves or elaborate decorative disks.<sup>52</sup> Since an extravagant amount of solid metal would have been needed to make these parts strong enough, the cost was easily cut down by employing plated bronze rods in the projecting parts or in the tripod base.

The common fundamental need, then, in these three classes of dedications, Nikai, thymiateria, and baskets, was the need of interior support. The nature of the word itself suggests that the support took the form of an armature, or internal rods. The regular use of the plural implies that the braces came in a set. It is not impossible that in such large figures, the *διερείσματα* took the form of inner bronze statues, made in separate pieces, for easy dismemberment, as the Agora Head indicates. In any case, seven *διερείσματα* certainly implies seven Nikai, for seven can scarcely be divided plausibly among the numerous figures of the late fifth century.<sup>53</sup>



Fig. 7. Nike on Hand of  
Varvakeion Parthenos

(Wilkinson, *Greek Sculpt.*, p. 47)

## STYLE

In attempting to reconstruct these figures, we must naturally bear in mind the usual type for a Nike of the period. The prototype must surely have been the Nike on the hand of the statue of the Parthenos by Pheidias (Fig. 7). It is fairly consistently given in the copies as a figure floating quietly forward, holding a fillet or an open wreath stretched between its two hands. A great fold of himation is swung across the body over the left arm. It was six feet high.

Markedly different from this sober type is the Nike of Paionios. It is flying forward with much more spirit; the drapery, driven against the body by the force of the wind, pulls backward in thick folds. The left arm is raised, lifting up the great himation like a huge sail. It is nine feet high and made to be set on a tall base.

<sup>52</sup> K. Wigand, "Thymiateria," *Bonner Jahrb.*, CXXII, 1912, pp. 46 ff.

<sup>53</sup> Woodward's suggestion that they were divided into groups, *Ἀρχ. Ἐφ.*, 1937, p. 168, to fit the two Nikai that survived into the fourth century, "as the Nikai were kept in separate pieces," is unattractive. We have no definite evidence that the Nikai were in a perpetual state of dismemberment. The fact that thieves had to *cut off* the akroteria implies that the figures were standing as complete statues at the time. We should therefore suppose *διερείσματα* would have been in active service in the Parthenon as long as the Nikai existed. Rather, we should assume that the *διερείσματα*, stored away with junk, belonged to the Nikai of the fifth century, now *ἄχρηστοι*, *ἄχρηστοι*. They could easily have been brought into the Chalkotheke by Androtion, when he was tidying up the Parthenon in 370 B.C. (see pp. 177, 208); cf. Thompson, *H.S.C.P.*, Supplement I, p. 205.

The figures from the reliefs of the parapet of the temple of Athena-Nike show various poses, some standing, some moving (Fig. 8).<sup>54</sup> The drapery is consistently



Fig. 8. Nike from Parapet

clinging and modelled to give movement and the flicker of light to the figures. They are all about three feet high.

Finally, there are six Roman copies of Nikai that must be considered in relation

<sup>54</sup> R. Carpenter, *The Sculpture of the Nike Temple Parapet*, p. 31.

to the type. Three are now in Berlin,<sup>55</sup> others in Paris, Alexandria, and Oxford.<sup>56</sup> They all reproduce, with slight variations, a floating Nike, frontal and rather rigid in composition, with the drapery transparent over the legs, but drawn as a broad and heavy mass across the body to hang over the left arm (Fig. 9). Two of these (Berlin K 181-2) are six feet high; one is only four feet high (Berlin K 183). That these



Fig. 9. Nike in Berlin

(Blümel, *Staatl. Museen zu Berlin, Röm. Kopien gr. Skulpt.*, K 182)

copies reflect an important monumental statue is obvious. Bulle relates them to the bronze Nike set up to celebrate Sphakteria, that is, shortly after 425 B.C.<sup>57</sup> But the type and the style seem distinctly earlier than those of the Nike of Paionios, which commemorates the same event. The frontality and the heavier drapery, not to mention the pose, are much closer to those of the Nike of the Parthenos, as has been pointed

<sup>55</sup> C. Blümel, *Staatl. Museen zu Berlin, Röm. Kopien gr. Skulpt. des fünften Jahrh.*, K 181-3, pls. 74-76.

<sup>56</sup> *Ibid.*, fig. 9. H. Schrader, "Das Zeusbild des Pheidias in Olympia," *Jahrbuch*, LVI, 1941, pp. 13 ff.

<sup>57</sup> Roscher, *Lexikon*, III, 338.

out by Blümel<sup>58</sup> and Schrader. Schrader considers the set very Pheidian and probably close to the Nikai on the hands of the two colossi. But, as Blümel notes, the drapery seems post-Pheidian in spirit. The period 435-425 B.C. seems, according to modern ideas, more plausible than that after 425 B.C. It must be noted that structurally the statues are early and that the transparent drapery has been carved on the surface by the copyist rather than created by the sculptor. The sharp incisions and furrows contrasted with broad smooth areas certainly suggest a metal original. For our Nike statues which have—strange to relate—a date, but no type, these figures of the correct date and plausible type offer valuable suggestions. It even is not impossible that the inner statues of our Nikai, the *διερείσματα*, survived into the Roman period, to inspire the copyists for the Italian market. That would account for the peculiar fact that two copies turned up together and that they differ from each other in significant details.<sup>59</sup>

For the Nike (*M*) dedicated in 374 B.C., we may perhaps safely use the numerous figures on coins, particularly on the gold coins of Alexander (Fig. 2).<sup>60</sup> They stand or move slowly; they wear rather heavy drapery; their general type is that of the Eirene of Kephisodotos, which dates in the same period as the Nike. In their hands these Nikai hold a wreath or ship's ornaments as symbols of victory.

Taking these general types as standards, it will now be illuminating to examine each inscription in order to paint in the detail and personal character of each Nike. We must examine each item on the lists, make certain of the exact meaning of each word and try to find an illustration for each item on a contemporary monument. For the chronology of the inscriptions and epigraphic detail, we shall follow the fundamental studies of Professor Woodward.<sup>61</sup>

## DESCRIPTION

In order to determine the meaning or significance of the terms used on the inscriptions, it would seem most convenient to group them according to subject, to examine them in detail, and then to correlate the results with reference to the various Nikai. Instances are referred to according to the citations in the List of Nikai (*supra*, pp. 174 ff.). In several cases, the given word could be convincingly restored so that its absence from one inscription is often merely fortuitous and the argument from silence cannot be employed.

<sup>58</sup> *Op. cit.*, p. 42.

<sup>59</sup> Note that the type is identical, so far as the preservation goes, but that the style, particularly of the drapery and its arrangement over the knees, differs. The curious blank space on the right thigh, showing a break in the Paris statue, an untreated area on the Berlin copies, and an attachment mark on the Oxford piece, has a strange outline that lends itself to the restoration of an aphlaston of the type seen on the red-figured sherds, held close against the body. See below, p. 201.

<sup>60</sup> Seltman, *Gk. Coins*, pl. XLVIII, 1, 2, 9; E. Babelon, *Rev. Num.*, 1907, pp. 1 ff.; P. Lederer, *Zeitschrift für Numismatik*, XXXIII, 1922, pp. 185 ff.

<sup>61</sup> *Αρχ. Έφ.*, 1937, pp. 159 ff.; *H.S.C.P.*, Suppl. I, pp. 377 ff. I have checked each inscription for which a squeeze is on file at the Institute for Advanced Study in Princeton.

## PARTS OF THE BODY

Χεῖρ, Σκέλε, Πόδε. No peculiarities can be discerned in the usage of these words as arm (and hand), legs, feet.

Πρόσωπον, Κεφαλή. For *head*, however, the fifth-century examples differ from those of the fourth century; the former use *πρόσωπον*; the latter *κεφαλή*.<sup>62</sup> Of the numerous citations in Liddell and Scott for *πρόσωπον* from Homer downward, each refers clearly to the face or front part of the head alone. But in early Attic Greek the word *κεφαλή* is rare, occurring only once in Aischylos and in Sophokles, but in Euripides it is common.<sup>63</sup> In the treasure-lists of the later fifth century, it occurs once (*I.G.*, I<sup>2</sup>, 276, line 11). It seems possible, therefore, that it was not a common Attic word and that the word *πρόσωπον* was more familiar to the recorders.

Θώραξ. This usually means a breast-plate. But since Nikai of the period are never armed, the recorders of the treasure-lists<sup>64</sup> must have used the word according to medical usage to mean *torso*, ἀπ' αὐχένος μέχρι αἰδοίων.<sup>65</sup> This interpretation is supported by the fact that our calculation for the human torso, measured from shoulders to hips, falls 400 dr. short of the figure given, with little margin of error, on the 2nd ῥυμός of Nike J. The division between thorax and legs was probably made below the hips. This assumption is corroborated by the fact that our calculation for the human legs becomes 150 dr. too heavy. Allowances for drapery simply cannot be made exact.

## ORNAMENTS

Στεφάνη. This was worn by Nikai J and M.<sup>66</sup> The word appears to be used of almost any ornament that binds the head, such as a fillet or diadem.<sup>67</sup> Possibly, when worn alone, it would resemble a fine example in the British Museum.<sup>68</sup> Where both *στεφάνη* and *στέφανος* are worn, as by Nike M, the *στεφάνη* would be a fillet like those shown beneath wreaths on the Kertch vases (Fig. 10).<sup>69</sup>

<sup>62</sup> *Hesperia*, IX, 1940, p. 309, No. 27, line 9 (Nike E). Woodward, No. 3, line 4; Woodward, No. 4, line 8 (Nike I). *I.G.*, II<sup>2</sup>, 1388, line 17; 1407, line 8; 1440, line 41 (Nike J). *I.G.*, II<sup>2</sup>, *Addenda* 1424a, line 51; 1425, line 47; *Addenda* 1428, line 10; 1431, line 7 (Nike M).

<sup>63</sup> See references in Liddell, Scott, and Jones, *Greek-English Lexicon*, s. vv. *κεφαλή*, *πρόσωπον*.

<sup>64</sup> *Hesperia*, IX, 1940, pp. 309-310, No. 27, line 8, and No. 28, line 5 (Nikai E and J). Cf. *I.G.*, II<sup>2</sup>, 1388, line 19; 1407, line 9; *Addenda* 1428, line 30 (Nike J); and *Addenda* 1424a, line 55; 1425, line 54; *Addenda* 1428, line 16 (Nike M).

<sup>65</sup> Aristotle, *H.A.*, 1, 7, 1 (491a). Cf. Hippokrates, *De arte*, 10, etc.

<sup>66</sup> *I.G.*, II<sup>2</sup>, 1388, line 17; 1407, line 8; *Addenda* 1424a, line 6; *Addenda* 1428, line 27; Woodward, No. 16, line 41 (Nike J). II<sup>2</sup>, *Addenda* 1424a, line 51; 1425, line 47; 1431, line 7 (Nike M).

<sup>67</sup> Boeckh, *Staatshaushaltung*<sup>2</sup>, II, p. 243.

<sup>68</sup> *Cat. of Jewellery*, pl. XXVII, 1607, 1609-10.

<sup>69</sup> W. Hahland, *Vasen um Meidias*, *passim*, and K. Schefold, *Kertsch. Vasen*, pl. 13a.

Στέφανος. The vases of the latter part of the fifth and of the fourth century begin to show Eros and Nike carrying wreaths composed of leaves, made up as finished crowns.<sup>70</sup> They differ from the earlier type of wreath opened out like a fillet to tie in place around the head, such as appears, for instance, on vases and on that early reflection of the Parthenos type on the coins of Aphrodisias.<sup>71</sup> These crowns varied considerably in weight; those offered human beings usually weighed from 500 to



Fig. 10. Kertch Vase

(Schefold, *Kertsch. Vas.*, pl. 13a)

1000 drachmai, but the wreath on the head of the Nike held by the Parthenos is recorded at only 70 drachmai. The heaviest gold crown now in the British Museum, on the other hand, weighs only *ca.* 55 drachmai,<sup>72</sup> and others are much flimsier, being mere grave jewellery. The crowns worn and held by our Nikai should, on the analogy of size, resemble that belonging to Athena's own Nike. When the wreath of Nike *M*, missing at first, is added on the record, the increased weight is 100 drachmai and 3 obols.

<sup>70</sup> Hahland, *op. cit.*, pl. 3. *I.G.*, II<sup>2</sup>, 1388, line 22; 1400, line 11; *Addenda* 1424a, line 17 (Nike *J*). II<sup>2</sup>, 1502, line 1 (Nike *L*). *Addenda* 1424a, line 51; 1425, lines 48-49 (Nike *M*).

<sup>71</sup> *A.J.A.*, XXXVIII, 1934, p. 104, fig. 4.

<sup>72</sup> *Cat. of Jewellery*, no. 1628, pl. XXVIII.

Ἐνωιδίω, Ἐνώϊδια. The etymology of this word is self-evident. It is used by Aischylos<sup>73</sup> and elsewhere on the treasure-lists (*I.G.*, I<sup>2</sup>, 288, line 229). Types of earrings that were popular in the late fifth century were the disk, leech, and simple pendant, of which the rosette disk with dangling inverted pyramid appears on the Parthenos as shown by the Aspasios gem and the Kul Oba medallions.<sup>74</sup> In the fourth century, a more elaborate type, possibly with a pendant in the form of a flying Nike, would be probable.<sup>75</sup>

Ὅρμος. This necklace seems to have been an essential part of the Nike's attire and appears on the well-preserved inscriptions.<sup>76</sup> To judge from the Delian inscriptions, it was a necklace with pendants. The pendants may take the forms of amphorae, of nuts, of spears, or again, of rosettes. Numerous examples give us a clear picture of the type (Figs. 10, 11).<sup>77</sup>

Ἵποδερίς. Several Nikai (*E, J, M*),<sup>78</sup> wear another necklace, to which Aristotle likens the eggs of a snake.<sup>79</sup> We may conjecture that the necklace was composed of beads and that it lay at the base of the throat. Contemporary figures are shown wearing two necklaces, of which only one has pendants (Fig. 11).<sup>80</sup>

Περιτραχηλίδιον. Nike *J*, despite the two preceding necklaces, finds room, from 385/4 B.C. onward, to add a *περιτραχηλίδιον*.<sup>81</sup> The word does not appear to occur elsewhere. *Περιτραχήλιον* is used by Plutarch<sup>82</sup> as the collar (?) of a helmet. It is difficult to see exactly how the word could be applied to a woman's costume except in the sense of a necklace. It is peculiar, however, that the addition of the *περιτραχηλίδιον* does not add to the total weight of the ῥυμός but actually, where the weight is preserved, the total is 62 drachmai short. It is not impossible, therefore, that a difference in description after the revision that took place at this time may account for the new item. Not unlikely is the possibility that the cross-bands of the *στρόφιον*, which became unfashionable in the fourth century, were described as a separate item in the later lists.<sup>83</sup>

<sup>73</sup> Fragment 102 (Nauck<sup>2</sup>). *Hesperia*, IX, 1940, p. 310, no. 28, line 3; *I.G.*, II<sup>2</sup>, 1388, line 17; *Addenda* 1428, line 27 (Nike *J*). *Addenda* 1424a, line 52 (Nike *M*).

<sup>74</sup> Cf. Dinsmoor, *A.J.A.*, XXXVIII, 1934, p. 104, fig. 4.; and cf. *Olynthus*, IV, no. 410.

<sup>75</sup> *Cat. of Jewellery in the British Museum*, pl. XXXII and fig. 62.

<sup>76</sup> See all well-preserved inscriptions for Nikai *G, I, J, M*.

<sup>77</sup> *Cat. of Jewellery in the Brit. Mus.*, pl. XXXV, nos. 1947, 1952; pl. XXXVI, nos. 1950, 1957, etc.; C. Alexander, *Jewelry*, pp. 5 ff.

<sup>78</sup> *Hesperia*, IX, 1940, p. 309, no. 27, lines 9-10 (Nike *E*). Woodward, No. 5, line 14; 1388, line 17; 1400, lines 8-9; *Addenda* 1428, line 27 (Nike *J*). *Addenda* 1424a, line 52; 1425, line 50; 1431, line 9 (Nike *M*).

<sup>79</sup> *H.A.*, 5, 34 (558b).

<sup>80</sup> Statue of Athena from the Acropolis, G. Dickins, *Cat. of Acrop. Mus.*, no. 1337.

<sup>81</sup> *I.G.*, II<sup>2</sup>, 1407, line 9; *Addenda* 1424a, line 11; *Addenda* 1428, line 31 (Nike *J*).

<sup>82</sup> *Alexander*, 32.

<sup>83</sup> They are very rare on Kertch vases and on Athenian grave stelai of the early fourth century.



Fig. 11. Statue of Athena, Acropolis



Ἀμφιδέα. Another essential ornament for a lady of the period was the bracelet.<sup>84</sup> Aristophanes lists ἀμφιδέα among other ornaments, of which we see many examples among the well-dressed damsels of the Meidian period (cf. Fig. 10).<sup>85</sup> The commonest forms at this time were hoops ending in lion or ram heads or twists finished in snake heads.<sup>86</sup> They were usually worn above the wrist.

Στρόφιον. This has been translated as *breast-band* on the evidence of certain Aristophanic passages.<sup>87</sup> But the substitution of the word ζώνιον where στρόφιον had been used in the fifth-century inscriptions<sup>88</sup> hints that this interpretation may be inaccurate. Certainly there is no evidence at this period for a broad band that bound the breasts in the manner of the Hellenistic κεστός. The στρόφιον, to show on a gold statue, would have to be worn on top of the drapery. It must therefore be interpreted as the band, sometimes decidedly broad, that is worn by active figures, such as charioteers or Nikai, crossed between the breasts and tied around the waist.<sup>89</sup> The Nikai on the Parapet reliefs as well as the copies in Berlin wear it. The word στρόφιον derived from στρέφω simply means a cord, which suits this ornament perfectly. An ornate example in the British Museum, of Hellenistic times,<sup>90</sup> rendered in gold weighs only a little over four drachmai. Ζώνιον on the other hand may mean only the girdle proper, for the cross-bands seem to fall into abeyance just at the time of the dedication of the Nike.<sup>91</sup>

Ἥλω, Περόναι. The difference between these two words appears to be that the former designates an ornamental pin and the latter a long-spiked pin or brooch. This difference is borne out by our inscriptions. Ἥλω usually occur only in the first ῥυμός.<sup>92</sup> They would then be short ornamental studs for fastening the στεφάνη or the necklaces to the throat. Holes for such pins are visible on the Nikai of the Parapet (Fig. 8) and on the Bronze Head (Fig. 4).<sup>93</sup> Περόναι are listed in conjunction with the feet

<sup>84</sup> Woodward, No. 3, line 10; II<sup>2</sup>, 1388, lines 18, 22; 1400, lines 9, 11; *Addenda* 1424a, lines 8, 16; *Addenda* 1428, lines 28, 36 (Nike J). Woodward, No. 3, lines 14-15 (Nike K). II<sup>2</sup>, *Addenda* 1424a, line 53; 1425, line 51; 1431, line 10 (Nike M).

<sup>85</sup> Aristophanes, fragment 320, 11; Pfuhl, *Malerei und Zeichnung*, figs. 560 ff.

<sup>86</sup> *Cat. of Jewellery in the Brit. Mus.*, pl. XXXIX.

<sup>87</sup> *Lys.*, 931; *Thesm.*, 255.

<sup>88</sup> Στρόφιον: Woodward, No. 5, line 16; *I.G.*, II<sup>2</sup>, 1388, line 19; 1393, line 8; 1400, lines 9-10; 1407, line 9; *Addenda* 1424a, line 10; *Addenda* 1428, line 30 (Nike J). Woodward, No. 4, line 3 (Nike L). Ζώνιον: II<sup>2</sup>, *Addenda* 1424a, line 55; 1425, line 55, reading ζώνιον (Nike M).

<sup>89</sup> Pfuhl, *Malerei und Zeichnung*, figs. 560 ff.

<sup>90</sup> *Cat. of Jewellery in the Brit. Mus.*, pl. XXXVIII, 1984.

<sup>91</sup> They do not often appear on Kertch vases; see above, p. 195.

<sup>92</sup> Woodward, No. 4, line 9 (Nike J). *I.G.*, II<sup>2</sup>, 1388, line 17; 1400, line 9; *Addenda* 1424a, line 7; and *Addenda* 1428, line 27 (Nike J). II<sup>2</sup>, 1425, line 52 (Nike M).

<sup>93</sup> Thompson, *H.S.C.P.*, Suppl. I, p. 183, note 2.

and the ἀπόπτνγμα (Nike I), with θώραξ and στρόφιον (Nike L), with legs and κατωρίδε (Nike L), as well as with θώραξ and ζώνιον (Nike M). Of the περονίδες listed with the feet of Nike M, one is noted as "shut up" or "thrust in place."

The number of these pins and the variety of their usage suggest that they were not purely ornamental. But the fact that they were of gold forbids their being of any serious structural value. At Delphi silver pins, of some structural use, were given golden heads so that they appeared as part of the surface decoration.<sup>94</sup> Presumably those of the Nikai played a similar rôle.

#### ACCESSORIES AND MISCELLANIES

Ἀπόπτνγμα is known only from the Nike inscriptions. Long ago Boeckh identified it as the overfold of the chiton,<sup>95</sup> a definition that has established itself among archaeologists. The Liddell, Scott, and Jones *Greek-English Lexicon* defines it slightly differently, as *part of the chiton folded back*. Indeed, the force of ἀπό would scarcely be expected to suggest the loosely hanging overfold, for it seems rather to mean *un- or out-fold* than *turned over*.

The evidence from the inscriptions themselves is scanty. The ἀπόπτνγμα is weighed with (a) the θώραξ,<sup>96</sup> (b) the right hand,<sup>97</sup> (c) the feet.<sup>98</sup> Its weight we have estimated at 1450-1650 drachmai, which is one of the heaviest items. It appears also to be the most variable item on the Nike lists.

Glancing at the monuments contemporary with the inscriptions, we find that the overfold of the chiton varies considerably in size. The overfolds worn by the Nikai of the Parapet and by the Nereids have lost the heavy character of the Pheidian form: they are often merely a little ripple of drapery. But on the Nike of the Parthenos and on the Berlin figures a great broad area of himation is folded back across the thighs so that the figure is divided in thirds: θώραξ, ἀπόπτνγμα, and legs. Or again, on the Nike of Paionios a great sweep of drapery, both of the chiton and of the himation, blows back, even close to the feet, so that again the body might be conveniently divided into thirds: θώραξ, legs, and ἀπόπτνγμα, which could be weighed with the feet. Similarly, on the fourth-century coins (Fig. 2) a triple division is made by balancing θώραξ and legs against the long overfold which reaches to the knees. It seems, therefore, that the ἀπόπτνγμα was roughly used of any large unfolded or open area of drapery for which no other category was obvious, and in limiting it to a specific area of the chiton, archaeologists are making a scientific term of a vague one.

<sup>94</sup> *B.C.H.*, LIII, 1934, p. 97. See above, p. 187.

<sup>95</sup> *Staatshaushaltung*<sup>2</sup>, II, p. 244.

<sup>96</sup> *Hesperia*, IX, 1940, p. 209, no. 27, lines 7-8 (Nike E).

<sup>97</sup> Woodward, No. 3, line 3; *idem*, No. 4, line 7 (Nike I).

<sup>98</sup> *I.G.*, II<sup>2</sup>, 1388, line 20; 1400, line 10; *Addenda* 1428, line 33 (Nike J). *I.G.*, II<sup>2</sup>, *Addenda* 1424a, line 60; 1425, line 60 (Nike M).

The phrase *τοῦπισθεν θοῖματίον*<sup>99</sup> brings to mind the back of the cloak that flies out behind the Nike of Paionios. It would probably be that portion held up by the hand. It seems probable that *χρυσίον ὀπίσθιον*<sup>100</sup> refers to the same thing. *Χρυσίον* is merely a plate of gold. The weight which we have estimated for it, 1350-1380 drachmai, less than those of the *θώραξ* and the *ἀπόπτυγμα*, would seem reasonable for a thin sheet of flying drapery.

*Στολὶς* the diminutive of *στολή*, a garment, was commonly used for the folds of garments.<sup>101</sup> That would seem its most plausible meaning in the later lists for Nike *J*.<sup>102</sup> For since the weight of the *ῥυμός* decreases when the *στολίδε* first appear, we must suppose that they were originally part of the garment, become detached and therefore listed separately. The use of the dual suggests a balanced pair, perhaps the fold hanging down by either arm.

*Χρυσίδια*, *Χρυσία*. The peculiarity of these scraps of gold is that they appear only on the lists for Nike *J*. Moreover, they increase with time. Appearing at first only in the first *ῥυμός* they finally seem to occur in all five *ῥυμοί*.<sup>103</sup> It has been suggested that they were the key bits of gold that were slipped into the grooves as on the Bronze Head from the Agora.<sup>104</sup> But in that case they should have existed in all the *ῥυμοί* for all the Nikai. Possibly the earlier example employed them in this fashion, and as time went on they broke up and thus seemed to increase, whereas for the later Nike some more satisfactory device was used. But when we consider that the word *χρυσίον* elsewhere was used of odd bits or objects hard to name otherwise, like the *χρυσίον ὀπίσθιον*, we are driven to the conclusion that the useful word included any part or accessory that the recorders found hard to define or identify.

*Κατωρίδε*, which appear on the lists for Nike *J* and Nike *M*, have usually been interpreted as the "pendent ends of the wreath."<sup>105</sup> This interpretation is probably based on the fact that the words follow the *στέφανος* held by Nike *J*. But on the inscriptions relating to Nike *M* they accompany the legs, and are even joined to them by an

<sup>99</sup> *Hesperia*, IX, 1940, p. 309, No. 27, line 6 (Nike *E*).

<sup>100</sup> Woodward, No. 3, line 12; II<sup>2</sup>, 1388, lines 23-24 (reading *ἀκρωτ[ή]ριον, χρυσίον ὀπ[ίσθ]ιον*); 1400, lines 11-12 (reading *ἀκρωτήριον, χρυσίον ὀπίσθιον*); 1425, lines 14-15; 1431, line 2 (Nike *J*). II<sup>2</sup>, *Addenda* 1424a, line 56; 1425, line 55 (Nike *M*). *Ὀπίσθιον* alone is found in II<sup>2</sup>, 1407, line 11 (reading *ἀκρωτήριον, ὀπίσθιον*), and *Addenda* 1424a, line 19 (Nike *J*).

<sup>101</sup> Euripides, *Bacchae*, 936.

<sup>102</sup> *I.G.*, II<sup>2</sup>, *Addenda* 1424a, line 11, and *Addenda* 1428, line 31.

<sup>103</sup> Woodward, No. 3, line 10; II<sup>2</sup>, 1407, lines 9-10; *Addenda* 1424a, lines 8, 11, 14, 17, 20; 1425, line 15; *Addenda* 1428, lines 28-29, 31-32, 34, 37-38.

<sup>104</sup> Thompson, *H.S.C.P.*, Suppl. I, p. 202.

<sup>105</sup> *I.G.*, II<sup>2</sup>, 1388, line 22; 1400, line 11 (Nike *J*); *Addenda* 1424a, line 59 (Nike *M*). See the definition in Liddell, Scott, and Jones, *Greek-English Lexicon*, s. v.

emphatic *καί*. Like legs, arms, and feet, they are expressed by the dual. The weight, 900-1000 drachmai, is much too heavy for fillets.

The noun *κατωρίς* is otherwise unknown, but an adjective *κατώρης* and a variant *κατήρορος* occur.<sup>106</sup> Hesychius derives this from *κάτω ῥέπων*, an etymology which does not look likely and has not been accepted by modern scholars. Boisacq, while deriving the word from *κατα* + *αορ*, retains the meaning of *pendent*.<sup>107</sup> *Καταίρω* is commonly used of birds and bees swooping down; the adjective is applied to a crowd of children hanging on their mother's neck, or to a dangling *τελαμών*.<sup>108</sup> *Κατωρίδε*, then, must be a pair of sizable objects which obviously "dangle" or "hang down." The wings alone can fulfill these requirements. In fact, *κατωρίδε* is the only word on the lists that could possibly be construed as wings. The weight, tested against a very rough calculation, is possible, though somewhat light.<sup>109</sup> The only alternative, that the Nikai did not have wings, seems, on close examination of the literature concerning the *ἄπτερος* type, to be highly unlikely.<sup>110</sup> Athena, as Nike, might conceivably be wingless, but Nike on all Attic monuments of the period is invariably winged and the exceptions in Russia and South Italy seem themselves to be flukes.<sup>111</sup> Barring other evidence then, we must accept that it is the most likely term on the lists, and that the word is otherwise unknown, like certain other expressions on these lists, and must be explained by the fact that recorders did not use literary expressions, but technical jargon.

*Συν[ωρίδε*. Woodward, No. 3, reads in *I.G.*, I<sup>2</sup>, 369, line 5: *χέρ ἄκρα ἀριστερά, συν[ορίδε δύο*.<sup>112</sup> If correct, this phrase would be the only occurrence on the Nikai inscriptions. But the meaning, *couplings* or *fetters* is not intelligible in the context. More plausible would be the restoration of a noun after *χείρ*, such as *σὺν ἀμφιδέα*, that is, the hand with the bracelet, on the analogy of occasional descriptive phrases

<sup>106</sup> *Anth. Pal.*, V, 260 (Paton: 259 Stadtmüller).

<sup>107</sup> *Dictionnaire étymologique*, s. v. *καταίρω*; cf. N. De Witt, *Class. Phil.*, III, 1908, pp. 31 ff.

<sup>108</sup> Euripides, *Troïades*, 1090; Apollonius Rhodius, II, 1041.

<sup>109</sup> Let us consider each wing roughly as a right-angled triangle having its height equal to 3/4 of the height of the statue (6 ft.), its base equal to 1/6 of the height of the statue (6 ft.). Then, two such triangles, that is the two wings, would make up a rectangle of which the area can be estimated by multiplying height by width. Thus we derive the formula:

$$3/4 \left\{ \begin{array}{l} 6 \text{ ft.} \\ 180 \text{ cm.} \end{array} \right\} \times 1/6 \left\{ \begin{array}{l} 6 \text{ ft.} \\ 180 \text{ cm.} \end{array} \right\} \times .08 \times 19.4 = \text{grams of gold.}$$

Divide by 4.31 gr. to the drachma:

$$3/4 \times 180 \times 30 \times .08 \times 19.4 \div 4.31 = \text{ca. } 1450 \text{ dr. for the two wings.}$$

This actually must be large, for it does not allow for the undercut tapering of the wings shown on the monuments.

<sup>110</sup> Pauly-Wissowa, s. v. *Νίκη* (Bernert).

<sup>111</sup> *Ibid.*, cols. 288 f.

<sup>112</sup> Woodward's printer here, as several times in this text, has treated him shabbily: at *χέρ ἄκρα* [(ἄ)ριστερά, *συν[ο]*- the squeeze at the Institute for Advanced Study in Princeton reads *ΧΕΡ ἈΚΡΑ ΑΡΙΣΤΕΡΑ ΣΥΝ* clearly.

such as *στέφανος ὁ ἐπὶ τῇ κεφαλῇ*. Or it might be the object held in the hand, like *ἀκρωτήριον*.

*Ἀκρωτήριον*. An *ἀκρωτήριον* is listed for Nikai *F*, *H*, *I*, *J*,<sup>113</sup> but not for Nike *M*. It is therefore a common but not an essential attribute of a Nike. It is usually associated in the lists with the hands; in one case with the fingers of the left hand; in another with the right hand. Its weight must not be more than 300 dr.

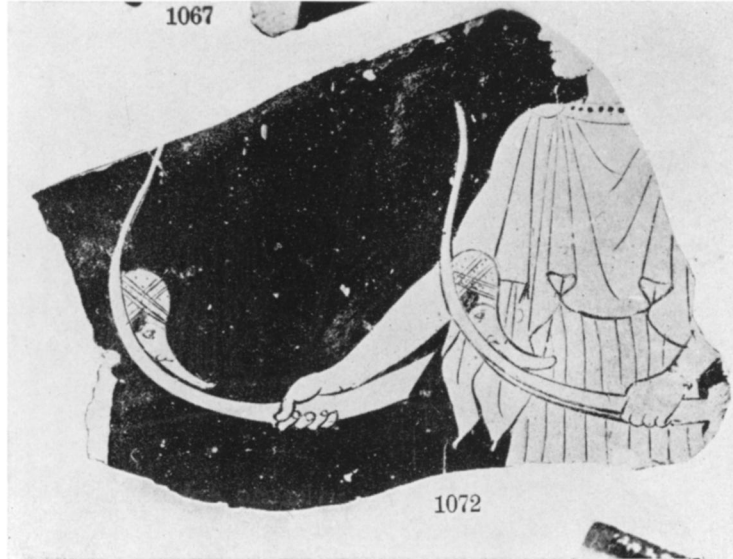


Fig. 12. Female Figure Holding Stern-Ornaments of Ship  
(From Graef-Langlotz, *Die antiken Vasen von der Akropolis zu Athen*, Plate 83)

In the fifth century, the word was used for the extremities or tips of any object, especially of parts of the body. *Ἀκρωτηριάζειν* meant to cut off the *ἀκρωτήρια*, either the hands and feet of an enemy or the prow and stern ornaments of a ship. These *ἀκρωτήρια* made a handsome offering to a god.<sup>114</sup> The inscription of the Stoa of the Athenians at Delphi gives a famous instance:<sup>115</sup> *Ἀθηναῖοι ἀνέθεσαν τὴν στοὰν καὶ τὰ ὀπλ[α κ]αὶ τὰ κρωτήρια ἐλόντες τῶν πολε[μίων]*. Again, we note that the great statue made from the booty of the Persian wars, eighteen feet high, held an akroterion,<sup>116</sup> *ἔχων ἐν τῇ χειρὶ ἀκρωτήριον νεός*. Possibly this figure is reflected on two red-figure fragments from the Athenian Acropolis *ca.* 460 B.C. (one shown in Fig. 12) with

<sup>113</sup> *I.G.*, I<sup>2</sup>, 368, line 20 (Nike *F*). Woodward, No. 3, line 5; *idem*, No. 4, line 9 (Nike *I*). Woodward, No. 3, line 1 (Nike *H*?). Woodward, No. 3, line 12; II<sup>2</sup>, 1388, line 23; 1400, line 11; 1407, line 11; *Addenda* 1424a, line 19; *Addenda* 1428, line 39 (Nike *J*).

<sup>114</sup> Herodotos, III, 59.

<sup>115</sup> M. Tod, *Greek Historical Inscriptions*, p. 21, no. 18.

<sup>116</sup> Herodotos, VIII, 121.

female figures holding the stern-ornament of a ship, the aphlaston.<sup>117</sup> In later times, another ship-ornament, the stylis, a tall yard-arm or signal mast of the flag-ship (Fig. 13), is shown in the hands of Nikai as a victorious emblem.<sup>118</sup> Sometimes both ornaments are held by one figure, especially on the Panathenaic vases and coins of

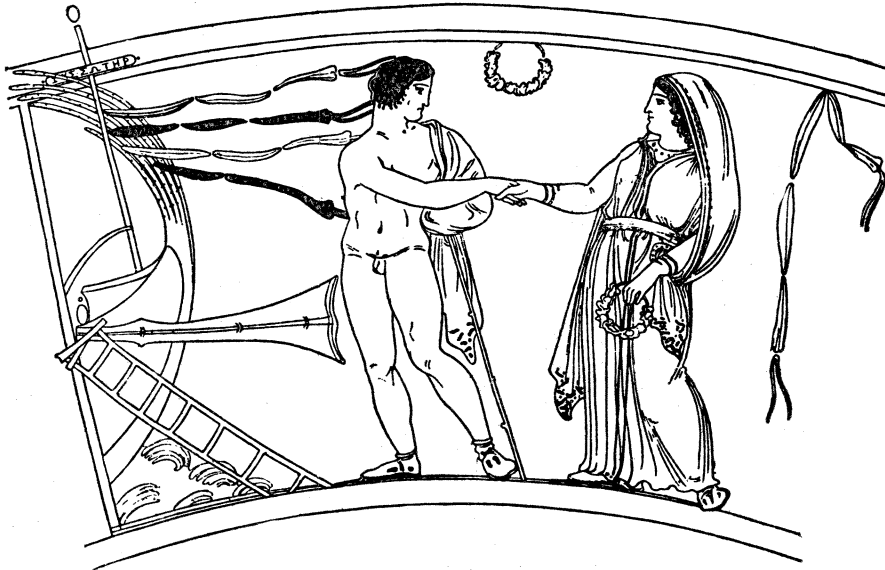


Fig. 13. Ship Showing Stylis and Aphlaston

(*Jahrbuch*, XLII, 1927, p. 180)

the fourth century (Figs. 2, 14). Both these ornaments were called ἀκρωτήρια or ἀκροστόλια.<sup>119</sup>

The stylis, as the most awkward piece, is usually shown in the left hand, the aphlaston in the right. This fact may explain the ἀστέρε or stars that flash unexpectedly in the record for Timodemos' Nike (*K*).<sup>120</sup> They appear in conjunction with

<sup>117</sup> Graef-Langlotz, *Die antiken Vasen von der Akropolis zu Athen*, II, pl. 83, nos. 1071-2; cf. pl. 40, no. 516. H. Diels, "Das Aphlaston der antiken Schiffe," *Zeitschrift des Vereins für Volkskunde*, XXV, 1915, pp. 61 ff.

<sup>118</sup> For stylis, see L. Deubner, "Dionysos und die Anthesterien," *Jahrbuch*, XLII, 1927, pp. 180 ff., figs. 12-16.

<sup>119</sup> C. Torr, *Greek Ships*, p. 68, note. For coins, cf. J. Svoronos, *Journ. int. d'arch. numismatique*, 1914, pp. 84 ff.; E. Newell, *Coinages of Demetrius*, pp. 32, 85 f. For Panathenaic vases dating 336/5, 333/2, 321/0 B.C. cf. Thompson, *H.S.C.P.*, Supplement I, p. 206; cf. Swindler, *Ancient Painting*, fig. 347. After writing the above I found that a similar interpretation has been offered by H. T. Wade-Gery, *J.H.S.*, LIII, 1933, pp. 99 ff. However, he draws attention to a gem (Furtwaengler, *Ant. Gem.*, pl. IX, 33) which he calls a flying Nike. The type is actually that of the Athena Parthenos, holding an aphlaston, but not winged. This might be taken to represent one of our Nikai, were it not that the spear, shield, and serpent are never mentioned on any of the Nikai inscriptions.

<sup>120</sup> Woodward, No. 3, line 14.

the left hand and may well have been the ornaments of the Dioskouroi that often decorated the cross-bar of the stylis.<sup>121</sup>

Heretofore, the usual interpretation of the word *ἀκρωτήριον* in these inscriptions has been based on a passage in Demosthenes. He describes the crime of those thieves that stole the *ἀκρωτήρια* from the Nike and committed suicide (XXIV, 121): . . . οἱ τὰ ἀκρωτήρια τῆς Νίκης περικόψαντες ἀπώλонт' αὐτοὶ ὑφ' αὐτῶν. . . . The scholiasts on Demosthenes, *ad. loc.* (ed. Dindorf, *Demosthenes*, IX [Oxford, 1851], p. 779, 738, 14) define the *ἀκρωτήρια* as τῆς Νίκης τῶν πτερῶν τὰ ἄκρα· ἢ αὐτὰς τὰς πτέρυγας, and add *ἀκρωτήρια λέγει οἰονεῖ τὰ πτερά· οὕτω γὰρ γράφεται ἡ Νίκη· τινὲς δὲ ἐξηγοῦνται, Νίκης Ἀθηνᾶς εἶναι ἄγαλμα ἐν τῇ ἀκροπόλει. ταύτης δὲ τὰς πτέρυγας χρυσᾶς οὔσας ἐπεχείρησάν τινες ἀφελέσθαι. . . .* This definition has usually been accepted. But we have seen that the word never occurs on the lists in the plural,<sup>122</sup> and in fifth-century Greek it is scarcely possible to describe a pair of wings as a singular. Moreover, we have good evidence that the *ἀκρωτήριον* weighed no more than 300 drachmai, an impossibly small amount for two wings. We have noted that Nikai even in the earlier fifth century held the *ἀκρωτήρια* of ships in their hands. The scholiasts' definition must be due to a misunderstanding. How can we then explain Demosthenes' remarks? For he was writing at the time and probably himself saw the extent of the damage.



Fig. 14. Panathenaic Amphora, 336 B.C.

(Swindler, *Ancient Painting*, fig. 347)

Taken on their surface value, the words offer no difficulty. The thieves broke off the most easily detached portions of the figure, namely, the ship's ornament in her hand. They, or other thieves, may also have broken off other *ἀκρωτήρια* or extremities—the tips of the wings being likely prey. The stories, or merely the term *ἀκρωτήριον*, became confused; very possibly the scholiast had no idea of the attributes of a Nike and interpreted *ἀκρωτήρια* as best he could. The confusion is obvious, almost inevitable; it accounts for the use of the singular on the extant inscriptions. Can it find any more support on the inscriptions themselves?

<sup>121</sup> Svoronos, *loc. cit.*, p. 130; Ptolemy, *Almagest*, VIII, 1.

<sup>122</sup> In *I.G.*, I<sup>2</sup>, 368, lines 20-21, the phrase ἀ[κ]ρο[τέρια τέτταρ]α has been restored. There is, however, no reason for restoring τέτταρα rather than the more likely ἀκροτέρια.

Professor Dinsmoor has noted that on every year following a political or administrative disturbance the record of the Parthenos was carefully checked.<sup>123</sup> Let us examine the Nikai records to see whether they reveal similar checking. In the year 385/4 B.C. the record for the Nike by ———atides (*J*) shows certain changes.<sup>124</sup> According to restorations proposed by Woodward, she has apparently gained in total weight the insignificant amount of two drachmai, but she has added to her possessions a *περιτραχηλίδιον* as well as *στολίδε δύο* without altering the weight of the second *ῥυμός*; Woodward also argues plausibly for the omission of the wreath.<sup>125</sup> All this was evidently due to the zeal of the newly reconstituted Board of Tamiai of the Goddess. The inscriptions for the year 371/0 (?), 369/8 (?), and 367/6, the first extant after the critical year of 376, give evidence for a net loss in the weight of Nike *J*. The inscription for 371/0 (Woodward, No. 12) shows a loss of 74 drachmai in the fourth *ῥυμός*; that for 367/6 (Woodward, No. 14) shows a loss of 62 drachmai in the second *ῥυμός*; and that for 369/8 (Woodward, No. 13) shows a gain of 32½ drachmai in the fifth *ῥυμός*. Woodward supposes that the decrease in weight “occurred between 385/4 and 374/3, without any of the component parts being removed, resulting in a net loss of over 100 drs. of gold.”<sup>126</sup> As he points out, no item is missing. But a clever thief—and the Greeks were able thieves—never takes all of one object if he can do as well by taking a portion of several items. From the second *ῥυμός* he could pare or cut off bits of hanging drapery (*στολίδς*), from the fourth he could strip the crown of some of its leaves and cut the tips from the wings. We need not, however, assume that he, but rather the Board, was responsible for the restoration to the fifth *ῥυμός*. Very possibly the *ἄκρωτήριον*, easily detachable, was stolen, but it could be most easily restored, possibly from existing dedications, and might weigh slightly more than the original. If these seem fanciful hypotheses, we have only to look at the evidence provided by the last surviving inscription relating to this Nike, dated after 351/0 B.C., some four years later than the speech by Demosthenes. It is damaged,—and tantalizingly damaged. Woodward restores it (No. 16) with startling results. He finds that to fit the letters to the line, he has to omit the *περιτραχηλίδιον*. He finds that in three of the first four *ῥυμοί* deficiencies of weight are specifically recorded by the phrase *τούτοις ἐνδεῖ*, followed by the sum, even if it amounts to only a few obols. Here is a thorough checking and revision. Then, “for some reason,” notes Woodward, “the fifth *ῥυμός* is omitted.” The stone is left ominously blank. It is significant that this *ῥυμός* normally would have contained the *ἄκρωτήριον*, *ὀπίσθιον*, and *σκέλη*. We are driven to the conclusion that the

<sup>123</sup> *A.J.A.*, XXXVIII, 1934, p. 96.

<sup>124</sup> *I.G.*, II<sup>2</sup>, 1407, lines 8-11; cf. Woodward, *H.S.C.P.*, Suppl. I, pp. 380 ff.

<sup>125</sup> *Loc. cit.*

<sup>126</sup> *Ἀρχ.*, 'Εφ., 1937, p. 170, table and note 1. According to *Corpus* restorations in the places affected the net loss is 62½ drachmai: *ibid.*, p. 166, No. 14.



*ἀκρωτήριον* was stolen. Probably large portions of the drapery at the back, the *χρυσίον ὀπίσθιον*, also disappeared. Let us trust that Nike was not left entirely legless, but if Woodward's restorations of the weights are even nearly correct, one entire third of the figure had vanished. Probably the remaining *membra disiecta* were regrouped in four *ῥυμοί* for convenience; the condition of the stone offers almost any opportunity to the ingenious restorer.

Whatever the gruesome details, one fact is clear, that somewhere between 384 and 351 B.C., projecting portions of the Nike *J* disappeared. The history of the other Nike (*M*) that existed in the fourth century, though not so fully preserved, yet follows the same course. Between 371 and 369 B.C., changes also took place in her list; the loss of weight amounts to about 24 drachmai. But, as with the preceding Nike, this loss was accompanied by the acquisition of more objects. A wreath is added: [σ]τέ[φα]νος δν [έν] τῇ χειρὶ ἔχει.<sup>127</sup> The figure seemed also to need further security against pilferers, for in the first and third *ῥυμοί* appear pins, *περόναι*, not previously noted.<sup>128</sup> In 367 B.C. the pins seem to have been dropped from the first and third *ῥυμοί*.<sup>129</sup> If, as Woodward suggests, the restoration of the weights is correct, the total weight has increased to within a drachma of the original amount. Of the inscription of 366 B.C., the last to mention this Nike, not enough survives to add any information.

That thefts, petty and grand, were not confined to the Nikai is clear from the later inscriptions dealing with the check-up in the treasury made under Lykourgos.<sup>130</sup> Here we read of the loss of the fingers from statues of boys or of tail-feathers from the figures of birds. Thus we may conclude that, following the ancient custom of *ἀκρωτηριάζειν* or cutting off the extremities of enemies, the gangsters of the straining days of the fourth century dared even clip the wings of Victory. The appearance of the Nikai, with their ostentatious akroteria, on the Panathenaic vases of 336-321 B.C. must surely reflect public appreciation of Lykourgos' restoration of the famous figures.

## SUMMARY

After examining all this evidence, we should now be in a position to consider each Nike in detail and to sketch her individual history.<sup>131</sup>

In general the figures fall into three groups: those of the fifth century dedicated before 425 B.C., those dedicated after 425, and that one dedicated in the early fourth century. The appearance of the earlier group can only be surmised from the type popular at that period. They probably floated quietly forward in frontal pose, ex-

<sup>127</sup> *I.G.*, II<sup>2</sup>, 1425, line 49.

<sup>128</sup> The restoration π[ερ]ὶ ὀ[πίσθ]ου is not certain; see *loc. cit.*, lines 51 and 54.

<sup>129</sup> *I.G.*, II<sup>2</sup>, *Addenda* 1428, lines 9-21.

<sup>130</sup> *I.G.*, II<sup>2</sup>, 1498 ff.

<sup>131</sup> As the references for each Nike are summarized on pp. 174 ff., they will not be repeated here.

tending an open wreath or fillet, or holding naval emblems in one or possibly both hands.

In the first group we have placed Nikai *A*, *B*, *C*. Since they are merely mentioned in the inscription of 434 B.C., it is impossible to tell whether they are among those that recur on other fragments. For purposes of argument we shall therefore consider the figures mentioned on later stones within the period of the inscription, since we do not know the date of dedication.

On an inscription from the Agora dating from *ca.* 430-425 B.C. an item is listed of which the total weight amounts to two talents (Nike *D*). Since the Nikai are usually grouped together at the head of the treasure-lists, the natural inference would be to suppose that the preceding object was a Nike. The phrase, *κεφάλαιον τούτων* for summing up the total weight is peculiar; the normal and more logical phrase was *κεφάλαιον ταύτης*.<sup>132</sup> To restore the two surviving letters of line 2 in harmony with the other Nike inscriptions, the only possible solution appears to be:

[· περόνα δύ]ο θ[όραχς καὶ ζόνιον σ]  
[ταθ]μὸν ΧΓΗΔΔΔΓΗΗ[Η]

It is strange to find the *θώραξ*, etc., listed at the end. The weight suggested, 1638 drachmai, 3 obols, is very light for these items, considering that the total weight was two talents. But since neither of these objections seems final, we must accept the probability that we have here another Nike (*D*). It is most probable that this Nike is either *A* or *B* of those finished in 434 B.C.

The same stone of about 430/25 B.C. gives us the earliest extant description of a Nike (*E*) that is in any way complete. The total weight is not given. By comparison of group weights, it can be said to be somewhat lighter, and presumably smaller than Nike *J*. The name of the sculptor, Deinokrates, is otherwise unknown, and we cannot even be sure that his work comes before us again. The items are grouped from bottom to top, except for the fact that if the legs and wings are to be included at the end of the inscription, they would have to follow the head and thereby upset the apparent logic of the grouping. It is not impossible, judging from the lightness of the given weights, that the figure was smaller and less ambitious than others, comprising only three *ρῦμοί*. In that case *πόδε* would cover both legs and feet, a Homeric usage. The figure would then have weighed about a talent and a half, or slightly less. That would imply a height of four Greek feet, assuming that the common practice of using round numbers holds.

In 426/5 B.C. Nikai *F* and *G* were dedicated. Of these we have the fragmentary description of the first, *F*. Although the condition of the stone has deterred editors from restorations, a good deal can be deduced from the narrow dimensions, which

<sup>132</sup> Woodward, No. 4, lines 5 and 10; cf. *id.*, No. 3, lines 16-17.

indicate a line of 18 letters.<sup>133</sup> The heading gives the archonship of dedication and magistrates. However ingeniously one may fit in the items, or whatever the order, the fact remains that between the preamble and lines 28-29 is just room for one Nike. But the preamble specifies definitely by the dual that two figures are in question. So far as we know, Nikai were always grouped together on the lists. It follows, therefore, that the letters scattered so teasingly at the bottom of the stone must deal with a Nike. Line 28 cannot be made to fit any common preamble, but certainly suggests the restoration, ἀ]πὸ τ[οῦ δι]ερείσ[ματος, for which no parallel exists. It is difficult to resist the temptation of relating this phrase to the διερείσματα discussed above (p. 188), though just in what significance one would scarcely venture to guess. But to establish the direct relation between the Nikai of Athena and the διερείσματα of the Chalkotheke would add much to our understanding of the latter. However, we cannot continue now to yield to these temptations of restoration.

Woodward dates between 426/5 and 407 B.C. (probably *ca.* 410 B.C.) an inscription (*I.G.*, I<sup>2</sup>, 369) that lists three, probably four Nikai. The last two had their own Board of Epistatai and may be considered as just dedicated. The first two may well have been dedicated earlier.

Of the first Nike that appears on this inscription, *H*, only the letters ἀκροτ]έρι[ον (?) are preserved. The second, *I*, is known also from another inscription (*I.G.*, II<sup>2</sup>, 1502) which gives identical descriptions of the same items. It seems to have been divided into four weighing-groups of approximately three thousand drachmai each, giving a total of one talent, 5987 drachmai, almost precisely that of Kallistratos' Nike. The order of these ῥυμοί is peculiar: the list begins with the legs and records the head in the middle,—the only certain instance of unsystematic weighing among all the inscriptions. We may not go far wrong when we infer from that fact that the Nike was among the oldest of her fellows.

The last Nike on *I.G.*, I<sup>2</sup>, 369, *K*, is by the sculptor Timodemos. This was not a common name. It is interesting therefore to find ΤΙΜΟΔΗΜΟ inscribed on a fine gem which Furtwängler attributes to the fifth century.<sup>134</sup> Since gem-cutting and metal-working were closely allied arts at that period, it is not impossible that the goldsmith made (or owned) the gem. We regret that Pliny does not mention goldsmiths but rather silversmiths,—for Timodemos, Deinokrates, and ———atides must have been three important artists of a distinguished field at the height of its flower.

Nike *K* was dismantled from the head downward. The ῥυμοί were on the average 3000 drachmai in weight, the total not being preserved. In her right hand she held an akroterion, probably the aphlaston; in her left stars, presumably fixed on the naval staff, the stylis. This occasion seems to be her only appearance.

<sup>133</sup> *I.G.*, I<sup>2</sup>, 368.

<sup>134</sup> *Ant. Gem.*, III, p. 136.

One other Nike makes her début on *I.G.*, I<sup>2</sup>, 369, Nike *J*, by the sculptor ---atides.<sup>135</sup> She is mentioned on twelve separate inscriptions. On the fifth-century inscriptions the phrase *Νίκε χρυσῇ ἡν --- ἀτίδες ἐπόσεν* is used; on those dated in the fourth century *Νίκης χρυσῆς* ---. The inscription of 399/8 B.C.<sup>136</sup> is virtually complete and may be taken as the canonical form for the others. It indicates that the figure held a wreath in her right hand and an akroterion in her left. When a new Board was set up in 385/4 B.C., certain items change, but since the weight does not increase, we are driven to supposing that the change is in the description rather than in the Nike.<sup>137</sup> Between the years 385 and 371/0 B.C., presumably under Androtion's administration, slight readjustments were made in the figure itself. As well as a decrease of a little more than 100 drachmai in the total weight, *χρυσίδια μικρά*, or bits of gold, appear in increasing numbers as time goes on. We have been led to surmise that the statue had disintegrated or been deliberately broken. It was "disintegration" which formed the excuse for Androtion's melting down the crowns dedicated in the Parthenon. Demosthenes, sneering that gold crowns could not wither, *ὥσπερ ἴων ἢ ῥόδων ὄντας, ἀλλ' οὐ χρυσίου*,<sup>138</sup> preferred to attribute these losses to deliberate plundering. We have seen, in our discussion of the akroterion, that this Nike may well have been the very one of which Demosthenes spoke in reporting the thefts from the Parthenon.

The largest Nike (*L*) weighed over 2 talents 200 drachmai. She is mentioned on only one inscription.<sup>139</sup> and cannot be identified with any other Nike of which details are preserved. But no doubt she may equal one of those about which nothing is known. The items were listed from the head downward and show no peculiarities.

We find, then, that the number of Nikai mentioned in fifth-century inscriptions reaches a possible maximum total of twelve. But obviously we cannot recognize a Nike unless sufficient details of her appearance are preserved. For instance *A*, *B*, *C* must reappear and we may identify them for the sake of argument with the next available three Nikai of which we have descriptions. Nikai *F* and *G*, dedicated in 426/5 B.C., however, must be new, and *J* and *K*, presumably dedicated *ca.* 410 B.C., again are not to be identified with any preceding pieces. Nike *L*, which weighed over 2 talents, cannot in respect to our previous doubling up be identified with any other. We have, then, a probable minimum of eight Nikai extant before the crisis of 406/5 B.C. Noting that in three cases Nikai are dedicated in pairs, we might expect an even number. It is interesting that this number equals that which has been argued from the seven *διερείσματα* that survived in the fourth century.

<sup>135</sup> Note that the Agora inscription gives the fullest version of this name yet discovered. Hitherto it was restored --- χιδες.

<sup>136</sup> *I.G.*, II<sup>2</sup>, 1388, lines 16-24.

<sup>137</sup> See above, pp. 204 f.

<sup>138</sup> *Timokrates*, 755.

<sup>139</sup> Woodward, No. 4, lines 2-5.

12                    πρὸς τὴν Νίκ[ην οἱ ἐπιστάται]  
                      προσαπέδουσα [ν παραλαβόντες παρὰ]  
                      τῶν προτέρων [ἐπιστατῶν · ]  
 15                    . . . | . ζ σταθμόν.<sup>144</sup>

In the latter part of the fourth century, possibly by Alexander and certainly by Lykourgos, several if not all the original Nikai were re-covered with gold. But they were soon to lose their all to the tyrant, Lachares, and desert the temple of Athena as Victory deserted the Athenian people.

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<sup>144</sup> Woodward, No. 17, from *I.G.*, II<sup>2</sup>, 1421, lines 12-15; for the composition of the stele see Woodward, No. 11. Woodward (No. 17) considers it certain that this entry refers to Nike *M* (dedicated in 374/3) and points out that the "entry is not to be found in any later list."