

pressed in the specimens Do-3708, Do-4434 and Do-4440; the specimen Do-3738-a shows a lateral compression of the left funiculus, too. For this reason the scapes which appeared very thin in dorsal view and too broad in lateral view, in figure 5 (based on specimen Do-4440), have been drawn with a round section as usual for minor workers of *Pheidolini* and as visible in the amber specimen Do-1645-K. The most probable diameter of the round section at different distances from the articulation with the head has been calculated as the average of the minimum and the maximum width measured at the same distance from the cephalic articulation.

Although this is not suggested by asymmetric deformations of the head of the specimen Do-3708, Do-4440 and Do-3738-a, it is likely that the broad range of head lengths I measured (see later the HL values under the species description and the relative figures) may be equally attributable to some pressure exerted on (some of) the specimens. No other body parts of these ants from the Stuttgart collection differ among the specimens or from plausibly related contemporary ants in a way which might suggest that the morphology described in this paper may have been modified by pressure, heat, or other unknown factors.

DLUSSKY (1986) proposes a method, based on transformation grids, to reconstruct the original shape of deformed specimens in amber. This method has been used also in preparing an illustration for this paper (Fig. 5) but it can account reasonably well only for deformations affecting the symmetry.

In addition to this material I have been able to re-examine the Dominican amber sample from the mine La Toca containing the holotype and paratype of *Pheidole tethepa* WILSON and deposited in the Museum of Comparative Zoology in Cambridge, Massachusetts. This has been partly cut and polished again in order to improve examination of the specimens. The holotype appears distorted as shown in the original figure of WILSON (1985 a, Fig. 4). The head of the paratype specimen is badly damaged and the body is partly covered by air bubbles and amber impurities, although the trunk appears in much better shape than in the holotype and is probably not or only very little deformed. Unfortunately, the position of the specimen does not permit cutting away of the amber inclusions and re-polishing without severe damage to the appendages.

All the amber specimens have been observed, measured and drawn in 66% sucrose solution. All photographs, except Fig. 4 B, have been equally taken in sucrose solution. The ant drawings are a product of the talent and the patience of ARMIN CORAY.

The statistical treatment of the data has been performed using the SAS/STAT package (1989) and the program 4F of the BMDP package, Release 7 (DIXON, 1992).

3. Description of new Dominican amber *Pheidole*

Three specimens from the Stuttgart Museum appear to represent a new species of *Pheidole* which I regard as distinct from but very close to *Pheidole tethepa* WILSON. Its description and diagnostic characters will be given below. The specimen Do-3708-a differs greatly from the other two in the shape of the head, and it is much more similar to *Pheidole tethepa* WILSON in this regard, but the remaining morphology and particularly the pronotal spines exclude its attribution to the latter species. Given the great amount of (probably artifact) variability in the cephalic proportions of all the specimens examined in this paper, the description of this ant as a separate species on the base of this sole character would be meaningless.