## KAJ BIRKET-SMITH

# STUDIES IN <br> CIRCUMPACIFIC CULTURE RELATIONS 

IV. The Double-Headed Serpent

Det Kongelige Danske Videnskabernes Selskab Historisk-filosofiske Meddelelser 47, 1


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## I <br> INTRODUCTION

In many parts of the world snakes play important rôles in religion and mythology. Rather widespread is the idea of snakes with a head at either end, not to be confused, of course, with the multi-headed nàgä serpent of Hindu-Buddhist mythology, nor with the feathered and horned snakes in American Indian religions.

The basis for the belief in the existence of double-headed snakes is probably in many cases the tropical and sub-tropical Amphisbaenians, recent saurians with very short, clumsy tails that by superficial observance may easily be mistaken for heads.

## II

## THE DOUBLE-HEADED SERPENT IN AMERICA

In a paper, read at the Americanist Congress in The Hague, 1924, Fritz Röck, speaking on ancient Mexican culture connections with Central and South America ${ }^{1}$, embarked on the idea of the double-headed serpent. After having mentioned the horned snake from the Seneca and a few other tribes in the Great Lakes area of North America, where it is believed to cause deluge, he discussed the notion of double-headed serpents among some North Pacific Indians, in Mexico, Chiriquí, Ecuador, in the old cultures of San Agustín, Chavín, Pachacamac, Tiahuanaco and Calchaquí, adding the Witoto, Oyampí, Yuracare, Mosetene and Araucanians.

Unfortunately, Röck's account seems to be rather uncritical, and it would carry us too far away from our subject, if we were to enter into details. It may be mentioned, however, that the double-headed serpent is not depicted in the art of Ecuador, Chiriquí, San Agustín, Chavín, nor in that of Tiahuanaco and Calchaquí ${ }^{2}$.

Röck arrived at the following conclusion: "Es lass sich also an Hand der Leitform der beidendköpfigen Schlange und mit ihr in Verbindung stehenden mythischen und religiösen Vorstellungen und ihrer Darstellung in der Kunst alte Kulturbeziehungen innerhalb Amerika feststellen, welche nur durch die Prärie- und die Asioux-Stämme unterbrochen, von British Kolumbien und der Nordwestküste Nordamerikas durch Mittelamerika hindurch zu den Araukanern Chiles erstrecken"'3.

A few years after Röck, MacLeod took up the question of the double-headed serpent in America saying: "As regards myth, Röck's monograph on the myth and design of the double-headed snake is of significance. The myth is found on the northwest coast

[^0]of North America, from and including the Tsimshian, southward among the coast tribes to and including the Makah of Washington. We do not meet it again until we reach northern Mexico where it is found among the Huichol, and further south it appears among the Mayas and the Mayan Huastecs..." ${ }^{1}$.

Among the Northwest American culture elements, supposed to be of Central American origin, MacLeod included "mother sibs", weaving and cremation. MacLeod's account of the spread of Central American culture elements ends with a prudent question: "Did any southwestern elements of significance or in any volume pass beyond and direct up to the Alaskan coast? Or did all that reached the coast pass over the now Shoshonean interior and to the Columbia or Frazer Rivers, thence to the coast and thence north to Alaska and south to northern California? Future research will solve the problem'" ${ }^{2}$. As for matrilineal sibs, weaving and cremation I hope that it may suffice to refer to my previous remarks on these subjects ${ }^{3}$.

Among the Tsimshian, however, it is expressly stated that there is no society using a dancing club like a double-headed serpent, as among the Kwakiutl ${ }^{4}$. The Kwakiutl understand the doubleheaded serpent to be a sib assistant and a spirit canoe ${ }^{5}$. It plays an important rôle in Kwakiutl mythology, though exaggerated by Locher ${ }^{6}$. Initiates to the Cannibal Society are said to obtain supernatural powers by being rubbed with blood of the double-headed serpent ${ }^{7}$. The Nootka speak of both double-headed and feathered snakes ${ }^{8}$, the latter being simultaneously lightning. Among the Bellacoola the double-headed salmon and serpent are crests ${ }^{9}$. The double-headed serpent appears in dancing performances among the Coast Salishan Comox ${ }^{10}$. It is not, however, connected with secret societies among the Quinaielt ${ }^{11}$.

[^1]Of the Shuswap in British Columbia it is told: The story of the existence of a kind of rattle-snake with a head at each end is common. To see such a snake is very unlucky and portends the death of some dear friend ${ }^{1}$.

Possibly the double-headed serpent is known also by the Umatilla in Oregon ${ }^{2}$.

Proceeding now from the American Northwest as far south as northern Mexico we are told of the Huichol that they admit the existence of double-headed serpents "zwischen deren offenen Rachen die Sonne hindurch muss, wenn sie im Westen versinkt" ${ }^{3}$. It is there a frequently occurring textile design ${ }^{4}$. Furthermore it is mentioned from the Maya ruins in Yucatán ${ }^{5}$. However, there may here be a confusion with the feathered serpent, Kukulcan or Quetzalcoatl, a god who was introduced by Mexican invaders ${ }^{6}$.

Still farther south both feathered and double-headed snakes occur on the painted Nicoya pottery in Costa Rica ${ }^{7}$, which was likewise influenced by Mexican intruders.

It has been suggested that American pictures of double-headed serpents in stone, pottery, etc., may be related to ancient Chinese notions ${ }^{8}$. Even though the former, as previously mentioned, are extremely problematic, there may be reason for turning to conditions west of the Pacific.
${ }^{1}$ Dawson 1892; 39.
${ }^{2}$ Ray 1942; 255.
${ }^{3}$ Seler 1908; III 387.
${ }^{4}$ Lumholtz 1906; 36.
${ }^{5}$ Seler 1908; 679, 712 ff.
${ }^{6}$ Thompson 1956; 28, 208, 117 ff.
7 Strong in Steward (ed.) 1946-59; IV 126.
${ }^{8}$ Hentze 1966; 259.

## III

## DOUBLE-HEADED SERPENTS WEST OF THE PACIFIC

## 1. Melanesia

Hans Ritter has given an account of the snake in Melanesian religion and totemism, mentioning it from Geelvink Bay, the Kiwai at the Fly River mouth, the D'Entrecasteaux and Louisiade Islands, New Britain, Tabar Island, Buin, southern Bougainville, Owa Raha, etc. ${ }^{1}$. Only a few additions seem appropriate. Double-headed and multicoloured serpents occur in the male cult of the Mountain Arapesh ${ }^{2}$. The Kiwai have notions of a snake-like monster with a mouth and ten pairs of arms at both ends ${ }^{3}$. The Trobriand Islanders speak of flying canoes reminiscent of somewhat similar ideas on the American northwest coast ${ }^{4}$. The double-headed serpent occurs in the mythology of the Baining, who arrange snake dances connected with fertility and the death cult ${ }^{5}$. It is found among the Rambutjo of the Central Solomons, too ${ }^{6}$. On the $A d$ miralty Islands the double-headed serpent is a forest spirit, but speaking of the Sentani Lake Papuans Wirz asserts that it has no connection with esoteric cults in northern New Guinea ${ }^{7}$. On San Cristobal a winged snake is considered centre of the cosmos ${ }^{8}$. At Blanche Bay, New Britain, the population has an idea of giant snakes with human heads, but not two-headed ${ }^{9}$. On the Admiralty Islands the double-headed serpent is thought to be a forest spirit ${ }^{10}$.
${ }^{1}$ Ritter 1945; 8 ff.
${ }^{2}$ Mead 1938-47; I 72.
${ }^{3}$ Ritter 1945; 14 f. Landtman 1917; 190, 215 ff.
${ }^{4}$ Locher 1932; 107. Citing Fox.
${ }^{5}$ Burger 1913; 63f. Laufer 1946-49; passim.
${ }^{6}$ Thurnwald 1912; I 374.
7 Wirz; 344, $1923 ; 344$.
${ }^{8}$ Locher 1932; 107. Citing Fox.
${ }^{9}$ Meier 1908; 1005 ff .
10 Nevermann 1934; 370.

In great parts of Australia the rainbow is considered a snake ${ }^{1}$. Ritter is probably right in finding connections between the Melanesian ideas and corresponding notions in Indonesia ${ }^{2}$.

## 2. Asia

Snakes are common in Indonesian mythology and are often considered gods' incarnations and soul animals and/or associated with ideas of earth, water, death and fertility ${ }^{3}$. On Alor and some other Small Sunda Islands there is a regular snake cult ${ }^{4}$. The rainbow snake is known on Bali and Java on Bali with two or three heads (the principal at colurs of the rainbow? ${ }^{5}$, but on Java the multi-headed nâgâ does not appear till the 14th century, when East Indian influence was strong. Among the Toradja the sight of a double-headed snake is feared as an omen of death ${ }^{7}$. Here the idea of a double-headed snake probably refers to a real animal, i. e. Cylindrophis rufus ${ }^{8}$. From the Ngadju Dayak Schärer pictures a coffin with carvings of a hornbill and a snake, symbolizing cosmic duality ${ }^{9}$. Moreover, representations of two intertwined snakes occur on Sumatra ${ }^{10}$.

On the Asiatic continent notions of the intertwined snakes and the nâgâ serpent are found both in Cambodia and elsewhere in Indochina, too. ${ }^{11}$

In ancient China the benevolent rain dragon, lung, understood as a serpent with two heads, was known in the so-called Yüeh culture ${ }^{12}$. Excavations at Shih-chai-shan not far from K'un-ming in Yünnan show influences, probably including the rain dragon, i. a. from the Yüeh culture, from the Bronze Age Dông-so'n culture in Tonkin and from the Ch'u Kingdom at the Yang-tzŭ, as

[^2]well as the early Han period ${ }^{1}$. The two-headed rainbow snake is seen on a relief dating from A.D. $150^{2}$, while similar creatures are mentioned in the "Yih-ching", a work a few centuries older ${ }^{3}$. In the mythology of Japan, dragons were known before Chinese and Buddhist influences ${ }^{4}$, whereas in Mongolia the double-headed serpent, a snake with a head at each end, appears among the socalled Ordos bronzes ${ }^{5}$.

This agrees with Lommel's statement that it is also known by nomads farther west ${ }^{6}$.

According to personal information from Professor P. J. Riis, double-headed snakes are known from the Minoan and Iranian Bronze Ages, as well as from later periods in Iran and Syria. In historical Greece and in Hellenistic-Roman contexts they are a common arm-ring design. The animal prototypes, if needed, were probably the Amphisbaenians, Typhlops flavescens or vermicalis in Southern Europe or a species of Blanus in southwestern Asia. Somewhat similar representations as those mentioned occur in the late Danish Bronze Age and even in the Iron Age, the designs no doubt transmitted from the South. In Greek literature two-headed snakes are mentioned by Aischylos and Aristophanes.

## 3. Conclusions

It appears from the preceding account that on the American Northwest Coast the double-headed serpent is associated with the secret societies among the Kwakiutl, Nootka, Bellacoola and Comox, but not among the Tsimshian and Quinaielt. This is the case, too, among the Sentani Papuans of New Guinea, but such a negative trait proves nothing of course, nor does the connection of double-headed serpents with the Mountain Arapesh men's cult, which cannot be understood as part of secret society rites, however esoteric the cult may be.

It is highly questionable whether the Kwakiutl view of the double-headed serpent as a spirit canoe and that of the Tro-

[^3]briand Islanders as a flying canoe can be considered to be related. At least neither the Admiralty Islanders' idea of the double-headed serpent as a forest spirit nor the many-armed monster of the Kiwai have parallels in northwestern North America.

Both the Shuswap in British Columbia and the Toradja of Celebes consider the sight of a double-headed serpent to be an omen of death. It is not difficult to understand, perhaps, that such an extraordinary sight as a snake apparently having two heads and in addition living in the ground may be taken as a bad omen, but such a single trait is at any rate too slight a foundation for establishing a hypothesis of cultural relations.

As formerly mentioned, Vatter is probably correct in assuming connections between Melanesian and Indonesian ideas concerning snakes. If the rainbow snake is considered two- or threeheaded on Bali, that may, as I have previously suggested, be a consequence of the various rainbow colours. The two-headed Chinese dragon, harbinger of rain and fertility, is probably a version of the common rainbow snake.

Hentze finds the conception of the rainbow snake widespread in America. That idea is probably erroneous. The only trait in North American mythology faintly reminiscent of a rainbow snake is the Nootkan association of lightning, which is, of course, usually accompanied by rain, with the feathered serpent. The feathered serpent is, however, the same as the Aztec god Quetzalcoatl, who was identified with the evening star, but not with rain, that belonged to the department of the god Tlaloc ${ }^{1}$.

In fact the rainbow snake seems to be almost unknown in America; it is obviously found only among a few primitive tribes in South America. The Ashluslay in the Gran Chaco and the Guayaquí in eastern Paraguay regard the rainbow as a huge and dangerous serpent, while the Mura near Rio Madeira believe it is a serpent through the mouth of which souls enter heaven ${ }^{2}$.

From what has been said of double-headed serpents near the eastern Mediterranean it appears that the notion of such creatures there reaches back to the Bronze Age. This agrees with the Chou Chinese culture, the age of the Ordos bronzes, as well as that of

[^4]the Dông-so'n culture. Possible prototypes of the double-headed serpents in Europe and western Asia are certain amphisbaenians. As previously mentioned, this also applies to the Toradja of Celebes, as well as to the Huichol in Mexico, where amphisbaenians occur in the region of southern Baja, California, in Guerrero and Michoacán ${ }^{1}$, whereas they seem to be quite absent farther north, in Oregon, Washington and in British Columbia.

Bronze was, of course, totally unknown in aboriginal North America. On the other hand, some characteristic elements of north Pacific Indian art show remarkable parallels to Chou Bronze Age art, such as split and nearly disintegrated animals, and the stressing of the eyes, etc. ${ }^{2}$.

Such parallels may possibly suggest historical connections between notions of double-headed serpents in Asia and those of the Kwakiutl and a few other coastal tribes, but certainly not those of the tribes inland.

On the whole we are therefore obliged to admit that the history of double-headed serpents in northwestern America still remains an unsolved problem.

[^5]
## IV <br> BIBLIOGRAPHY

Adriani, N. \& Kruyt, Alb.: De Bare’e Sprekende Toradjas van Midden Celebes. I-III. Koninkl. Nederlandse Akademie v. Wetensch. Afd. Letterk. Amsterdam 1950-51.
Barnett, H. G.: The Coast Salish of British Columbia. Univ. Oregon Stud. Anthropol. IV. Eugene 1955.
Beasley, Walter L.: The Secret Cannibal Society of the Kwakiutl. Scient. American XXIX. New York 1903.
Birket-Smith, Kaj: Studies in Circumpacific Culture Relations. Kgl. Vidensk. Selsk. Hist. Filos. Medd. 45-46. 1971-73.
Boas, Franz: The Social Organization and the Secret Societies of the Kwakiutl Indians. Rep. U.S. Nat. Mus. Washington 1897.

- The Decorative Art of the Indians of the North Pacific Coast of America. Amer. Mus. Natur. Hist. Bull. IX. New York 1897b.
- Kwakiutl Culture as Reflected in Mythology. Amer. Folk-Lore Soc. Mem. XXVIII. New York 1935.
Burger, Fr.: Die Küsten- und Bergvölker der Gazellehalbinsel. Stuttgart 1913.
Dawson, George M.: Notes on the Shuswap People of British Columbia. R. Soc. Canada Transact. IX. Montreal 1892.
de Visser, M. W.: The Dragon in China and Japan. Koninkl. Akad. v. Wetensch. Verhand. Afd. Letterk. N. Reeks III, 2. Amsterdam 1913.
Drucker, Ph.: The Northern and Central Nootkan Tribes. Bur. Amer. Ethnol. Bull. 144. Washington 1951.
Eberhard, Wolfram: Lokalkulturen in alten China. II. Die Lokalkulturen des Südens und Ostens Monumenta Serica. Monogr. II. Peking 1942.

Fox, C. E.: The Threshold of the Pacific. London 1924.
Gans, Carl: A Check List of Recent Amphisbaenians, (Amphisbaenia, Reptilia). Amer. Mus. Natur. Hist. Publicat. CXXXV, 2. New York 1967.

Garfield, Viola E.: Tsimshian Clan and Moiety. Univ. Washingt. ViI, 3. Seattle 1939.

Haskins, John F.: Cache at Stone Fortress-Hill. Natural History. LXXII. New York 1963.

Hentze, Carl: Objects rituels croyances et dieux de la Chine antique et de l'Amérique. Anvers 1936.

- Die Regenbogenschlange in Alt-China und Alt-Amerika. Anthropos. LXI. Freiburg 1966.

Kaudern, W.: Ethnographical Studies in Celebes. VI. Göteborg 1944.
Kruyt, A. C.: Leven en sterven in de Balantak oostarn van Celebes. Tijdschr. v. Indische Taal- Land- en Volkenk. XXIII. Batavia \& 's Hage 1933.

- see Adriani.

Landtman, Gunnar: The Kiwai Papuans of British New Guinea. London 1927.

Laufer, Carl: Jugendinitiationen und Sakraltänze der Baining. Anthropos LIV. Freiburg 1959.
Locher, G. W.: The Serpent in Kwakiutl Religion. Leiden 1932.
Lommel, Andreas: Schlange und Drache in Hinterindien und Indonesien. Gräfenhainichen 1939.
Lumholtz, Carl: Huichol-indianernes ornamentik. Videnskaps-selsk. Skrifter. I, 1. Christiania 1906.
Löwenstein, John: Rainbow and Serpent. Anthropos LVI. Freiburg 1961.

MacIlwraith: The Bella Coola Indians. I-II. Toronto 1948.
MacLeod, William Christie: On the Diffusion of Central American Culture to Coastal British Columbia and Alaska. Anthropos XXIV. Mödling 1929.
Mead, M.: The Mountain Arapesh. Amer. Mus. Natural Hist. Anthrop. Papers. XXVI, XL. New York 1938-47.
Means, Ph. A.: Ancient Civilizations of the Andes. London 1931.
Meier, Josef: A Kaja oder der Schlangenaberglaube bei den Eingeborenen der Blanchebucht (Neupommern). Anthropos III. Wien 1908.
Müller, Werner: Weltbild und Kunst der Kwakiutl-Indianer. Stud. z. Kulturk. CV. Wiesbaden 1955.
Nevermann, Hans: Admiralitäts Inseln. Ergebn. d. Südsee-Exped. 1908-10. II 3. Hamburg 1934.
Olson, R. L.: The Quinault Indians. Univ. Washington Publ. Anthrop. VI, 1. Seattle 1936.
Pleyte, C. M.: Die Schlange im Volksglauben der Indonesier. Globus LXV. Braunschweig 1894.

Radcliffe-Brown, A.: The Rainbow-Serpent Myth of Australia. R. Anthrop. Inst. Journ. LXI. London 1926.
Ritter, Hans: Die Schlange in der Religion der Melanesier. Acta Tropica. Suppl. 3. Basel 1945.
Röск, Fritz: Altmexikanische Kulturbeziehungen zwischen Nord-, Mittelund Südamerika. Proceed. 21. Internat. Congr. Americanists. 1. Part. The Hague 1924.
Schärer, H.: Die Gottesidee der Ngadju-Dajak in Süd-Borneo. Leiden 1946.

Seler, Eduard: Gesammelte Abhandlungen zur amerikanischen Sprachund Alterthumskunde. III. Berlin 1908.
Steward, H. (ed.): Handbook of South American Indians. I-ViI. Bur. Amer. Ethnol. Bull. 43. Washington 1946-59.
Stöнr, Waldemar: Das Totenritual der Dajak. Ethnologica N. F. I. Köln 1959.
Thompson, Eric S.: The Rise and Fall of Maya Civilization. London 1956. Thurnwald, R.: Forschungen auf den Salomon-Inseln und dem Bis-marck-Archipel. III. Berlin 1912.
Vaillant, George C.: The Aztecs of Mexico. Garden City. 1948.
Vatter, E.: Schlangendrache und verwandte Darstellungen in Indonesien, Asien und Europa. IPEK 1934. Leipzig 1935.
Wirz, P.: Dies und Jenes über die Sentanier und die Geheimkulte im Norden von Neuguinea. Tijdschr. v. Indische Taal-, Land- en Volkenk. XIII. Batavia \& 's Hage 1923.

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## List of Abbreviations

Albizzati - C. Albizzati, Vasi antichi dipinti del Vaticano.
Amyx - D. A. Amyx, A Pontic Oinochoe in Seattle, Hommages à Albert Grenier (Collection Latomus vol. LVIII), 1962, p. 121 ff.
Andrén Arch. Ter. - A. Andrén, Architectural Terracottas from Etrus-co-Italic Temples (Skrifter utgivna av Svenska Institutet i Rom VI), 1940.

Baur - Paul V. C. Baur, Centaurs in Ancient Art, 1912.
Beazley EVP - J. D. Beazley, Etruscan Vase-Painting, 1947.
Boehlau, Nekropolen - J. Boehlau, Aus jonischen und italischen Nekropolen, 1898.
Dohrn - T. Dohrn, Die schwarzfigurigen etruskischen Vasen aus der zweiten Hälfte des sechsten Jahrhunderts, 1937.
Ducati - P. Ducati, Pontische Vasen, 1932.
F.R. - A. Furtwängler - K. Reichhold, Grieschische Vasenmalerei IIII, 1904-1932.
Hampe - Simon - R. Hampe - E. Simon, Griechische Sagen in der frühen etruskischen Kunst, 1964.
Helbig, Führer - W. Helbig, Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom.
Hemelrijk - J. M. Hemelrijk, De Caeretaanse Hydriae, 1956.
Jacobsthal, Ornament - P. Jacobsthal, Ornamente griechischer Vasen, 1927.

Langlotz - E. Langlotz, Griechische Vasen in Würzburg, 1932.
Langlotz, Zur Zeitbestimmung - E. Langlotz, Zur Zeitbestimmung der strengrotfigurigen Vasenmalerei und der gleichzeitigen Plastik, 1920. Mingazzini - P. Mingazzini, Vasi della Collezione Castellani I, 1930.
Payne - H. Payne, Necrocorinthia, 1931.
Sieveking - Hackl - J. Sieveking - R. Hackl, Die königliche Vasensammlung zu München, 1912.

The titles of periodicals are abbreviated according to the list of abbreviations in Archäologische Bibliographie des deutschen archäologischen Instituts.

## The Paris Painter - an Etruscan Vase-Painter

Since Dohrn wrote his paper on Etruscan black-figured vasepainting ${ }^{1}$, in which he made an attempt to divide the group of Pontic vases into the works of four different vase-painters and their workshops ${ }^{2}$, a whole series of new vases have been added to this group ${ }^{2 a}$. Many of these have been ascribed to specific masters on the basis of Dohrn's classification which is generally accepted ${ }^{3}$. Amyx, however, in his publication of an oinochoe in Seattle, expresses certain doubts about some of the attributions to the Paris Painter ${ }^{4}$. Dohrn's work is mainly concerned with master attributions and the subsequent literature on this group of vases comprises either short summaries ${ }^{5}$, or publications of single vases ${ }^{6}$.

This is the background for the following attempt to give a more exact description of the most significant of the Pontic vase-painters, the Paris Painter ${ }^{7}$.

The name-piece of the Paris Painter is, as is well known, the amphora in Munich 837 (cat. no. 1) also taken by Dohrn as his starting point. On the belly of the vase there is an animal frieze with lions, panthers, griffins, and sirens. Apart from this there are oxen, a dog, and a bird in the figure frieze, so that there is, all in all, a representative selection of animals from which it is possible to isolate certain basic characteristic features. One must emphasize the incision on the front legs of the animals (fig. 1), the front part of the lions' manes which are divided in two and covered by added white paint (fig. 2), and the facial drawing of the panthers (fig. 3). Further there is a three- or four-stroke zigzag at the knee joint on the hind legs of the animals, at times with a curved line in front (fig. 4). The shoulder is indicated by a kind of double arch (fig. 5), its termination on the back corresponds to a similar arch on the hind quarters. Nearly all the animals have a white belly delimited by incision. The necks of the oxen are covered by coloured stripes. Similar stripes in red are used for rendering the ribs and the muscles on the hind quarters of the


Figs. 1-5 and 7.
animals. The heads of the oxen are separated from the neck, and the horns from the head by hatching, while the muzzles are delineated by an S-shaped line (fig. 6). The eye surroundings of the oxen and lions are suggested by short strokes (figs. 2 and 6). On the hind legs are often seen a pair of short curved strokes. The drawing of the paw consists of a curved or crooked incision.

Detail by detail these traits are found on the animals on a whole series of vases:

Amphorae: Würzburg 778 (cat. no. 2), Vatican 231 (cat. no. 3) ${ }^{8}$, Musei Capitolini 95 and 91 (cat. nos. 4 and 5), Münzen und Medaillen XVIII, 141 (cat. no. 6), Ars Antiqua III, 113 (cat. no. 7), Münzen und Medaillen XXII, 192 (cat. no. 8), Metropolitan Museum 55.11.1 (cat. no. 9), and 55.7 (cat. no. 10), Orvieto 2665 (cat. no. 31), Louvre E 704 (cat. no. 29), British Museum B 57 (cat. no. 11), Napoli, Heydemann no. 6488 (cat. no. 25) Rome Market (cat. no. 26), Tarquinia 529 and RC 1051 (cat. nos. 13 and 14), Villa Giulia (cat. no. 16), Oxford 1961.529 (cat. no. 17), Hei-


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Fig. 6.
delberg 59/5 (cat. no. 18), Bibliothèque Nationale 172 (cat. no. 19), Cambridge G 43 (cat. no. 20), Berlin F 1675 (cat. no. 21), Cerveteri (cat. no. 22). On cat. nos. 14 and 16-22 the choice of and animals consists merely of horses' or centaurs' bodies, but they do, however, show a sufficient number of the above-mentioned details to make the attribution certain.

Oinochoai: Seattle Cs 20.26 (cat. no. 24) ${ }^{9}$, British Museum B 54 (cat. no. 23) ${ }^{10}$ and Boulogne-sur-Mer 158 (cat. no. 39) ${ }^{11}$.

Nikosthenic amphora: Berlin F 1885 (cat. no. 37).
Plate: Bibliothèque Nationale 187 (cat. no. 38).
Stemmed kyathos: Victoria and Albert Museum 66740 (cat. no. 27).
Though it is above all in the drawing of animals that the Paris Painter clings to traits once devised, there are also many standard features in the rendering of human beings and objects. Men and centaurs have a characteristic facial profile with a long, often


Figs. 8 a-b.
drooping nose. The eyes of both men and women are almondshaped. At the wrist and elbow there is often a small incised semicircle. The calf muscle is rendered by a curved incision, and the ankle by a hook. The knee is shaped as in fig. 8 a or $\mathrm{b}^{12}$. The femoral muscle is often rendered by a curved incision parallel to the back contour of the leg. On an amphora in the Ny Carlsberg Glyptotek (cat. no. 28), the men once more show the characteristic profile. They are shown walking in a procession, in the same manner as on the Musei Capitolini 95 (cat. no. 4). On both vases the men are dressed in cloaks that cover one arm, the contour of which is rendered by incision. The cloaks have a border along the bottom edge and cling to the body at the back, while hanging more loosely in front. All carry kerykeia or other rods in one hand while they stretch the other forward. Similar cloak (and chiton) clad men in a procession were seen on Orvieto 2665 (cat. no. 31). Priam on Munich 837 (cat. no. 1) belongs to the same
race of walking gentlemen. Furthermore he is a brother of the old men on Metropolitan Museum 55.7 (cat. no. 10) and Louvre E 704 (cat. no. 29) with his white beard and hair. On Würzburg 778 (cat. no. 2), Metropolitan Museum 55.11.1 (cat. no. 9), and 55.7 (cat. no. 10), Berlin F 1675 (cat. no. 21), and the Cerveteri amphora (cat. no. 22), a row of centaurs are seen walking along in a similar way. Instead of holding rods they all carry a tree over their shoulders, the root of which is split in two or three ${ }^{13}$, while they stretch the other hand forward like the walking men. Athena, Aphrodite and Paris in Munich 837 (cat. no. 1) have their hair divided into single wavy strands turned up at the tips. A similar hair style can be seen worn by the men on Bibliothèque Nationale 172 (cat. no. 19) and the giant on Cambridge G 43 (cat. no. 20). The warriors on an amphora in the Danish National Museum (cat. no. 12) are like brothers of the warriors on the two former vases. Furthermore, on the animals in the belly frieze ${ }^{14}$ appear some of the already enumerated characteristic details, some, however, rather weakened. On British Museum B 57 (cat. no. 11) there are, on the figure frieze, cauldrons with snake protomes like those on Bibliothèque Nationale 172 (cat. no. 19). The chariots on Heidelberg 59/5 (cat. no. 18) and the Villa Giulia amphora (cat. no. 16) are nearly identical, while the warrior on the latter looks very much like the warrior on the A-side of Louvre E 704 (cat. no. 29).

Physiognomy, hair styles and anatomical details make it clear that also Orvieto 463 (cat. no. 30) Vienna 3952 (cat. no. 32) and the imperfectly preserved amphora in Villa Giulia, Castellani 412 (cat. no. 33) ${ }^{15}$ are works by the Paris Painter.

The Paris Painter has a taste for vegetation in his compositions, in animal friezes as well as in figure friezes. His favourite is a straight stem with pointed leaves ${ }^{16}$, but many other types are found, for instance on Heidelberg 59/5 (cat. no. 18), Metropolitan Museum 55.7 (cat. no. 10) and Louvre E 704 (cat. no. 29).

The ornamentation on the vases mentioned above is very varied, in motifs as well as in the execution of these. Most frequent are motifs incorporating lotus and palmette. The lotus blossom is found in three main versions: type 1 has a square floral receptacle with all the petals growing out of it ${ }^{17}$. In type 2 the floral receptacle is rounded and only the two outer petals are attached to it, whereas the petal (or petals) in the middle "floats" over it and has a rounded edge below. In this type the floral receptacle is
divided into two by incision ${ }^{18}$. On the Villa Giulia amphora (cat. no. 16) there is a wholly dissolved version of type 2 , the floral receptacle having literally disappeared. Anomalous are cat. nos. 25 and 26 where the blossom has also disintegrated, but where the outer petals suggest a square receptacle. Type 3 is a hybrid where the receptacle is more rounded than in type 1 and where all the petals are attached to $\mathrm{it}^{19}$.

The palmettes can likewise be divided into three types: 1. a solid type, which has a receptacle and where the single leaves are only indicated by incision. The incisions can be drawn right down to the bottom or only a little way down, and the points of the leaves can be provided with little knobs, so that the palmette seems hairy ${ }^{20}$. Type 2 is likewise solid, but lacks the receptacle, while the incisions are drawn all the way through more like a kind of striping ${ }^{21}$. Type 3 consists of single leaves ${ }^{22}$.

Outside these groups of lotuses and palmettes stand the very detailed and elaborate lotus-palmette ornaments flanked by cocks on Münzen und Medaillen XVIII, 141 (cat. no. 6) and Musei Capitolini 91 (cat. no. 5).

Under the handles is often placed a special palmette motif combined with volutes and usually a lotus ${ }^{23}$. This handle ornament can also be turned $90^{\circ}$ and used as a frieze ornament ${ }^{24}$.

A very popular frieze ornament is a band of ivy, often with leaves alternating in red and black and with white spots where the leaves are fastened to the stem. The motif can be completely stylized ${ }^{25}$ or more naturalistic ${ }^{26}$, for instance with an incised line through the middle of every leaf (Berlin F 1675 cat. no. 21) or an extra, small leaf growing out of every leaf (Orvieto 463, cat. no. 30 ).

The star meander is used on several of the vases. On Munich 837 (cat. no. 1) it is seen on the neck as well as on the belly. Single rows of the same motif are seen on Orvieto 463 (cat. no. 30 ), and British Museum B 54 (cat. no. 23). Variations of this ornament are seen on Metropolitan Museum 55.11 .1 (cat. no. 9) where the star is placed on top of a rosette and in Vatican 231 (cat. no. 3) where half of the points of the stars have been turned into lilies.

The net pattern appears in a quite simple version with only a dot over the joints of the meshes ${ }^{27}$ or adorned by a cross in the interstices ${ }^{28}$.

The tongue pattern with alternating black and red tongues bordered in white, and often with white dots in the angles between the tips of the tongues, is frequently used on the neck or upper part of the shoulder ${ }^{29}$.

Other ornamental bands which appear only once in a while are guilloche ${ }^{30}$, band of pomegranates ${ }^{31}$, step ornament ${ }^{32}$, band of leaves ${ }^{33}$, hour glass ${ }^{34}$, and flower garland ${ }^{35}$.

After this study of the Paris Painter's animals, men, and ornaments, it is apparent that an unpublished amphora in Tarquinia (cat. no. 15), which has a representation of a silen between two lions in either shoulder field, must be a work by this master, though many of the anatomical details on the lions are anomalous. For instance the incision on the front legs has disintegrated into several smaller strokes, more like the way it is seen in the works of the Tityos Painter and the shoulder line is rendered by hatching. This frequent use of short strokes is, however, also seen in the Nikosthenic amphora Berlin F 1885 (cat. no. 37). The ivy band on the neck of the amphora also has leaves of a shape not otherwise found in the Paris Painter's works. The style of drawing on this vase is very elaborate, not least in the lotus-palmette frieze on the belly.

On the present showing two other vases can be ascribed to the Paris Painter, i.e. the two hydriai Louvre E 695 (cat. no. 35) and Dresden 135 (cat. no. 36) which Payne ${ }^{37}$ enumerated among the late Corinthian vases. The drawing of the cocks and the lotuspalmette motif is an exact counterpart to that of Münzen und Medaillen XVIII, 141 (cat. no. 6) and Musei Capitolini 91 (cat. no. 5). The sirens on Louvre E 695 (cat. no. 35) have a facial drawing close, for instance, to that of the three goddesses on Munich 837 (cat. no. 1), whilst the sirens on Dresden 135 (cat. no. 36 ), with their large pointed noses, resemble the four women on Metropolitan Museum 55.7 (cat. no. 10). In form as well as in content there is, naturally, a deliberate copying of the late Corinthian style.

## The Structure of Decoration

Amphorae: all have a black foot and a ring of rays around the lower part of the belly ${ }^{39}$. A persistent feature is also the black handles and a vertical black panel under either handle, from the
lip to the lower edge of the shoulder frieze. Moreover the amphora is divided into zones by one or more lines. The lip is generally black, but can be found with an ornamental decoration, a net pattern ${ }^{40}$, a step pattern ${ }^{41}$, or a band of leaves ${ }^{42}$. Either side of the neck usually makes up an ornamental entity ${ }^{43}$, with the same decoration on both sides. Favourite motifs are two panthers with one common head ${ }^{44}$, a double lotus-palmette garland ${ }^{45}$, and a band of ivy ${ }^{46}$. On Bibliothèque Nationale 172 (cat. no. 19) and Cambridge G 43 (cat. no. 20) a procession of three partridges is found on either side of the neck, while Würzburg 778 (cat. no. 2) has a procession of three naked men with birds between them. Of more unusual motifs must be mentioned a basket with myrtle branches ${ }^{47}$, two cocks flanking a lotus-palmette motif ${ }^{48}$, a guilloche ${ }^{49}$, and a star meander ${ }^{50}$.

The main decoration, normally a figure scene, is placed on the shoulder. A few vases have a narrow row of tongues above this scene ${ }^{51}$. The scenes can be the same on both sides of the vase, or two different ${ }^{52}$.

The number of zones on the belly is normally two ${ }^{53}$. In 17 out of 30 amphorae one of the two zones is decorated with an animal frieze used either as the upper or lower belly frieze. The animal frieze proper contains several kinds of animals, most common are lions, panthers, griffins, and sphinxes. Less common are deer, oxen, wild boars, and sirens, while Acheloos, goat, and hound are only seen once or twice ${ }^{54}$. The animals walk along in a row, but variations like sitting or antithetically placed animals can occur. In one variation of the animal frieze there is only one kind of animal ${ }^{55}$. On Metropolitan Museum 55.7 (cat. no. 10) and Danish National Museum 14066 (cat. no. 12) the animal frieze consists of a herd of cattle tended by shepherds. On British Museum B 57 (cat. no. 11) there are two animal friezes on the belly, above a row of partridges and below an "ordinary" animal frieze.

The other belly frieze ${ }^{56}$ is adorned by one of the ornaments mentioned above.

As mentioned in the discussion of ornamentation, there is a special decoration under the handles usually in the form of a volute-palmette ornament ${ }^{57}$. If there is an animal frieze on the upper part of the belly the handle ornament can be flanked by two animals. On Vatican 231 (cat. no. 3), where the handle orna-
ment is placed in the star meander, there are two antithetical animals underneath in the animal frieze.

Of the other vase shapes so few examples have survived that it is impossible to decide whether their form of decoration was as established as is the case with the amphorae.

As is apparent from the above, I have omitted a number of Dohrn's attributions; these belong to two different groups. One consists of small vases such as cups and ointment jars, where the decoration, in my opinion, is too sparse to make any master attribution certain. These are: Berlin F $2111^{58}$, Würzburg 790 and $787^{59}$, Berlin F $1687^{60}$ and Toronto $210^{61}$. The one-handled cup, Munich 971 , with running dogs could be a work by the Paris Painter, the dogs looking very much like those on the Seattle oinochoe (cat. no. 24) and the plate, Bibliothèque Nationale 187 (cat. no. 38). The plate in Stettin ${ }^{63}$ I know of only from the illustration in Boehlau's book ${ }^{64}$, hence I find it impossible to name the master. The cup, Munich $938^{64}$, with an animal frieze definitely shows some details reminiscent of the Paris Painter, but others seem to show that it is more likely a work of the TritonAmphiaraos Painter; these are the weakened rendering of the front leg incision and the large shoulder blade with incision right round it ${ }^{66}$. The lion's head has no likeness to the Paris Painter's usual rendering. The drawing of the shoulder blade of the hippocamp is exactly like that of the panther in the animal frieze on the Amphiaraos amphora, Munich $838^{67}$, while the drawing of the face of the panther more resembles that of the panther attacking an ox on the same amphora ${ }^{68}$.

More important is the question of the affiliation of the following vases: Louvre E $703^{69}$ (Pl. 29), Munich 839, 841, 840 and $924^{70}$, plus an oinochoe in Akademisches Kunstmuseum in Bonn ${ }^{71}$ (Pl. 26). A comparison of these six vases with the works of the Paris Painter gives no grounds for ascribing them to this painter. The amphora Würzburg $779^{72}$ ( Pl .17 and 30 ), however, seems to be the missing link between the two groups. On the shoulder it has dancing silens (Pl. 17) who are strongly reminiscent of those on Louvre E 703 (Pl. 29) and Munich 841, while both the animal frieze and the ornamental frieze have a pronounced likeness to the works of the Paris Painter. This, however, is only an apparent
likeness. A closer examination of the animals shows a long series of divergences from the rendering of details normal in the Paris Painter's works. The incision on the front leg is missing or rendered in a very diluted fashion ${ }^{73}$. The drawing of the knee joint on the hind legs differs, being more like a diminished version of the front leg drawing of the Paris Painter. The shoulder arch, which is less pronounced than in works by the Paris Painter, does not correspond to an arch on the hindquarters. The animals have two parallel, slightly curved horizontal lines on the hind legs instead of the one or two arches often used by the Paris Painter in this place ${ }^{74}$. The drawing of the panther's face, especially the ear and the forehead, is dissimilar and the drawing of the paw also differs from what is normal in the Paris Painter's works. The neck of the ox is not striped, but plain red, and the tail has a row of twists in the tuft. That this is not a work by the Paris Painter appears even more clearly from the shoulder motif with dancing silens. Their profiles with the thick round nose are thoroughly alien to the Paris Painter. The only remaining work of his with silens seen in profile is the hydria in Fiesole (cat. no. 34). The two silens on this vase have heads like many of his centaurs and entirely different from the silens on Würzburg 779. Moreover none of the latter silens have a hatching of the tail as always seen on the horses and centaurs, plus the two Fiesole silens, by the Paris Painter. Completely inconsistent with his style is also the pronounced uniformity of all eight silens; even the two on the Fiesole hydria are rather different from each other (cat. no. 34). Only the white animal hides, in which two of the silens are dressed, recall the Paris Painter ${ }^{75}$.

Closest to the manner of the Paris Painter are the ornaments on the vase. The upper belly frieze much resembles the corresponding frieze on Metropolitan Museum 55.7 (cat. no. 10) and Tarquinia 529 (cat. no. 13), but with such a variation that it is evidently an imitation. For instance, all the lotus flowers on Würzburg 779 are drawn with more curved outer petals than is the case on the two vases by the Paris Painter. The ornamentation on the neck is not known in the remaining works of the Paris Painter, whereas the net pattern and the volute-palmette ornament under the handles are well known ${ }^{76}$.

It is clearly evident that Würzburg 779 was made by a painter
in close contact with the Paris Painter, most likely an apprentice in his workshop. This painter must be the author of the five vases mentioned above ${ }^{77}$, probably also of the oinochoe in Bonn ${ }^{78}$ ( Pl . 26), which, however, stands a little farther apart. Other works by this painter which Dohrn enumerates among the Paris Painter's works are Munich $923^{79}$ and Bruxelles R $223^{80}$ ( $\mathrm{Pl} .31-32$ ). A dinos in the Victoria and Albert Museum ${ }^{81}$ and the oinochoe British Museum B $56^{82}$ (Pl. 33) which Dohrn ascribed to the Paris Painter's workshop are related to this painter's works ${ }^{83}$.

## Figure Scenes

One of the Paris Painter's favourite motifs for filling out the shoulder zones is a procession of walking men or centaurs. Men appear on Musei Capitolini 95 (cat. no. 4), Ny Carlsberg Glyptotek H 146 a (cat. no. 28), and Orvieto 2665 (cat. no. 31). On the two former vases they walk towards the left on both sides, on the latter they walk towards the left on one side and towards the right on the other. It is probably impossible to ascertain whether a certain subject was the basis for this motif. This could be the case in Orvieto 2665 (cat. no. 31) where a procession of walking bearded men carrying kerykeia ${ }^{84}$ seems to meet a procession of young men armed with spears and led by a bearded man with a kerykeion. It is evident that the Paris Painter makes a point of varying the somewhat monotonous motif, for instance the rods differ, some of the men are bearded, some are not, the shape and colour of beard and hair is varied, and also the colour of the clothes. On Orvieto 2665 (cat. no. 31) every other young man wears a hat, while the bare-headed ones turn their heads over their shoulders. On the neck of Würzburg 778 (cat. no. 2) appears a variation of the procession with three naked men on either side.

A procession of centaurs is found on Würzburg 778 (cat. no. 2), Metropolitan Museum 55.11.1 (cat. no. 9), Berlin F 1675 (cat. no. 21), and the Cerveteri amphora (cat. no. 22). In the same way as the men they carry an object in one hand, in this case a tree, and stretch out the other hand. Again it is evident that the painter tries to vary the details ${ }^{85}$. His centaurs can be very human with only a horse's body attached to the back, or they can be horses
from the waist and downwards, they can have human or horse's ears and finally hair and beard can be infinitely varied in the same way as on the men. On Würzburg 778 (cat. no. 2) only a part of the last centaur is visible as if he came out of the dark handle zone.

In motif the shoulder field in Musei Capitolini 91 (cat. no. 5) recalls these walking processions, but here there are rows of running women on the one side and mermen on the other.

Related to the procession is another of the Paris Painter's favourite motifs, horsemen. They are seen on Vatican 231 (cat. no. 3), Ars Antiqua III, 113 (cat. no. 7), Münzen und Medaillen XXII, 192 (cat. no. 8), Oxford 1961. 529 (cat. no. 17), the Seattle oinochoe (cat. no. 24), and Boulogne 158 (cat. no. 39). On Oxford 1961.529 (cat. no. 17) they ride at a walking pace and lead a second horse by the bridle. In the empty space behind the horsemen there are flying birds of prey. In the other representations they tear away at a gallop and dogs run in the empty field under the horses' bellies ${ }^{86}$. In all representations, except that on the Vatican amphora (cat. no. 3), the horsemen wear short chitons and hold a branch in one hand ${ }^{87}$. Their hair flows behind them in the wind. On the Vatican amphora (cat. no. 3) the motif of horsemen is used in the representation of a combat between riding warriors in hoplite-armour and archers ${ }^{88}$. In all these scenes the horsemen ride towards the left.

To the group of motifs with single figures moving in the same direction ${ }^{89}$ also belongs the drawing on Tarquinia 529 (cat. no. 13). In both fields the same elements are used: triton, hippocamp, and two dolphins, but the painter has once more taken pains to vary the two fields.

The comast motif is seen on two amphorae Vienna 3952 (cat. no. 32) and Orvieto 463 (cat. no. 30). On the latter the execution of the motif is related to the procession motif in that there are four dancers in a row on either side, all moving in the same manner. On the one side the dancers are elderly bearded men with white animal hides around their bellies. Between them are various vessels. On the other side there are young men with hides tied around their backs dancing more vigorously than the older men. On Vienna 3952 (cat. no. 32) the motif is more varied, the dan-
cers turn this way and that and all make different movements. On one side a snake appears in the corner.

The Paris Painter also masters more action-packed motifs. Best known among his mythological motifs is the judgment of Paris on Munich 837 (cat. no. 1). On one side the procession motif is used, Hermes leading the three goddesses forward, while in front of him walks an elderly bearded man also carrying a kerykeion ${ }^{90}$. On the other side stands Paris receiving the procession, while his dog watches over the oxen. The representation differs from the Greek representations we know from the 6th century ${ }^{91}$ in being spread over both sides of the vase and in Paris being surrounded by his herd. Similarly the old man in front of Hermes is unknown in Greek representations. No earlier Etruscan picture of the myth seems to exist.

On one side of Bibliothèque Nationale 172 (cat. no. 19) appears a representation of Theseus fighting the Minotaur. It is the variation which Brommer ${ }^{92}$ defines as "Minotaurus aufs Knie gezwungen, Körper von Theseus abgewandt"'. Behind this representation obviously lie Attic scenes where Theseus likewise grabs the Minotaur by the horn with one hand, while he wields the sword with the other. Nevertheless, both the fitting of the group into the whole and the subordinate characters diverge from normal Attic use, where the group of Theseus and Minotaur ${ }^{93}$ is always placed in the centre of the picture flanked by two or more persons. Here the group has been moved out to fill most of the left-hand side of the picture field, correspondingly there are two subordinate characters on the right-hand side. One of these is an elderly man -which is quite unusual. Also the attributes carried by the subordinate persons are unusual according to Attic practice. The young man carries a kerykeion while the older man has a rod and a hare. Also the Paris Painter's own invention are the cauldron and the cuirass with snakes. An Etruscan representation of the the theme, which might possibly be older than the Paris Painter's, is seen on the Poledrara hydria from Vulci ${ }^{94}$. Here we once more find the bird flying over the Minotaur; but, apart from this feature, the Paris Painter's representation has much greater likeness to the Attic form of the subject than to this representation.

On British Museum B 57 (cat. no. 11) there is on the one side a picture of Heracles dressed in a lion-skin armed with a sword
and club fighting Juno Sospita ${ }^{95}$. Behind Heracles stands a woman and behind Juno a man with a trident or sceptre ${ }^{96}$, who has been identified with Poseidon or Jupiter. It is probably better to let the question of identification of the two subordinate persons stand open. A juxtaposition of Heracles and Hera in combat, as well as in more peaceful ventures, is well known in Etruscan art. P. Zancani-Montuoro ${ }^{97}$ has shown that the origin of the frequent juxtaposition of Heracles and Hera in Italic and Etruscan art seems to be Heracles' defence of the goddess when she is attacked by silens. The defenceless Hera is gradually replaced by the martial Juno Sospita, who fights the silens on equal terms with Heracles. Zancani-Montuoro follows the development of the motif in decorative bronzes, and considers the helmet attache in the Bibliothèque Nationale in Paris ${ }^{98}$, where the two comrades-inarms have turned against each other, to be the last link in the chain. The author seems to believe that this is a purely decorative development without any mythical background, but the more detailed treatment by the Paris Painter seems to show that this confrontation is based upon a myth ${ }^{99}$.

There is an evident parallelism between the two shoulder scenes on the Cambridge amphora (cat. no. 20). On either side two hoplites attack a monster ${ }^{100}$ which defends itself by wielding a stone. Baur mentions ${ }^{101}$ that there exists no Attic representation of a centauromachy where the figures are grouped as here. It seems to be the Thessalian centauromachy ${ }^{102}$, but as the giant on the other side is possibly Alkyoneus ${ }^{103}$ it could be that Heracles' centaur fight is the source.

On the amphora in the Danish National Museum (cat. no. 12) there are combat motifs in both shoulder fields. On the A-side there is a falling warrior in the middle attacked from both sides. The figure attacking from behind, dressed in a long chiton and peaked shoes, must undoubtedly be a woman which makes it a reasonable assumption that it is a mythological scene. Interpreted on Greek premises ${ }^{104}$ she must be Athena. Furthermore, in Greek art the occasions when Athena takes active part in a combat are reduced to the Gigantomachy and the Heracles-Kyknos fight. Among the Greek representations of these themes it is not easy to find one which corresponds to the Paris Painter's. True enough the motif of a falling warrior attacked from both sides is very
common, but it is unusual that Athena should attack from behind in a secondary rôle. Closest to this is the shoulder picture on an Attic hydria of the Leagros group in the Vatican ${ }^{105}$. Here a hoplit attacks a fallen warrior from the left while Athena rushes forward from the right with her spear raised in her hand. Albizzati interprets the scene as Ares and Athena attacking a fallen giant. Vian, however ${ }^{106}$, believes that it is Athena attacking two giants. Under no circumstances can this be the case, even if she may be attacking the warrior to the left. In which case the lying figure should be a god as he is evidently attacked by the warrior to the left. Following Albizzati's interpretation of this Attic scene the Paris Painter's picture could depict Athena and Ares fighting a giant, but as this theme is not with certainty identified in Greek gigantomachies this interpretation must remain hypothetical ${ }^{107}$.

Hampe ${ }^{108}$ has ventured another interpretation of the scene. He points out that in the Pontic vases the two sides are often related in theme and therefore he sees a connection between the two scenes on the amphora in the Danish National Museum (cat. no. 12). He believes that the combat in which Athena participates represents the single combat between Achilles and Hector, while the other side should show Paris shooting an arrow at Achilles. The combat between Hector and Achilles is seldom seen in archaic Greek art ${ }^{109}$ and nowhere in the same elaboration as on the Paris Painter's amphora. There is a single Attic representation ${ }^{110}$ where Athena also seems to participate in the combat between the two heroes, but here she attacks the falling warrior from the front. The lekythos has the name inscriptions Achilles and Hector, but these inscriptions are very problematical ${ }^{111}$. Friis Johansen correctly notes that this is the traditional scheme for Athena in a gigantomachy and that the inscriptions, if genuine, must have been added by the painter as an afterthought. Representations of Paris shooting an arrow at Achilles are unknown in Greek art. But an archer participating in a fight between hoplites is naturally not unknown ${ }^{112}$. The Paris Painter's picture could be regarded as a similar, not clearly defined combat.

Even though Hampe's idea sounds tempting it must remain hypothetical. Although it is correct, as Hampe infers, that in most of the Paris Painter's amphorae there is a thematic agreement between the figure scenes on the two sides ${ }^{113}$, it is impossible to
deduce that the same agreement exists in the subject matter (i.e. it is not certain that the warrior arming on the B-side of Bibliothèque Nationale 172 (cat. no. 19) must be Theseus because he appears on the A-side of the vase, or that the warrior taking leave on the A-side of Louvre E 704 (cat. no. 29) is identical with one of the warriors on the B -side). If one agrees with Camporeale ${ }^{114}$, in that Etruscan knowledge of Greek myths has been procured only through pictorial representations, it is possible to explain the two combat scenes on the amphora in the Danish National Museum as: A, part of a gigantomachy and B, a not closer defined fighting scene. Finally it must be emphasized that we do not know whether Greek subjects are involved at all, and not Etruscan themes in a Greek disguise ${ }^{115}$.

Louvre E 704 (cat. no. 29) has a thematic connection between the two sides, A, a warrior's departure and B, a combat. The two motifs are composed very much in the same way. The painter has again used a number of juxtaposed figures, all turning to the same side, while the warrior taking leave and the warrior furthest to the left on the B-side turn around to take leave and to defend himself respectively. The departure scene is composed of elements well known in Greek vase-painting: the warrior looking back, the pleading old father, other lamenting relatives-one of them a child. That the warrior is drawing his sword might be an inspiration from representations of the departure of Amphiaraos, a motif copied on two other Pontic vases ${ }^{116}$. Pottier ${ }^{117}$ has suggested that it could be the departure of Hector ${ }^{118}$. In that case, the other side could be considered to represent Achilles pursuing Hector before the actual single combat ${ }^{119}$. Again it might be better to abstain from a mythological interpretation as the scene could just as well be a genre piece.

The representation on the Villa Giulia amphora (cat. no. 16) with a warrior ${ }^{120}$ in front of a team of horses ${ }^{121}$ can be regarded as a scene of departure. The other figure scene has not been preserved.

On the B-side of Bibliothèque Nationale 172 (cat. no. 19) there is a scene of arming. Again there is a thematic connection to the A-side with Theseus and the Minotaur, and once more the painter has picked out single details from Greek vase-painting ${ }^{122}$. Thus the man putting on his greaves appears innumerable times in Attic
vase-painting, although here he usually raises his leg while his helmet is lying on the ground. The motif with a helper holding the helmet is seen on a Corinthian bowl in the Louvre ${ }^{123}$ and in a few Attic scenes of arming ${ }^{124}$. As often before the Paris Painter has altered the very stereotyped Greek (Attic) motif.

The hunting scenes on Bibliothèque Nationale 187 (cat. no. 38) and the Seattle oinochoe (cat. no. 24) have been thoroughly examined by Amyx ${ }^{125}$ and shall not be amplified here.

The Heidelberg amphora (cat. no. 18) has been dealt with by Margot Schmidt ${ }^{126}$ and Hampe ${ }^{127}$. It is reasonable to assume with them that the pictures on both sides are directly connected ${ }^{128}$. In that case the B-side must depict the warriors' chariots and horses, even though it rather looks as if the two charioteers are arranging their own private race ${ }^{129}$. Hampe's idea that it should be Heracles fighting Kyknos must also remain very hypothetical, especially as Athena is missing ${ }^{130}$. Also the figure scenes on Metropolitan Museum 55.7 (cat. no. 10) have been interpreted as having a mythological content. It is once more impossible to see a thematic correspondence between the two sides and thus it seems correct, as E. Simon ${ }^{131}$, to regard the two sides as representing one subject ${ }^{132}$. Her interpretation of the two scenes as the strife amongst the goddesses at the wedding of Peleus and Thetis must, as Hampe's interpretation of the Heidelberg amphora (cat. no. 18), be considered very hypothetical. On the other hand, it seems no ordinary banqueting scene, as no drinking cups, winejugs, or similar accessories are shown. It is also difficult to see why a centaur should appear at a banquet in the house of a mortal ${ }^{133}$.

A few of the Paris Painter's vases have antithetical compositions of two animals on the shoulder instead of real figure scenes. This is primarily the case in the Corinthianizing hydriai Louvre E 695 (cat. no. 35) and Dresden 135 (cat. no. 36) with a lotus-palmette motif flanked by cocks, and the Fiesole hydria (cat. no. 34) where a warrior is flanked by two lions. Among the amphorae the theme is only found in two of the extant vases: Münzen und Medaillen XVIII, 141 (cat. no. 6), where the motif of the Louvre and Dresden hydriai is repeated, and the amphora in Tarquinia (cat. no. 15) where two lions flank a sitting silen seen en face.

## Vase Shapes

The Paris Painter's favourite shape seems to be the neckamphora with a low, conical, unprofiled foot, an ovoid body, and round handles. The greatest variation appears in the execution of the rim, which can vary from echinus-shaped ${ }^{134}$ over a nearly vertical ${ }^{135}$ to a concave form ${ }^{136}$. Under the rim there is often placed a moulded ring and a similar one can be found on the transition from neck to shoulder.

All three hydriai ${ }^{137}$ have a conical foot, a round shoulder, a moulded ring around the neck, and a vertical ribbon handle divided by three grooves. Louvre E 695 (cat. no. 35) and Dresden 135 (cat. no. 36) are identical in shape while the Fiesole hydria (cat. no. 34) has a broader moulded ring around the neck and lacks the mouldings on the horizontal handles.

The oinochoe shape has been described by Amyx ${ }^{138}$. British Museum B 54 (cat. no. 23) and Boulogne 158 (cat. no. 39), however, lack the thumb grip on the handle.

The solitary Nikosthenic amphora Berlin F 1885 (cat. no. 37) is rather fragmentarily preserved ${ }^{139}$. It follows, as Dohrn remarks ${ }^{140}$, the Etruscan rather than the Attic shape ${ }^{141}$.

The small vase shapes seem to have attracted the Paris Painter to a lesser degree. The cup in the Victoria and Albert Museum (cat. no. 27) has a high foot and a high vertical handle. Between foot and belly there is a moulded ring. In the same way there is a profile on the transition between the bottom of the cup and the vertical sides. The vertical handle is decorated with a modelled rosette and two circular discs on the highest point. The plate Bibliothèque Nationale 187 (cat. no. 38) is imperfectly preserved, the foot being modern ${ }^{142}$. Both shapes are well known in Pontic vase production.

## Dating

Relative dating. As mentioned above the Paris Painter's style is very homogeneous and it can be difficult to trace any chronological development. It does, however, seem possible to divide his production, especially the many amphorae, into different groups.

Closely related are the Vienna and the Heidelberg amphorae (cat. nos. 32 and 18) with their almost identical representations
of the lotus-palmette band on neck and belly. Further, both have on the belly a stylized band of ivy with red and black leaves ${ }^{143}$. The drawing of the figures corresponds in detail ${ }^{144}$, for instance in the long incision on the thighs of the men. The heads of the dancers on the Vienna amphora (cat. no. 32) have great likeness to the young charioteer on the Heidelberg vase (cat. no. 18).

The amphora in the Ny Carlsberg Glyptotek (cat. no. 28) is decorated on the belly with bands of stylized ivy and lotus-palmettes of the same types as on the two amphorae mentioned above. The same applies to the Villa Giulia amphora (cat. no. 16) where we furthermore find the same incision in the middle leaf of the lotus blossom that appeared on the Vienna amphora (cat. no. 32). This incision is also seen on the lotus buds on the amphora in Oxford (cat. no. 17) which, like the Villa Giulia vase (cat. no. 16), has a naturalistic ivy band on the shoulder. The amphora in Tarquinia with silens (cat. no. 15) has on the belly a very elaborate representation of this lotus-palmette band and above it a stylized ivy. On the upper part of the neck there is a little separate ornamental border, also seen on Ny Carlsberg Glyptotek H 146 a (cat. no. 28), while Vienna 3952 (cat. no. 32), Heidelberg 59/5 (cat. no. 18), and Oxford 1961.529 (cat. no. 17) only have the dark horizontal line a little way down the neck zone. The lotus blossoms on the amphora in Tarquinia (cat. no. 15) have the above-mentioned characteristic incision on the middle leaves. Finally to this group also belong the two amphorae Napoli H 6488 (cat. no. 25) and the one formerly on the Rome market (cat. no. 26), which could almost be regarded as companion pieces, plus Tarquinia RC 1051 (cat. no. 14).

This first group is characterized by the use of the "rounded" lotus type 2 and by the absence of the animal frieze on the belly.

The second group includes most of the amphorae. It is less homogeneous than the first group and can be divided into several subgroups ${ }^{145}$ with fluid transitions. Louvre E 704 (cat. no. 29) and Münzen und Medaillen XVIII, 141 (cat. no. 6) both have animal friezes directly under the figure frieze and tongues on the upper part of the shoulder-a detail also seen on several amphorae in group 1. On Louvre E 704 (cat. no. 29) there is a bird of prey of a type similar to that on Heidelberg 59/5 (cat. no. 18) and Oxford 1961. 529 (cat. no. 17). Closely connected with Münzen
und Medaillen XVIII, 141 (cat. no. 6) are the two amphorae in Musei Capitolini (cat. no. 4 and 5) all three having a decoration of two cocks flanking a plant ornament, though placed differently on the vases. On Musei Capitolini 95 (cat. no. 4) and Münzen und Medaillen XVIII, 141 (cat. no. 6) the animal friezes are very much alike containing boars, sphinxes with palmettes growing from their heads and a sitting panther. On Musei Capitolini 91 (cat. no. 5) the tongue pattern has been moved up on the neck, the same applies to Ars Antiqua III, 113 (cat. no. 7) and Münzen und Medaillen XXII, 192 (cat. no. 8) which are closely related to one another. In the two latter vases the tongue pattern only takes up part of the neck, while there is a band of ivy leaves above. The cocks placed under the handles of Musei Capitolini 91 (cat. no. 5) might mark the initiation of decorating this particular place. On Ars Antiqua III, 113 (cat. no. 7) and Münzen und Medaillen XXII, 192 (cat. no. 8) it has attained its canonic form of a volutepalmette ornament, which is found on a whole series of amphorae in group 2. Three amphorae differ by having a meander ornament between the figure and the animal frieze: Vatican 231 (cat. no. 3) Munich 837 (cat. no. 1), and Metropolitan Museum 55.11 .1 (cat. no. 9). On Würzburg 778 (cat. no. 2) there is a procession of centaurs like those on the two last mentioned vases, but as the decoration of its belly is like Musei Capitolini 91, and its decoration under the handles is also unlike the usual volute-palmette ornament, it may rather belong in the early phase of group 2. The amphora Berlin F 1675 (cat. no. 21) also has a figure frieze with centaurs but apart from that the decoration differs. The bands of ivy on the neck and belly have another type of leaf with an incision through the middle. Further there is no animal frieze on the belly but a lotus-palmette band of a new type. The ivy as well as the lotus-palmette bands are found again on Orvieto 463 (cat. no. 30). The palmettes belong to the group mentioned in the discussion of ornaments as type 2, which is also found on Metropolitan Museum 55.7 (cat. no. 10) where it has been placed in a new kind of ornament border. Related to this is the border on Tarquinia 529 (cat. no. 13) which likewise has an animal frieze on the belly. The four last mentioned amphorae have many features characteristic of main group 3. Until now the rim has been
dark but in Berlin F 1675 (cat. no. 21) it is decorated with a net pattern. Furthermore, there has been no attempt so far to render folds in the garments, but this is now attempted on Metropolitan Museum 55.7 (cat. no. 10), partly in the rugs on the couches and partly in the old man's chiton and the shepherd's cloak.

In group 2 the transitions from group to group are fluid, often they are more likely parallel than consecutive. It is, however, evident that there is a rather marked chronological development, when comparing for instance the two amphorae in Musei Capitolini (cat. no. 4 and 5) with Munich 837 (cat. no. 1) and Metropolitan Museum 55.7 (cat. no. 10). Two of the most characteristic elements in the group are the animal frieze and the decoration under the handles, but these elements are found on far from all the amphorae. It is a salient question whether group 1 is older than the oldest vases in group 2 ; a comparison between the figure frieze on Ny Carlsberg Glyptotek H 146 a (cat. no. 28) and Musei Capitolini 91 (cat. no. 5) does not seem to show any difference in time. However, I still find that there is sufficient homogeneity in group 1 to keep it apart.

Group 3 is clearly definable. It could be named "the partridge group" from the partridges which appear, either in a frieze of their own or in other friezes, on three of the amphorae in this group: Cambridge G 43 (cat. no. 20), British Museum B 57 (cat. no. 11), and Bibliothèque Nationale 172 (cat. no. 19). The two latter are further linked by the cauldrons with snake protomes in the figure friezes. Bibliothèque Nationale 172 (cat. no. 19) has in the upper part of the belly a border of what could be called lying-handle-palmettes. The same ornament is seen in the imperfectly preserved amphora Villa Giulia, Castellani 142 (cat. no. 33). Cambridge G 43 (cat. no. 20) has a lotus-palmette frieze under the partridge frieze, the lotus blossoms are here of the rectangular type 1 like those on the amphora in the Danish National Museum (cat. no. 16). All these four amphorae are decorated on the rim. On the amphorae in the Danish National Museum and British Museum B 57 (cat. nos. 16 and 11) the decoration is not the usual net pattern, but a step ornament and a band of leaves respectively. Furthermore these two amphorae do not have the usual convex but a lightly concave rim. None of the amphorae of this group
have any special decoration under the handles. Folds are shown in the clothes of the women on British Museum B 57 (cat. no. 11) and Bibliothèque Nationale 172 (cat. no. 19).

Some general features can be summarized: the tongue ornament belongs to the older amphorae, either placed on the neck or on the upper part of the shoulder. The same applies to the stylized ivy. Panthers on the neck belong to vases with animal frieze on the belly. On many of the older amphorae there is a dark line a little way down the neck: Heidelberg 59/5 (cat. no. 18), Oxford 1961. 529 (cat. no. 17), Vienna 3952 (cat. no. 32), the Tarquinia amphora with a silen (cat. no. 15), and Ny Carlsberg Glyptotek H 146 a (cat. no. 28). The last two, as mentioned, have a separate motif above this line. It is evident that the main decoration of the belly is either an animal frieze or a lotus-palmette frieze. The mythological motifs seem to belong mostly in the later part of the production. In the later part of group 2 the Paris Painter starts to render the folds of the garments but it is evident that he never gained real understanding of or interest in the problem. On British Museum B 57 (cat. no. 11), probably the youngest vase of his production, it is apparent that what should have been the lower folded edge of Athena's chiton has been placed a little above the Paris Painter's usual curved edge of the garment.

It is evident that of the remaining vases of his production the three hydriai ${ }^{146}$ must belong in the earlier stages because the cocks flanking the lotus-palmette ornament were found among the earlier vases of group 2. The Nikosthenic amphora Berlin F 1885 also belongs here with its rounded lotus-bud-frieze and stylized ivy band. The great elaboration which characterizes the drawing of the animals on this vase is found again in the Tarquinia amphora with silens (cat. no. 15). The Seattle oinochoe (cat. no. 24) and Boulogne 158 (cat. no. 39) also belong in the earlier part of the production, with their friezes of horsemen and tongue ornaments on the neck. Bibliothèque Nationale 187 (cat. no. 38) with its hunting frieze could be regarded as belonging to approximately the same time. On the other hand, it is hardly possible to date the oinochoe British Museum B 54 (cat. no. 23) and the cup in the Victoria and Albert Museum (cat. no. 27) with any certainty.

## Absolute Dating

External evidence for dating the Pontic vases is sparse. As far as the Paris Painter is concerned, we only know that the amphora from grave 106 on the Banditaccia necropolis at Cerveteri (cat. no. 22) was found in the right-hand side chamber together with, among other things, an Attic black-figured lekythos which, however, is only mentioned briefly and not depicted in the publication ${ }^{147}$.

The two Corinthianizing hydriai Louvre E 695 and Dresden 135 (cat. nos. 35 and 36) must undoubtedly have been made at a time when late Corinthian I ware ${ }^{148}$ was still exported to, or at least used in Etruria ${ }^{149}$. This late Corinthian I style terminates approximately $550-40$ B.C. ${ }^{150}$. The two vases proved to belong in the earlier part of the Paris Painter's production, and so it must be reasonable to assume that he started his production not later than in the decennium $550-40$ B.C.

It has often been pointed out ${ }^{151}$ that the Tyrrhenian neckamphora must have served as a model for the type of amphora used by the Paris Painter. The Tyrrhenian group was probably not manufactured later than during the second quarter of the 6th century B.C. ${ }^{152}$, which indicates that Pontic vase-production cannot have started later than 550 B.C. Dohrn supports this dating ${ }^{153}$ but he assumes that only the Amphiaraos Painter and maybe the Triton Painter started as early as that, the Paris Painter on the other hand about ten years later. Dohrn's arguments for the Amphiaraos Painter being the earliest of the painters ${ }^{154}$ can hardly hold water, since the painter seems to have made an effort to render the folds on Amphiaraos' chiton on Munich $838{ }^{155}$. True enough, his oinochoai are of an older form than the Paris Painter's, but the shape of Munich 838 seems younger than the Paris Painter's amphorae, especially the bell-shaped foot. The explanation is rather that the Amphiaraos Painter's style is much more provincial and therefore seems older.

The folds on the cushions in figure frieze A on Metropolitan Museum 55.7 (cat. no. 10) must imply a vase such as the Exekias amphora in the Vatican ${ }^{156}$, which is dated between 540 and 530 B.C. by Hemelrijk ${ }^{157}$, Langlotz ${ }^{158}$, and Cook ${ }^{159}$. On the old man on the B-side of the Metropolitan Museum 55.7 (cat. no. 10) the
folds in the chiton are rendered by vertical wavy lines, in the same way as seen on the amphora by the Amasis Painter, Bibliothèque Nationale $222^{160}$, which is dated by Langlotz ${ }^{161}$ before 530, by Cook to about $530^{162}$, and by Lane ${ }^{163}$ to about 540 , and also on the Northampton amphora Munich 585 which is dated by E. Walter-Karydi ${ }^{164}$ to 540 B.C.

On the A-side of the amphora in the Danish National Museum (cat. no. 12) the warrior to the left wears a chiton, the folds of which resemble those seen on some Caeretan hydriai, especially on the garments of Eos and Kephalos on Louvre E 702 dated by Hemelrijk ${ }^{165}$ to just before 530 B.C. at the earliest.

The most advanced rendering of folds is seen on British Museum B 57 (cat. no. 11) where the woman at the far left on the A-side wears a garment with a bundle of folds terminating at the lower edge in small triangles which give a clear three-dimensional effect.

On the same vase the chiton of Juno Sospita shows a bundle of folds in the centre of the front, which might be an imitation of the Attic fashion of a bundle of folds around a middle fold ${ }^{166}$. The inspiration for the Paris Painter's rendering of folds on this and other late vases must be the early Attic red-figured vasepainters such as the Andocides Painter or Psiax (or in sculpture the frieze on the treasury of the Siphnians in Delphi). Nothing indicates that his production continued much later than 520 B.C.

## The Paris Painter's Relationships to the Greek Vase-Schools

Attic influence: As was mentioned in the discussion of figure scenes, the Paris Painter was inspired in his motifs by Attic vasepainting. The similarity to the Tyrrhenian amphora mentioned in the passage on absolute dating seems incontestable as regards the form of the vase and the arrangement of the decoration in friezes, with the main motif on the shoulder and animal friezes frequently on the belly. On the earlier works by the Paris Painter there is furthermore often a tongue ornament on the shoulder as on the Tyrrhenian amphorae. The choice of animals in the animal frieze is to a large extent the same in the two vase groups. A more special phenomenon appearing on both are the sphinxes with
palmettes growing out of their heads ${ }^{167}$. However, the griffins, tritons, and hippocamps are lacking on the Tyrrhenian amphorae ${ }^{168}$. On the other hand, the variation of the animal frieze with oxen herded by a shepherd is found here ${ }^{169}$.

At the same time it must be stressed that there are a number of differences between the two groups. Dohrn ${ }^{170}$ points out that the moulded ring under the rim, seen on several of the Paris Painter's amphorae, is absent in the Tyrrhenian group. In the structure of decoration the Tyrrhenian amphorae often have several animal friezes on the belly, while the selection of ornamental borders is limited to lotus-palmette friezes. According to Attic customs ${ }^{171}$ the animals are placed in groups, while they nearly always walk in a row one after the other in the works of the Paris Painter.

Other traits which the Paris Painter may have borrowed from Attic vase-painting are the black handle field ${ }^{172}$, the rectangular lotus type 1, perhaps the band of ivy ${ }^{173}$, and the wavy lines used to render folds, for instance on the chiton of the old man on Metropolitan Museum 55.7 (cat. no. 10).

Corinthian influence: The clearest sign that the Paris Painter was inspired by Corinthian vase-painting is naturally his copies of late Corinthian hydriai. In shape Louvre E $642^{174}$ and $643^{175}$ are closest to his hydriai, the greatest difference being the shape of the horizontal handles. In motif Louvre E 695 (cat. no. 35) and Dresden 135 (cat. no. 36) are nearest to Corinthian, while the shoulder motifs on Fiesole 1132 (cat. no. 34) stand somewhat apart.

The Paris Painter also uses Corinthian motifs on a number of his other vases: the lotus-palmette ornament flanked by cocks on Musei Capitolini 91 (cat. no. 5), the step ornament on Danish National Museum 14066 (cat. no. 12) and the Cerveteri amphora (cat. no. 22), and the net pattern on a whole series of vases ${ }^{176}$.

There might possibly be some Corinthian influence in the painter's frequent use of added red and white paint ${ }^{177}$. This balance between the black colour and red and white is also seen in other groups of vases, for instance the Caeretan hydriai. Instead of seeing it as a Corinthian influence it would be more correct just to call it non-Attic.

East Greek influence: Beazley ${ }^{178}$ says of Munich 837 (cat. no. 1) that it shows an eclectic style with a dominating East Greek element without explaining to which elements he refers. This opinion is an offshoot of the older theory which considered the Pontic vases to be works by Ionian masters in Etruria ${ }^{179}$. Dohrn ${ }^{180}$ in his analysis reaches the conclusion that the connexion between the Pontic vases and East Greek art is not so much a matter of details as "die gleiche Gesinnung", and both Amyx ${ }^{181}$ and R. M. Cook ${ }^{182}$ reject an East Greek influence on Pontic vase-painting. The place of the Pontic vases as works by East Greek artists has now been taken over by two other groups of vases: the Northampton amphorae ${ }^{183}$ and the Campana vases ${ }^{184}$. Both groups have close relations to what we know as East Greek black-figured ware, especially Cook's Enmann Class ${ }^{185}$ and a few vases from his Miscellanea ${ }^{186}$. The Northampton and Campana vases and the Paris Painter's works do not have much in common, the few points of resemblance are, as a matter of fact, limited to characteristics of the Northampton amphorae which are also seen in Attic ${ }^{187}$, so that it is more reasonable to regard Attic vase-painting as the common source of inspiration. A possible direct inspiration from the Campana-Northampton vases to the Paris Painter might be seen in the short strokes he sometimes places along the backs of the animals ${ }^{188}$, a detail very much used in East Greek blackfigure.

Another group of vases found in Etruria with East Greek affiliations is the Caeretan hydriai. Hemelrijk in his monograph ${ }^{189}$ stresses the Etruscan origin. The many East Greek traits ${ }^{190}$, however, as for instance the name inscriptions on Louvre C 321 (Hemelrijk no. 21), makes him think that the painters must have been East Greek immigrants ${ }^{191}$. He shows that they must have been made from roughly 530 to after 510 B.C., thus later than most of the Paris Painter's production. It also appears that Hemelrijk's comparisons between the Caeretan hydriai and the Pontic vases all refer to the younger Tityos Painter. The style of the figures on the hydriai is much heavier than that of the Paris Painter and neither in the details, except maybe the rendering of the lotus blossoms, is there anything indicating that the Paris Painter should have gathered any inspiration from the same East Greek source as is the case with the Caeretan hydriai.

A few traits though seem to have been borrowed from East Greek art. Thus both Dohrn ${ }^{192}$ and R. M. Cook ${ }^{193}$ believe that the Paris Painter has borrowed the partridge, seen in his late works, from the Fikellura style. As Fikellura ware was only exported to Etruria in small numbers and as the motif is also known from other East Greek groups of monuments ${ }^{194}$, it could perhaps have been procured in another way.

Several of the Paris Painter's ornamental borders are likewise of East Greek origin, but as they are also seen in other Etruscan types of monuments it is hardly possible to decide whether he has adopted them directly from East Greek art or via Etruscan works of art. This applies for instance to the many variations of the meander where every second section is filled by stars or birds. The nearest parallels are probably seen on the Clazomenian sarcophagi ${ }^{195}$, while in Etruria they are known from the friezes from Velletri ${ }^{196}$ and from the architectonic terracottas from Cerveteri ${ }^{197}$ where in addition to the birds we find the rosette type, which is seen on Metropolitan Museum 55.11.1 (cat. no. 9).

East Greek inspiration lies behind the guilloche on the neck of Münzen and Medaillen XVIII, 141 (cat. no. 6), but in the second half of the 6th century B.C. that motif had spread also to other parts of the Greek world ${ }^{198}$, thus it is not certain that the Paris Painter borrowed it directly from East Greek art.

The Paris Painter's early rounded type of lotus with the "floating" middle leaves is related in type to the East Greek, without there being any close parallels. The same basic type is seen for instance in the La Tolfa group and on the bronze reliefs from Bomarzo in the Vatican ${ }^{199}$.

Chalcidian influence: There seems to be no influence from Chalcidian. On the amphora in the Danish National Museum the group of a panther attacking a bull in the lower figure frieze could recall Chalcidian groups of fighting animals, but what other resemblances there might be in ornament or figure motifs are more likely due to common sources of inspiration in Corinthian and Attic ${ }^{200}$.

## The Paris Painter and Etruscan Art

It seems that although the Paris Painter was inspired by several of the Greek vase-schools, there is not one showing a closer stylistic
correspondance with him. Such a correspondance is, however, found with Etruscan art of the time. The man and woman on the terracotta sarcophagus from Cerveteri in the Villa Giulia have profiles ${ }^{201}$ resembling those of the figures on the Paris Painter's works. It is for instance possible to compare the profile of the man with the men on Ny Carlsberg Glyptotek H 146 a (cat. no. 28). The same facial profiles are also seen on the terracotta friezes from Velletri ${ }^{202}$, especially in the assembly of the gods where also the proportions of the figures and their bearing clearly bring to mind the Paris Painter; they look as if they are his figures used in relief. The friezes have been dated by Andrén ${ }^{203}$ to the middle of the 6 th century, while $\AA$ kerström ${ }^{204}$ believes that they cannot be older than the last quarter of the 6th century B.C. He bases this late dating on a comparison between the horse-racing scenes on the terracotta plaques, the racing scene on the Pontic Amphiaraos amphora in Munich, and the horse on the Pontic amphora in Reading. He believes that the differences between them are chronological, the Amphiaraos amphora being the oldest and the terracotta frieze the youngest. Åkerström accepts Dohrn's dating of the Amphiaraos amphora ${ }^{205}$ to about $550-40$ B.C. and therefore, as mentioned, places the terracotta friezes in the last quarter of the 6th century B.C. If, however, one compares the horses on the Velletri terracotta friezes with the Paris Painter's horses there is a great likeness, for example between the racing frieze and the two teams of horses on the Heidelberg amphora (cat. no. 18), and between the frieze with horsemen and for instance the Vatican amphora (cat. no. 3). Like the horses on the Velletri frieze, the Paris Painter's horses are fairly slim with strongly curved necks and narrow heads. For this reason I find no stylistic reasons for dating the Velletri friezes as late as $\AA$ kerström does, but rather in the third quarter of the 6th century B.C. ${ }^{206}$.

The Paris Painter has also clear stylistic connexions with Etruscan monumental painting, not so much the paintings in the graves at Tarquinia, which in most cases are younger, but more with some of the terracotta plaques from Cerveteri. On the Campana plaques in the Louvre ${ }^{207}$, for instance, we find the procession motif where the participants carry a branch in one hand while stretching the other forward. Here also is the simplicity and clarity which marks the Paris Painter's compositions. Somewhat ana-
logous is the case with the Boccanera plaques in the British Museum ${ }^{208}$

In addition a whole series of details ties the Paris Painter to Etruscan art, as has often been shown ${ }^{209}$. I shall not here enumerate them again, but just mention a few which may not have been remarked upon before. As mentioned when discussing Attic influence, the Paris Painter's animal friezes differ from those of Greek vase schools in that the animals nearly always walk or run in a row. Similar animal friezes are found on Bucchero and Red-ware vases ${ }^{210}$ where also tritons and hippocamps can be found ${ }^{211}$, which are known too from the painted gables in Etruscan tombs ${ }^{212}$. Many features of the individual animals are also found in the tomb paintings. His type of lion with the mane divided in two in front ${ }^{213}$ is found for instance in the Tomba del Topolino ${ }^{214}$, while the facial drawing of his panthers much resembles that seen in tomb 3698 in Tarquinia ${ }^{215}$.

It is not quite clear in which of the two Etruscan cities, Cerveteri or Vulci, the Pontic vase-painters worked ${ }^{216}$. As far as the Paris Painter is concerned the provenance of about half of his vases is known: 4 come from Tarquinia (cat. no. 13-15 and 21), 2 from Orvieto (cat. nos. 30-31), while 6 come from Vulci (cat. nos. $1-3,19,20$ and 38 ) and 7 from Cerveteri (cat. nos. 4-5, 16, $22,27,32$, and 33). This distribution differs somewhat from that of other Pontic vases which predominantly come from Vulci ${ }^{217}$.

The Paris Painter's style seems to have its closest connexions with South Etruscan art, such as the already mentioned terracotta sarcophagus and the painted plaques from Cerveteri, plus the architectonic friezes from Velletri, Rome, and Veii, which were possibly manufactured in $V^{2} i^{218}$. Nevertheless the picture may easily be distorted on this point too, as there is no comparable large amount of works preserved from Vulci from this period ${ }^{219}$. There are not many points of resemblance between the Vulcian bronzes ${ }^{220}$ and the Paris Painter's work, but this might be due to the fact that his style is older, since there is a clearer connexion between the bronzes and the later Pontic vase-painters, stylistically perhaps most marked with Riis' Tripod-workshop $1^{221}$. Dohrn has already shown ${ }^{222}$ that the large lyre motifs, as for instance on the neck of Louvre E 703, are found on the bronze tripods. For the Pontic vases as a whole everything points to Vulci as the place
of manufacture. It seems to me to be of importance that a whole series of the smaller and lesser vases have been found here, while only vases of high quality primarily by the Paris Painter have been found in Cerveteri. It looks as if it is mostly his earlier works that have been found here, but this might be a coincidence and cannot be taken as an indication that he started his career in Cerveteri and later moved to Vulci.

On the other hand if one assumes that he worked in Vulci all his life, one must also assume that to a certain extent similar stylistic tendencies prevailed in Vulci and in Cerveteri ${ }^{223}$.

In contrast to many other Etruscan vase-painters, the Paris Painter understood and mastered his medium just as well as the Greek vase-painters and like these he subjected himself to a strict restraint and discipline by retaining certain features once he found a satisfactory way of rendering them. He had no tradition of Etruscan vase-painting behind him on which to build, but in contrast to the contemporary or slightly earlier Etruscan Ivy Painter he chose to convert the Etruscan style of his day-if one dares to talk of such a common denomination-into vase-painting, and not to copy the style of one of the Greek workshops. The attractive thing about the Paris Painter is the vigour with which he handled motifs often well known to us from Greek vase-painting, and his pronounced sense of the decorative.

## Notes

1. T. Dohrn, Die schwarzfigurigen etruskischen Vasen aus der zweiten Hälfte des sechsten Jahrhunderts, Berlin 1937.
2. Previous to Dohrn, Ducati in a more sketchy form had tried a classification of the group (Pontische Vasen, Berlin 1932), which was commented on and partly reorganized by Mingazzini in a review (Gnomon 11 p. 68 ff .).
2 a. Listed in this catalogue are some pieces of which the authenticity has previously been doubted. Since scientific investigations now have proved them genuine, they are included here.
3. Beazley in his book Etruscan Vase-Painting, Oxford 1947, has only a very short comment on the Pontic vases.
4. Hommages à Albert Grenier, Collection Latomus vol. LVIII, 1962, p. 124.
5. E.g. R. M. Cook, Greek Painted Pottery (London 1972) p. 154 f., EAA VI Pontici Vasi (Paribeni) and V Paride, pittore di (P. Bocci).
6. E.g. D. von Bothmer in Metropolitan Museum Bulletin n.s. 14, 1955-56, and the above-mentioned article by Amyx.
7. Later I hope to publish similar articles on other of the Pontic vase-painters.
8. On one of the panthers on the A-side the usual rendering of the front leg has been decorated with a palmette, it can be seen faintly on Albizzati fig. 26. See fig. 7.
9. In the little sketchy hunting frieze the rendering of the shoulder is often divergent.
10. This jug is, as Dohrn mentions, of far inferior quality to the average of the Paris Painter's works. The details are his, often however weakened. It is possible that it is a work from his workshop, but more likely a careless work by his own hand (see the comment on the Louvre E 703 Painter).
11. Both on this very badly preserved and damaged oinochoe, formerly heavily restored, and on British Museum B 54 the drawing is more superficial and careless than normal; nevertheless there are so many points corresponding to the Paris Painter's rendering of details that it may rather be regarded as a careless work than a work by the workshop.
12. At times there is only a single arch, or the rendering of the knee is omitted.
13. Resembling the tails of the oxen.
14. Oxen and one panther.
15. The fragment in Leipzig T 328, mentioned by Mingazzini, has been lost since the war, and there exist no photographs of it.
16. E.g. Oxford 1961. 529 (cat. no. 17) or British Museum B 57 (cat. no. 11).
17. E.g. on the belly of Danish National Museum 14066 (cat. no. 12).
18. E.g. Heidelberg $59 / 5$ (cat. no. 18), Oxford 1961. 529 (cat. no. 17) and Vienna 3952 (cat. no. 32).
19. E.g. Orvieto 463 (cat. no. 30), Metropolitan Museum 55.7 (cat. no. 10) and Berlin F 1675 (cat. no. 21).
20. E.g. Cambridge G 43 (cat. no. 20), Vienna 3952 (cat. no. 32), Ny Carlsberg Glyptotek H 146 a (cat. no. 28) and Heidelberg 59/5 (cat. no. 18).
21. E.g. Orvieto 463 (cat. no. 30), Metropolitan Museum 55.7 (cat. no. 10) and Berlin F 1675 (cat. no. 21). Note that it belongs together with lotus type 2.
22. E.g. the Villa Giulia amphora (cat. no. 16), Tarquinia RC 1051 (cat. no. 14) and Musei Capitolini 91 (cat. no. 5).
23. E.g. on Vatican 231 (cat. no. 3) and Metropolitan Museum 55.7 (cat. no. 10).
24. On Castellani 412 (cat. no. 33) and Bibliothèque Nationale 172 (cat. no. 19).
25. E.g. on Ny Carlsberg Glyptotek H 146a (cat. no. 28), Vienna 3952 (cat. no. 32) and Münzen und Medaillen XXII, 192 (cat. no. 8).
26. E.g. Berlin F 1675 (cat. no. 21), Orvieto 463 (cat. no. 30) or Oxford 1961. 529 (cat. no. 17).
27. E.g. on the rim of Cambridge G 43 (cat. no. 20) and on the belly of Musei Capitolini 91 (cat. no. 5).
28. E.g. on the belly of the Seattle oinochoe (cat. no. 24) and Würzburg 778 (cat. no. 2).
29. E.g. Musei Capitolini 91 (cat. no. 5) Münzen und Medaillen XXII, 192 (cat. no. 8), the Villa Giulia amphora (cat. no. 16) and Oxford 1961. 529 (cat. no. 17).
30. On the neck of Münzen und Medaillen XVIII, 141 (cat. no. 6).
31. On the belly of British Museum B 54 (cat. no. 23).
32. On the rim of Danish National Museum 14066 (cat. no. 12) and on the belly of the Cerveteri amphora (cat. no. 22), Napoli H 6488 (cat. no. 25), and Louvre E 704 (cat. no. 29).
33. On the rim of British Museum B 57 (cat. no. 11) and the belly of the Napoli amphora (cat. no. 25).
34. On the belly of Bibliothèque Nationale 172 (cat. no. 19).
35. On the belly of Musei Capitolini 95 (cat. no. 4).
36. Op. cit. p. 327 f. No. 1444 and 1445.
37. Payne mentions that it is possible somewhere on Louvre E 695 to see the original pale colour of the clay; it has, however, definitely not the greenish Corinthian colour, but the brownish-yellow seen in most of the Pontic vases.
38. In rare cases there is an ornament between the rays, on Vienna 3952 (cat. no. 32) and Bibliothèque Nationale 172 (cat. no. 19) a swastika, on Berlin F 1675 (cat. no. 21) a cross. Heidelberg $59 / 5$ (cat. no. 18) has a double row of rays and on Metropolitan Museum 55.11 .1 (cat. no. 9) a triangle is incised in every ray.
39. Berlin F 1675 (cat. no. 21) and Bibliothèque Nationale 172 (cat. no. 19).
40. Danish National Museum 14066 (cat. no. 12).
41. British Museum B 57 (cat. no. 11).
42. Ars Antiqua III, 113 (cat. no. 7) and Münzen und Medaillen XVIII, 192 (cat. no. 8) differ in having an ivy band at the top and under that a tongue ornament. Ny Carlsberg Glyptotek 146 a (cat. no. 28) has a row of dots limited
by a dark line over the ivy band, while the Tarquinia amphora with a silen between two lions (cat. no. 15) has a pseudo meander placed in the same way.
43. Vatican 231 (cat. no. 3), Metropolitan Museum 55.7 (cat. no. 10), Tarquinia 529 (cat. no. 13), British Museum B 57 (cat. no. 11) and Orvieto 2665 (cat. no. 31).
44. Heidelberg 59/5 (cat. no. 18), Vienna 3952 (cat. no. 32) and the Danish National Museum 14066 (cat. no. 12).
45. E.g. the Cerveteri amphora (cat. no. 22), Ny Carlsberg Glyptotek 146a (cat. no. 28), Orvieto 463 (cat. no. 30), and Louvre E 704 (cat. no. 29).
46. Metropolitan Museum 55.11 .1 (cat. no. 9).
47. Musei Capitolini 95 (cat. no. 4).
48. Münzen und Medaillen XVIII, 141 (cat. no. 6).
49. München 837 (cat. no. 1).
50. E.g. Heidelberg 59/5 (cat. no. 18), Louvre E 704 (cat. no. 29), and the Villa Giulia amphora (cat. no. 16).
51. They will be dealt with separately later in the article.
52. On Bibliothèque Nationale 172 (cat. no. 19) a narrow ornamental band is inserted over the rays.
53. Under and between the larger animals can be placed long-necked birds (British Museum B 54 (cat. no. 23)), partridges (Bibliothèque Nationale 172 (cat. no. 19)), snakes, hares or a bird of prey (all on Louvre E 704 (cat. no. 29)).
54. Lions on Metropolitan Museum 55.11.1 (cat. no. 9) and partridges on Cambridge G 43 (cat. no. 20).
55. Or where there is no figure frieze, both belly friezes.
56. Louvre E 704 (cat. no. 29), Ars Antiqua III, 113 (cat. no. 7), Münzen und Medaillen XXII, 192 (cat. no. 8), Metropolitan Museum 55.7 (cat. no. 10), Vatican 231 (cat. no. 3), and Tarquinia 529 (cat. no. 13) where the palmette has been dissolved into three single leaves. Variations of this handle decoration are seen on Würzburg 778 (cat. no. 2), where two lions flank a fantasy tree, and on Musei Capitolini 91 (cat. no. 5) where two cocks flank a lotuspalmette ornament.
57. Dohrn No. 93. Depicted in Boehlau, Nekropolen p. 146.
58. Dohrn Nos. 96 and 97. Langlotz Taf. 229.
59. Dohrn No. 94, depicted in AM 1920 Taf. 5.3.
60. Dohrn No. 95. Robinson, Catalogue of the Royal Ontario Museum no. 210, pl. XV and drawing on p. 70.
61. Dohrn No. 67. Sieveking-Hackl Abb. 182.
62. Dohrn No. 87.
63. Sammlung Vogell, p. 9, No. 51.
64. Dohrn No. 89. The cup has not yet appeared in Munich after the war, so $\mathbf{I}$ only know it from the reproduction in Sieveking-Hackl.
65. This can, however, also be seen in the Paris Painter's works, for instance on the dogs and hares on the Seattle oinochoe.
66. Sieveking-Hackl Abb. 172 and Taf. 51.
67. The Amphiaraos Painter often seems to imitate the Paris Painter's manner of rendering anatomical details.
68. Dohrn No. 74. Jacobsthal, Ornamente Taf. 10 c. Ducati Pl. 9b.
69. Dohrn Nos. 75-78. All four vases have not yet appeared in Munich after the war, so my judgment relies on the reproductions in Sieveking-Hackl Taf. 34 and Abb. 108-115.
70. Dohrn No. 79. Ducati Pl. 17b.
71. Dohrn No. 82. Langlotz Taf. 227.
72. On the bull and the panther ( Pl .30 a and c ).
73. Like, for instance, on the elbows of the human beings.
74. See the comasts on Orvieto 463 (cat. no. 30).
75. Jacobsthal, Ornamente Taf. 10 b.
76. Louvre E 703 (pl. 29), Munich 839-41 and 924 (see note 70).
77. See note 71.
78. Dohrn No. 85 a, Sieveking-Hackl Abb. 160-163.
79. Dohrn No. 86. CVA Bruxelles 3, IV B Pl. 1. Ducati Pl. 21.
80. Dohrn No. 99. Ducati Pl. 17 a.
81. Dohrn No. 100. Ducati Pl. 27 a.
82. In a following article I hope to return to this Louvre E 703 Painter, to whom several other vases can be ascribed.
83. The last one, however, seems to carry a spear.
84. Note especially Metropolitan Museum 55.11 .1 (cat. no. 9).
85. Under two of the horses on the Vatican amphora (cat. no. 3) there are hares, thus a dog-chasing-hare motif as seen in the two hunting scenes of the painter (Bibliothèque Nationale 187 (cat. no. 38) and the Seattle oinochoe (cat. no. 24)).
86. This does not apply to the one farthest back on the Seattle oinochoe.
87. The dog-chasing-hare motif is purely a filling and has nothing to do with the narrative.
88. Normally towards the left.
89. Beazley describes the representation extremely well in EVP p. 1. Clairmont (Das Parisurteil in der antiken Kunst, 1951, p. 18) has interpreted the elderly gentleman as Teukros, this is probably too subtle and the old identification as Priam seems more probable.
90. Cf. Clairmont op. cit. p. 100, 104 and 18.
91. Vasenlisten zur griechischen Heldensagen, 1960, p. 172.
92. On amphorae.
93. JHS XIV, 1894 Pl. VII.
94. JRS III, 1913, p. 61 ff.
95. A similar object is carried by one of the persons on the bronze relief from Castel S. Mariano depicted in AD III Taf. 15.
96. Annuario della Scuola Archeologica di Atene 24-26, 1946-48, p. 85 ff .
97. Op. cit. fig. 18 B.
98. See also Roscher Myth. Lex. p. 2221.
99. On one side a centaur, on the other a giant.
100. Centaurs p. 62.
101. Cf. Baur p. 172.
102. Lamb CVA Cambridge I p. 18 and Brommer, Vasenlisten p. 5.
103. Which we continually apply to Etruscan art.
104. Albizzati No. 422 fig. 139.
105. Répertoire des gigantomachies, 1951, p. 42, No. 120.
106. Schauenburg in Ars Antiqua I p. 46 mentions the interpretation as a gigantomachy as a possibility.
107. Griechische Sagen in der frühen etruskischen Kunst, 1964, p. 45 f.
108. Cf. Friis Johansen, The Iliad in Early Greek Art, 1967, p. 213 and 262 ff.; this evidently is Hampe's background for using it in his book about the possibility of direct Etruscan knowledge of the Greek epics.
109. On a black-figured lekythos in Oslo, CVA Norway 1 pl. 18 and 19.
110. Friis Johansen op. cit. p. 264 and CVA Norway 1 p. 24.
111. E.g. a Nikosthenic amphora in the Vatican (Albizzati No. 361 Pl. $48=$ M. F. Voss, Scythian Archers in Archaic Attic Vase-Painting, 1963, No. 213), or an East Greek sherd from Tell Defenneh (CVA British Museum 8 Pl. 584.3).
112. Thus on the vases where the motifs on the two sides are dissimilar there still is a connection, for instance combat-warrior's departure (Louvre E 704 (cat. no. 29)).
113. Partly in St. Etr. 26, especially p. 15-16, partly in the article "Banalizzazioni etrusche di miti greci" in Studi in onore di Luisa Banti, 1965, p. 111 ff .
114. Cf, the Juno Sospita-Heracles motif.
115. Munich 838 and an amphora in Basel from the Züst Collection (Hampe-Simon p. 18 ff.).
116. Vases antiques du Louvre, 1897, p. 67.
117. He probably refers to the Iliad XXII, 25 ff .
118. It must, however, be stressed that the warrior is pursued by three men and not just one.
119. In the same attitude as the warrior on the A-side of Louvre E 704 (cat. no. 29); however he does not turn his head.
120. Teams of horses are a standard feature in many of the Greek representations of departure scenes, cf. Wrede, Kriegers Ausfahrt in der archaisch-griechischen Kunst, AM 1916, p. 221 ff .
121. K. Friis Johansen, The Iliad in Early Greek Art, 1967, p. 110 with references to earlier literature.
122. Friis Johansen, op. cit. fig. 36.
123. E.g. on a hydria in Schloss Fasanerie (CVA 1, Taf. 10) and on an amphora in the Vatican (Albizzati no. 396, tav. 57).
124. Op. cit. p. 128 ff.
125. CVA Heidelberg 2 p. 18 ff . and Taf. 55 and 56, 1-3.
126. Op. cit. p. 1 ff .
127. Completely different motifs in the two figure scenes on the same vase are otherwise only found on Munich 837 (cat. no. 1) where one subject is spread over both sides and on Metropolitan Museum 55.7 (cat. no. 10).
128. Hampe, op. cit. p. 9, gives a reasonable explanation for this. Apart from his objections, one could add the Paris Painter's inclination to place the figures behind each other facing the same direction (the procession motif).
129. Cf. Vian, Le Combat d’Herakles et de Kyknos, Revue des Etudes Anciennes 1945, p. 5 ff.
130. Griechische Sagen in der frühen etruskischen Kunst p. 40 ff .
131. Cf. the judgment of Paris on Munich 837 (cat. no. 1).
132. One could imagine that it was an Etruscan subject, but the centaur rather points to the Greek mythical world.
133. Or nearly rounded as in Ny Carlsberg Glyptotek H 146a (cat. no. 28). Now and then it has profiles like Musei Capitolini 91 (cat. no. 5) and Würzburg 778 (cat. no. 2).
134. Danish National Museum 14066 (cat. no. 12).
135. British Museum B 57 (cat. no. 11).
136. Louvre E 695 (cat. no. 35), Dresden 135 (cat. no. 36) and Fiesole 1132 (cat. no. 34).
137. Op. cit. p. 122.
138. Thus the whole lower part of the ring of rays is modern, the foot however is antique but not belonging to the vase (cf. Furtwängler, Beschreibung der Vasensammlung im Antiquarium, 1885, p. 369).
139. Dohrn p. 53.
140. Mingazzini p. 38 text to no. 129.
141. Cf. de Ridder, Catalogue p. 95.
142. The ivy is, however, not placed in the same position on the two vases.
143. I.e. also beyond the standard traits of the Paris Painter.
144. The group-division used here may not be the only one possible.
145. Fiesole 1132 (cat. no. 34), Louvre E 695 (cat. no. 35), and Dresden 135 (cat. no. 36).
146. Monumenti Antichi 1955 p. 538 no. 7 (48076). Professor P. J. Riis has kindly pointed out to me that the description in the text seems to show that this lekythos, which on the shoulder has "figure ammantate e palmette", can be compared with the lekythos Athens 371 (depicted in Haspels ABL pl. 12.2 and mentioned p. 35 f .) dated to $540-30$ B.C. Similar shoulder decorations are, however, also seen later (Haspels p. 67), and it would be too bold to use this lekythos for dating purposes, without a personal inspection or a picture of it.
147. The period to which Payne ascribed the two hydriai, cf. Necrocorinthia p. 327 ff .
148. One might ask whether the vases were sold as "genuine Corinthian".
149. Payne p. 104 ff ., Cook GPP p. 58, Lane, Greek Pottery, 1948, p. 35, date the termination of the style to about 550, L. Banti in EAA II p. 850 towards 540 B.C.
150. F.R. I p. 94 and Ducati p. 7.
151. Cf. von Bothmer, The Painters of "Tyrrhenian"' Vases. AJA 1944, p. 61 and R. M. Cook GPP p. 77.
152. P. 79.
153. P. 78 ff .
154. Sieveking-Hackl Abb. 106. Dohrn, Originale etruskische Vasenbilder?, BJb 166, 1966, p. 122 Abb. 10.
155. Albizzati no. 344. Arias-Hirmer, Tausend Jahre Griechische Vasenkunst, 1960, Taf. 63.
156. P. 47.
157. Zur Zeitbestimmung p. 13.
158. GPP p. 86.
159. Arias-Hirmer op. cit. Taf. 56 and XV.
160. Zur Zeitbestimmung p. 16.
161. Op. cit. text to pl. 23.
162. Greek Pottery, 1948, p. 39.
163. CVA Munich 6, p. 46.
164. P. 47.
165. Langlotz, Zur Zeitbestimmung p. 17-38. G. M. A. Richter, Attic Red-figured Vases, 1958, p. 22.
166. Thiersch, "Tyrrhenische" Amphoren, 1899, Taf. II,6.
167. Cf. Thiersch op. cit. p. 97.
168. E.g. Thiersch op. cit. Taf. II, 1-4.
169. P. 52.
170. And for that matter also the other Greek vase-schools.
171. They are seen, for instance, on the amphora Louvre E 861 (CVA Louvre 1, III Hd pl. 6,5 and 12), and later in the 6 th century the figure scenes on the shoulders of Attic amphorae are very often framed by black panels. The idea is also used on one of the Northampton amphorae, Munich 586 (CVA Munich 6 Taf. 297) which is very strongly inspired by Attic.
172. Especially the stylized ivy in his earlier works is often seen in Attic. A similar rendering is also seen in the Northampton amphorae (e.g. Munich 585, CVA Munich 6 Taf. 299). The more naturalistic form of ivy seen in his later works resembles more the rendering of the motif on Laconian and Chalcidian vases or the Caeretan hydriai.
173. Payne no. 1447 and pl. 43.
174. Payne no. 1446, Pottier, Vases Antiques du Louvre pl. 51.
175. Cf. the passage on the net pattern in the discussion of ornamentation.
176. Cf. Payne p. 105.
177. EVP p. 1.
178. Furtwängler in Antike Gemmen III p. 88 ff ., Ducati in Pontische Vasen p. 9, or Pfuhl in Malerei und Zeichnung der Griechen, 1923, p. 184 § 183.
179. P. 75 ff .
180. P. 131 ff .
181. GPP p. 155.
182. Mon. Piot 43, 1949, p. 3 ff. Jb Berl Mus. 5, 1963, p. 114 ff.
183. CVA Munich 6 p .42 ff . with references to earlier literature.
184. BSA 1952 p. 134-35.
185. Ibid. p. 138 ff.
186. Cf. the passage on Attic influence.
187. See, for instance, the Seattle oinochoe (cat. no. 24).
188. De Caeretaanse Hydriae, 1956. Since publication of his catalogue of 30 numbers there have appeared a series of new hydriai. Schauenburg in his article in Antike Kunst 12, 1969, p. 99, note 16, mentions 4 more: Danish National Museum 13567 (published by Friis Johansen in Opuscula Romana 4, 1962, p. 61 ff .), Metropolitan Museum 64.11 .1 (Bulletin of the Metropolitan Museum 1964-65 p. 72), Boston Museum of Fine Arts 67.598 (Classical Journal 64, 1968, p. 60 ff .), plus one in the Museum of Antiquities in Basel (published by Schauenburg in the mentioned article). Further there is a hydria in Dunedin in New Zealand (published by J. K. Anderson in JHS 1955 p. 1 ff .) and an
unpublished hydria in the museum in Cerveteri (from grave 546 in the Monte Abatone necropolis) with the following decoration: neck: a pair of eyes, shoulder: a team of horses and two sphinxes, belly: lotus-palmette frieze, foot: tongues. Furthermore in Monumenti Antichi 42, 1955, (p. 790 no. 21), grave 304 in the Banditaccia necropolis, there is mention of some fragments of a Caeretan hydria with a band of ivy round the belly, while of the figure frieze only the front leg of a horse is extant. Hemelrijk's fragment no. 30 is in Munich (CVA Munich 6 Taf. 296,4).
189. Enumerated by Hemelrijk p. 58 ff.
190. Hemelrijk's division of the hydriai into works of two different masters, the Busiris Painter and the Knee Painter, has not been widely accepted (cf. Friis Johansen, Opuscula Romana 4 p. 62 note 1 and Schauenburg, Antike Kunst 12, 1969, p. 99). Apart from the difference in the rendering of the knee by the two painters, stressed by Hemelrijk, there might be another detail in favour of his classification. Two different ways of rendering the cloaks are involved. On Louvre E 697 (Hemelrijk no. 23) and in the little frieze on the Busiris hydria (Hemelrijk no. 24) both by the Busiris Painter, the hunters wear cloaks which flow behind them, rendered with a clear three-dimensional effect, while the hunters on the hydria in the Metropolitan Museum and the hindmost hunter on Louvre E 698 (Hemelrijk no. 16), both by the Knee Painter, wear cloaks, the rendering of which only makes sense if regarded as an unsuccessful effort to imitate the cloaks of the Busiris Painter.
191. P. 75.
192. BSA 1952 p. 65.
193. E.g. it is seen on an architectonic terracotta frieze from Milas, $\AA$. $\AA$ kerstrøm, Die architektonischen Terrakotten Kleinasiens, 1966, Taf. 59,1.
194. E.g. British Museum 96.6-15.1, CVA British Museum 8 pl. 610.
195. Andrén, Arch. Terr., 1940, pl. 127.
196. Andrén, Arch. Terr. p. 29 Abb. 19.
197. It is seen, for instance, in architectonic terracottas from Olympia (E. Van Buren, Greek Fictile Revetments in the Archaic Period, 1926, fig. 118) and Syracuse (E. Van Buren, Archaic Greek Fictile Revetments in Sicily and Magna Graecia, 1923, fig. 38).
198. Giglioli, L’Arte Etrusca, 1935, Tav. CXXVII, 6.
199. L. Banti, in her article on the Chalcidian vases in EAA (vol. II p. 264), emphasizes the minimal influence of Chalcidian ware on the local schools in Etruria.
200. The best pictures in Giglioli op. cit. Tav. CXVIII-CXIX.
201. Andrén, Arch. Terr. pl. 126-28.
202. Arch. Terr. p. 409.
203. Opuscula Romana 1 p. 226 ff .
204. Dohrn p. 79.
205. Professor P. J. Riis has kindly pointed out to me a fact which seems to invalidate my early dating, namely that fragments of friezes of the same type as those from Velletri bave been found on the Capitol in Rome and therefore might come from the Capitoline Jupiter temple, which was inaugurated in 509 B.C. (see also Riis' remarks in Entretiens de la Fondation Hardt 13,

1966, p. 86). However, even if friezes of this type were used as late as 509, I still find that their style goes back to the third quarter of the 6 th century, so that they must have seemed old-fashioned in 509.
207. F. Roncalli, Le Lastre Dipinte da Cerveteri, 1965, p. 15 ff. and tav. I-VIII.
208. Roncalli op. cit. p. 28 ff. and tav. XII-XV.
209. Dohrn p. 63 ff . with reference to earlier literature.
210. E.g. the Bucchero jug in Bruxelles (CVA Belgium 2 pl. 94 no. 15), the Redware dish in Braunschweig (CVA pl.31,5-7) although here every fourth animal turns the opposite way, a similar dish in the Castellani Collection in Villa Giulia (Mingazzini no. 281, tav. XII,4 and XIV,2-3), and an urn in Gotha (CVA 1 Taf. 16, 1-2).
211. As mentioned in the passage on Attic influence, animals which are not seen in Greek animal friezes.
212. E.g. Tomba dei Tritoni (Moretti, Nuovi Monumenti della Pittura Etrusca, 1966, p. 64 ff.), Tomba Bartoccini (Moretti op. cit. p. 8 ff.), and Tomba del Barone (Weege, Etruskische Malerei, 1921, pl. 77).
213. W. L. Brown, The Etruscan Lion, p. 77 ff. type 1.
214. Moretti op. cit. p. 72 ff .
215. Moretti op. cit. p. 44-45.
216. Dohrn's theory (StEtr. 12, 1938, p. 283) of Tarquinia as the place of manufacture has not been widely accepted, and in his comment on the amphora in the Vatican (cat. no. 3) in Helbig, Führer I, 1963, p. 647, he himself writes that he believes that the vases were probably made in Vulci.
217. This must be taken with great reservation as long as the finding place is only known for about half of the vases.
218. Cf. Andrén, Arch. Terr. p. CLI and 409. Riis, Acta Arch. 1941 p. 78, believes that their style does not correspond to what is otherwise known from Veii, but rather with the style known from Cerveteri and Latium. In "Den etruskiske Kunst'", 1962, p. 105, however, he writes that there is a strong indication that the friezes originated in Veii.
219. Preserved are mostly stone sculpture and the many bronzes which have been assigned to the town.
220. Note especially Riis, Tyrrhenika, 1941, p. 77 ff.
221. ActaArch. 1939 p. 22 ff.
222. Dohrn p. 60.
223. Cf. Thieme, Die Dreifüsse der Sammlung J. Loeb im Museum für Antike Kleinkunst, 1967, p. 96, on the difficulties of clearly distinguishing between the workshops in Cerveteri and Vulci. The Pontic vases on the whole have much in common with the Loeb tripods both in motifs and style. The tripods were found near Perugia, but were probably manufactured in one of the larger cities to the south. Banti (Tyrrhenica, 1957, p. 89 ff .) believes that they should be assigned to Cerveteri, a solution to which also Thieme inclines, but Riis (Tyrrhenika p. 132) thinks that they cannot have been manufactured without influence from Central Etruria (Vulci). In an effort to locate the Pontic vases the Loeb tripods are without significance.
224. Cf. Hemelrijk's remarks, p. 104, on the Caeretan hydriai as opposed to Etruscan art.

## Catalogue

(A question mark before a sale's catalogue or the like indicates that the present whereabouts of the vase are unknown to the writer. A question mark before the type of vase indicates that the finding-place is unknown.)

1. Munich, Die staatlichen Antikensammlungen inv. no. 837

WAF.
Vulci (Coll. Candelori). Amphora. Height 33 cm .
Shoulder motif: A + B judgment of Paris.
Sieveking-Hackl p. 98, Taf. 33 and Abb. 99. FR Taf. 21. Ducati pl. 1-2. Hampe-Simon Taf. 16,1 and 17,1. Pl. 1-2.
2. Würzburg, Martin von Wagner Museum, Langlotz no. 778. Probably Vulci (Coll. Feoli). Amphora. Height 36.5 cm . Shoulder Motif: A and B walking centaurs.
Langlotz no. 778 and Taf. 227. Ducati pl. 11 b-12. Jacobsthal, Ornamente pl. 10 a.
3. Rome, Vatican, Albizzati no. 231.

Vulci. Amphora. Height 34.8 cm .
Shoulder motif: A and B horsemen.
Albizzati no. 231, figs. 25-28 and tav. 25. Beazley, EVP p. 1 and pl. I, 1-2. Helbig, Führer I, 1963, p. 647 no. 888.
4. Rome, Musei Capitolini inv. no. 95 (nero).

Cerveteri. Amphora. Height 33.5 cm .
Shoulder motif: A and B walking men.
CVA Musei Capitolini di Roma II, IVB, tav. 31-32. Helbig, Führer II, 1966, p. 375 no. 1573.
5. Rome, Musei Capitolini inv. no. 91 (nero).

Cerveteri. Amphora. Height 33 cm .
Shoulder motif: A running women, B running mermen.
CVA Musei Capitolini di Roma II, IVB, tav. 33. Helbig, Führer II, 1966, p. 376 no. 1574.
6. ? (Münzen und Medaillen A.G. Auktion XVIII no. 141).
? Amphora. Height 35 cm .
Shoulder motif: A and B two cocks flanking a lotus-palmette ornament.
Depicted in the auction catalogue.
7. ? (Ars Antiqua A.G. Auktion III no. 113).
? Amphora. Height 34.8 cm .
Shoulder motif: A and B horsemen.
Depicted in the auction catalogue.
8. ? (Münzen und Medaillen A.G. Auktion XXII no. 192).
? Amphora. Height 34 cm .
Shoulder motif: A and B horsemen.
Depicted in the auction catalogue.
9. New York, Metropolitan Museum inv. no. 55.11.1.
? Amphora. Height 35.3 cm .
Shoulder motif: A and B walking centaurs.
The Metropolitan Museum of Art, Bulletin new series 14, 1955-56, p. 127 ff. L. Banti, Die Welt der Etrusker, 1960, Taf. 68.
10. New York, Metropolitan Museum inv. no. 55.7.
? Amphora. Height 35.1 cm .
Shoulder motif: A, women lying on couches, B, walking men and centaur.
The Metropolitan Museum of Art, Bulletin new series 14, 1955-56, p. 127 ff. Hampe-Simon p. 35 ff . and Taf. 12-15.
11. London, British Museum B 57.

The provenance is uncertain. The Museum inventory gives no information. The catalogue from 1851 says Cerveteri, Gerhard says Vulci. Birch (Archaeologia XXX, 1843) states that the place of finding is Cerveteri or Agylla. Amphora. Height 30.9 cm .
Shoulder motif: A Heracles and Juno Sospita, B fighting warriors.
H. B. Walters, Catalogue of the Greek and Etruscan Vases in the British Museum vol. II p. 66 f . JRS III, 1913, p. 60. Hampe-Simon Taf. 6,1. Dohrn, Originale etruskische Vasenbilder?, BJb. 166, 1966, p. 127 and Abb. 15-16. Pl. 8.
12. Copenhagen, Danish National Museum inv. no. 14066. ? Amphora. Height 32.8 cm .

Shoulder motif: A and B fighting warriors.
P. J. Riis, Den etruskiske Kunst ${ }^{2}$, 1962, p. 148-49 and fig. 86.

Hampe-Simon p. 45 ff. and Taf. 16,$2 ; 17,2 ; 18-19$. Dohrn op.
cit. p. 140 ff. and Abb. 28-31. Hampe-Simon, Gefälschte etr.
Vasenbilder?, JbZMusMainz 14, 1967, p. 68 ff. S. J. Fleming and H.S. Roberts, Archaeometry 12, 1970, p.129-131. Pl. 3-7 a.
13. Tarquinia, Museo Nazionale Tarquiniese inv. no. 529.

Tarquinia. Amphora. Height ?
Shoulder motif: A and B sea-monsters.
Ducati pl. 16 a.
14. Tarquinia, Museo Nazionale Tarquiniese inv. no. RC 1051.

Tarquinia. Amphora. Height ?
Shoulder motif: A and B winged horses.
Dohrn no. 85 a. Pl. 34.
15. Tarquinia, Museo Nazionale Tarquiniese inv. no. ?

Tarquinia. Amphora. Height ?
Shoulder motif: A and B silen flanked by two lions.
Dohrn p. 39 no. 85. Pl. 9.
16. Rome, Villa Giulia ? (room 10).

Cerveteri. Amphora. Height 34 cm .
Shoulder motif: A warrior and chariot, B ?
Dohrn, Originale etr. Vasenbilder?, BJb 166, 1966, p. 132 f. and Abb. 24-25.
17. Oxford, Ashmolean Museum inv. no. 1961. 529.
? Amphora. Height 33.8 cm .
Shoulder motif: A and B horsemen.
Archaeological Reports for 1963-64 p. 55 and fig. 13. Pl. 10.
18. Heidelberg, Universität inv. no. 59/5.
? Amphora. Height 35 cm .
Shoulder motif: A warriors, B teams of horses.
CVA Heidelberg, Universität 2, p. 18 ff . and Taf. 55 and 56, $1-3$. Hampe-Simon p. 1 ff . and Taf. $1-5$. Hampe-Simon, Gefälschte etr. Vasenbilder?, JbZMusMainz 14, 1967, p. 68 ff.
19. Paris, Bibliothèque Nationale 172.

Probably Vulci (Coll. Durand). Amphora. Height 33 cm .
Shoulder motif: A Theseus-Minotauros, B arming of warriors.
A. de Ridder, Catalogue des Vases peints de la Bibl. Nat.

I, 1901, p. 77 no. 172. CVA Bibliothèque Nationale I, IIIF, pl. 28,4; 29,2 and $4-5 ; 30,2-3$ and 5.
20. Cambridge, Fitzwilliam Museum G 43.

Vulci. Amphora. Height 30.5 cm .
Shoulder motif: A centaur fight, B warriors fighting a giant. CVA Cambridge Fitzwilliam Museum I, IVB, pl. IX, $1 \mathrm{a}-\mathrm{b}$. Pl. 11.
21. Berlin, Staatliche Museen zu Berlin F 1675.

Tarquinia (Coll. Doria). Amphora. Height 33.5 cm .
Shoulder motif: A and B walking centaurs.
A. Furtwängler, Beschribung der Vasensammlung im Antiquarium 1, 1885, p. 218 no. 1675. J. Endt, Beiträge zur jonischen Vasenmalerei, 1899, Abb. 22. Pl. 12.
22. Cerveteri?

Cerveteri, grave 106 in the necropolis of Banditaccia. Amphora. Height 35.5 cm .
Shoulder motif: A and B walking centaurs.
Monumenti Antichi 42, 1955, p. 538 and fig. 130.
23. London, British Museum B 54.
? Oinochoe. Height 29.3 cm .
Shoulder motif: Animal frieze.
H. B. Walters, Catalogue of the Greek and Etruscan Vases in the British Museum vol. II, 1893, p. 65. Ducati pl. 16 b. Pl. 13.
24. Seattle, Art Museum inv. no. Cs 20.26.
? (Coll. Norman Davis). Oinochoe. Height 30.2 cm .
Shoulder motif: Horsemen.
Amyx p. 121 ff . and figs. 1-7.
25. Naples, Museo Nazionale, Heydemann no. 6488.
? Amphora. Height 35 cm .
Shoulder motif: A and B animal frieze.
JdI 1889 p. 225. Ducati p. 24 group III no. 4. Pl. 14.
26. ? (Rome, market).
? Amphora. Height ?
Shoulder motif: A and B animal frieze.
Dohrn p. 40 no. 88. Pl. 15.
27. London, Victoria and Albert Museum inv. no. 66740.

Cerveteri. Stemmed kyathos. Height 33.5 cm .

Animal frieze.
Dohrn p. 40 no. 90. Pl. 16.
28. Copenhagen, Ny Carlsberg Glyptotek H 146 a.
? Amphora. Height 34 cm .
Shoulder motif: A and B walking men.
P. J. Riis, Den etruskiske Kunst ${ }^{2}$, 1962, p. 148 and Colour

Plate ad p. 160. Etruscan Culture, Land and People, Archaeological Research and Studies Conducted in S. Giovenale and Its Environs by Members of the Swedish Institute in Rome, 1962, pl. 46. Pl. 18.
29. Paris, Louvre E 704.

Cerveteri? (Coll. Campana). Amphora. Height 36 cm .
Shoulder motif: A warrior's departure, B warriors in battle. E. Pottier, Vases Antiques du Louvre, 1897, p. 67 and pl.53. Pl. 20-21 a.
30. Orvieto, Museo dell'Opera del Duomo inv. no. 463.

Orvieto, graves 20-25 in the old excavations at Crocefisso del Tufo. Amphora. Height ?
Shoulder motif: A and B comasts.
NSc 1887 p. 365 and pl. XIII fig. 56. Ducati pl. 3. Pl. 7 c.
31. Orvieto, Museo Faina. Dohrn gives the inventory number 43, on the vase, however, is the number 2665.
Orvieto, Crocefisso del Tufo (following B. Klakowicz, La Collezione dei Conti Faina in Orvieto, 1970, p. 194). Amphora. Height 33 cm .
Shoulder motif: A and B walking men.
Dohrn no. 59. Pl. 22-23.
32. Vienna, Kunsthistorisches Museum inv. no. 3952.

Cerveteri? (Coll. Castellani). Amphora. Height 36 cm .
Shoulder motif: A and B comasts.
K. Masner, Die Sammlung Antiker Vasen und Terracotten im K. K. Oesterreich. Museum, Katalog und historische Einleitung, 1892, p. 21 no. 216 and Taf. III. Pl. 21 b.
33. Rome, Villa Giulia, Castellani 412.

Cerveteri ? Amphora. Height 24 cm , imperfectly preserved.
Shoulder motif: A and B pederastic scenes.
Mingazzini tav. 35, 3 .
34. Fiesole, Museo degli Scavi inv. no. 1132.
? Hydria. Height ?
Shoulder motif: Man flanked by lions and two silens.
E. Galli, Fiesole, i scavi, il museo civico, 1914, p. 98 fig. 81.
35. Paris, Louvre E 695.
? Hydria. Height 40 cm .
Belly motif: Cocks flanking lotus-palmette ornament.
E. Fölzer, Die Hydria, 1906, p. 56 no. 61 and Taf. IV. Payne p. 327 no. 1444 and fig. 21 c . Pls. 24-25 and 7 b.
36. Dresden, Staatliche Kunstsammlungen, Skulpturensammlung inv. no. 135 (incorrectly given as no. 20 in Fölzer and Payne).
? Hydria. Height 40 cm .
Belly motif: Cocks flanking lotus-palmette ornament.
E. Fölzer, Die Hydria, 1906, p. 56 no. 62 and Taf. V. Payne p. 328 no. 1445 . The vase will be published in a coming CVA volume from Dresden.
37. Berlin, Staatliche Museen zu Berlin F 1885.
? (Bought in Naples). Height 24.5 cm , imperfectly preserved.
Belly motif: Groups of fighting animals.
A. Furtwängler, Beschreibung der Vasensammlung im Antiquarium 1, 1885, p. 369 no. 1885. E. Bielefeld, Zur griechischen Vasenmalerei, 1952, p. 6 and Abb. 3. L. Banti, Die Welt der Etrusker, 1960, Taf. 68 below. Pl. 19.
38. Paris, Bibliothèque Nationale 187.

Vulci. Plate. Diameter 20.8 cm .
Hunting scenes.
A. de Ridder, Catalogue des Vases peints de la Bibl. Nat. 1, 1901, p. 95 no. 187 and fig. 11. CVA Bibl. Nat. 1, IIIF pl. 27 and 28.
39. Boulogne-sur-Mer, Musée des Beaux Arts et d’Archeologie inv. no. 158.
? Oinochoe. Height ?
Shoulder motif: Horsemen.
R. de Lasteyrie, Album d’Archeologie des Musées de province pl. 13. AA 1889 p. 186 no. 158. Pl. 27-28.

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Pl. 34. Tarquina, Museo Nazionale Tarquiniese RC 1051. Photo: Gabinetto Fotografico Nazionale no. 91432.

Indleveret til Selskabet den 5. marts 1973
Færdig fra trykkeriet den 26. juni 1974
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Plate 3


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Plate 8





Plate 12


Plate 13













Plate 24



Plate 26



Plate 28


a




Plate 32





# Det Kongelige Danske Videnskabernes Selskab 

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# JENS ELMEGARD RASMUSSEN HAERETICA INDOGERMANICA 

A Selection of<br>Indo-European and Pre-Indo-European Studies

Det Kongelige Danske Videnskabernes Selskab
Historisk-filosofiske Meddelelser 47, 3


Kommissionær: Munksgaard København 1974

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To the memory of my teacher Kaj Barr

## Prefatory Note

The Indo-European studies contained in this collection are sprung from thoughts and theories that took shape in my mind during my years as a student of Comparative Linguistics at the University of Copenhagen through 1971. Their present form crystallized during my subsequent teaching at the Institute of Linguistics in the same city which forced me to weigh the pros and cons in a considerable number of theoretical issues. On many occasions I was lead to seek the justification of a reconstructed paradoxal structure by engaging in the difficult pursuit of analyzing or re-analyzing stages of the linguistic history prior to the period commonly labelled Proto-Indo-European. In these endeavours the linguist must beware of a two-fold danger. On one hand, the advanced age of these linguistic strata makes it very difficult to submit them to methodical scrutiny, given the complete absence of comparative information. This entails, on the other hand, that studies of this kind are often looked down upon in not always quite (if partly) justified contempt, being dismissed as "fantastic", "glottogonic", or the like. It has been my privilege that the latter of these impediments has had little influence on my work. Copenhagen linguists have never been dogmatic, and I hope they never will be. Thus, even if I tentatively adopt the six-laryngeal system of Professor F. O. Lindeman, it merely means that I regard it as a very sober theory accounting for our present knowledge, and not that I ascribe any canonical status of "God's Truth" to it, an attitude that I know I share with Prof. Lindeman himself. Sans comparaison, my theories of Pre-Indo-European linguistic phenomena are likewise to be regarded merely as attempts at assessing what our solutions to a number of problems would be like if we are justified in assuming that the hints we have for our hunches
are pertinent. Tentative research of this kind is no novelty in scientific studies. Neuclear physics and Freudian psychology are other examples of fields of study where the proportions of the conclusions often far exceed the precious material they were based on. The scope of such theories is of course to establish the highest possible amount of simplicity and coherence in the material studied, as is quite beautifully instanced by one of the most famous linguistic theories of this nature, Benveniste's theory of the structure of the IE root.

The kind help and the keen criticism of Professor Hans Hendriksen with whom I discussed the content of study No. I, has saved me many a pitfall. Professors L. L. Hammerich and Jes P. Asmussen of the Editorial Board kindly read the present work in its original heterogenous (Danish, English, and German) version and recommended it for publication in this tighter shape. My English was kept free of the worst barbarisms through the valuable assistance of my friend and pupil Mr. Gerard Muller. To all of these I wish to tender my sincere thanks also in this place.

The work is inscribed to the memory of Kaj Barr, whose pupil I consider myself. My firm rooting in the tradition of Holger Pedersen is due first and foremost to the guidance of Kaj Barr who represented this ideal of philological linguistics so well. It is my hope that the present studies will momentarily prove worthy of paying tribute to this tradition.

## I

## Some Linguistic Universals Applied to Indo-European

It has been a matter of growing concern for linguists working in the field of Indo-European to see how often a structural pattern doomed impossible by the evidence of the "universals in language" was exactly congruent with the solution generally arrived at for Proto-Indo-European. The present paper will discuss a few of these strange cases where IE apparently shows features of a kind that languages are just not found to have. The exposé will aim at demonstrating that one such structural monstrosity need not worry us all the same, while a number of others can be done away with by a certain amount of analyzing.

## 1. The One-Vowel System and the Sanskrit Evidence

The most remarkable feature of IE as reconstructed by the more daring adherents to the "laryngeal" theories is the onevowel system. One of Uspenskij's rules ${ }^{1}$ goes when read in words: "It is probably universally valid that languages do not have less than two different vowel phonemes'". Uspenskij cites three languages as possible exceptions, viz. Aranta, Abaza, and this very reconstructed Indo-European. For none of these this has remained undisputed, and so the non-validity of the rule is far from proven.

However, I think we may add one well-known language to the list, as I see no other way of analyzing the vowels of Sanskrit ${ }^{2}$ than
${ }^{1}$ B. A. Uspenskij, Strukturnaja tipologija jazykov, Moskva 1965, p. 187 at the top. Uspenskij's rules are given in a formulaic notation here transposed into plain words.
${ }^{2}$ Or perhaps rather of Old Indo-Iranian on the whole, the Avestan and Old Persian facts being, to the extent that they are known, in perfect agreement with the analysis here proposed for Sanskrit. I will not exclude the possibility that also the Luwian branch of Anatolian may comply with this analysis, the basic requirement being the coalescence of IE ${ }^{*} e,{ }^{*} o$, and ${ }^{*} a$.
to reduce the whole list to one vocalic element, plus a variety of consonants that the language has anyway.

Sanskrit has the following vowel phones: $[a],[e],[o],[i],[u]$, $[\bar{a}],[\bar{l}],[\bar{u}],[r],[\bar{r}],[l]$, plus the diphthongs [ai] and [au]. It can be shown that none of these contains any other vowel phoneme than $|a|$, as is seen from the phonemic interpretation of the vocalic graphs given below.
[a] may be rewritten $|a|$
$[e] \rightarrow|a y|$, being the anteconsonantal allophone of the $[a y]$ found before vowels

| $[o]$ | $\rightarrow$ | $\|a v\|$ as the anteconsonantal alternant of |
| :---: | :---: | :---: |
| $[a v]$ |  |  |

$[u] \rightarrow|v|$ as the anteconsonantal alternant of $[v]$
$[\bar{a}] \rightarrow|a a|$, cf. $-a+a->-\bar{a}-$ by synchronically active rule of sandhi and wordcomposition
$\left.\begin{array}{lll}{[\bar{l}]} \\ & \rightarrow & \mid y y / \text { since never opposed to [yi], [iy], or } \\ {[y y]}\end{array}\right] \left.\begin{gathered} \\ {[\bar{u}]}\end{gathered} \rightarrow \quad \right\rvert\, v v /$ since never opposed to $[v u],[u v]$, or [ $v v$ ]
$[r] \rightarrow|r|$ vocalized between consonants
$[\bar{r}] \quad \rightarrow \quad \mid r r /$ never opposed to $[r r],\left[{ }_{\sigma} r\right]$, or $[r r]^{3}$
[l] $\rightarrow \quad \mid l /$ vocalized between consonants
$[a i] \rightarrow|a a y|$, being the anteconsonantal alternant of the $[\bar{a} y]$ occurring before vowels; furthermore, the rule $-a+$ $e->-a i-$ of sandhi and word-composition is then phonemically $|-a|$ $+|a y-|>|-a a y-|$
$[\mathrm{au}] \rightarrow|a a v|$, being the anteconsonantal alternant of antevocalic [ $\bar{a} v]$; again, $-a+o->-a u-$ in sandhi and wordcomposition is phonemically $|-a|$ $+|a v-|>|$-aav $|$.

[^6]In all of the above formulae the term consonant includes wordboundary. The vocalization of $/ r /$ in preconsonantal initial position (rtá-) is thus perfectly regular, as are vocalized sonants in wordfinal position (neut. śúci, mádhu and the like). ${ }^{4}$

As is seen from the table, no Sanskrit vowel demands the acceptance of another purely vocalic element. Nor does this interpretation demand any consonantal phoneme not found in the language beforehand: Sanskrit has $|y|,|v|,|r|$, and $|l|$ as indisputable consonants anyway. What is more, with a few seeming exceptions to which I shall revert below, it appears that no matter how any of these "sonants" are grouped together with or without the vowel $\mid a /$, there is always only one possible phonetic outcome. Thus for an underlying form /vyvyday/ the only possible reading is [vivide] ( $3^{\text {rd }}$ sg.pf.mid. of vid- 'find') arrived at in the following way: The second $\mid y /$ is clearly anteconsonantal and so vocalized to $[i]$; this makes the second $\mid v /$ antevocalic and therefore consonantal; the resulting $[v]$ vocalizes the first $/ y /$, in front of which the initial $/ v /$ is kept consonantal. No other solution would meet the requirements of the reading conventions of the underlying phonemes grouped in this way.

It is perhaps just a matter of taste how far the alternations within the language should be taken into account in phonemic interpretations like these. In the present paper this will be done in one further instance where it will prove useful. It must be maintained that the $[\bar{a}]$ alternating with $[i]$ and zero as it does in the verbal forms á-dhā-t:dhi-ṣvá : da-dh-úr (radical aorist $3^{\text {rd }}$ sg.act. ind. and $2^{\text {nd }}$ sg.mid.ipv., and $p f .3^{\text {rd }}$ pl.act.ind., all from $d h \bar{a}-$ 'put') is a vowel different from the $[\bar{a}]$ arising of, say, $a+a$ in composition and sandhi. Now this alternation is open to further analysis: $[\bar{a}]$ is the full grade (guna), $[i]$ and zero are the anteconsonantal and antevocalic variants respectively of the zerograde, just as á-kar: kroṣvá : ca-kr-úr (the same forms of kr- 'do’, full grade kar-) alternate. As is seen (and it is a well-known fact in IE linguistics), the root $d h \bar{\alpha}-$ is analyzable into the same structure as kar-, i.e. CaC alternating with CC. This analysis is achieved in rewriting $[d h \bar{a}]$ as $/ d h a X \mid$, where $|X|$ is a consonant invented for

[^7]a start just to account for this, but it will be argued below that we would need it anyway. About $|X|$ we know this: $|a X|$ is phonetically realized as a long vowel [ $\bar{a}$ ] before consonants, $|X|$ is $[i]$ between consonants and zero before a vowel. Thus we have two long vowels $[\bar{a}]$, one from $|a a|$, the other from $\mid a X /$.

An apparent opposition between $[u]$ and $[v]$ is seen in uras'breast' and uróh, gen. of urú- 'broad', vs. vrajati 'he wanders'. All of these should be rewritten /vra-/ according to the above rules, and for one of the solutions [ur-] and [vr-], then, this analysis is wrong.

This riddle is easily solved if we assume that [vra-] is the normal realization of initial /vra-/. Then [ura-] must have had its $\mid v /$ vocalized between consonants, and we will have to assume an initial consonant in front of the [u]:|Xvra-/. The pronunciation is now fully in accordance with our rules concerning $|X|: 1$. It behaves structurally like a consonant, hence $|v|$ is vocalized between it and the consonantal allophone of $|r| .2$. It goes to zero before a vowel, including vocalized sonants as in $d a-d h-u ́ r$, and so [Xura-] yields [ura-] in the end. This is much simpler than assuming something special for the case of vrajati, since we merely have to apply the rules accepted for the alternating root forms of $d h \bar{a}-$ above. Into the bargain we get an initial consonant in $/ X v r v S /$, gen. |XvravS/5 (> urúḥ, uróḥ) matching the prothetic vowel of Greek $\varepsilon v ̉ \varrho v ́ s ~ ‘ b r o a d ’ . ~$

Instances of a seeming opposition between $[i]$ and $[y]$ can be accounted for in the same way. The desiderative stem of the verb $y \bar{a}$ - 'go' forms an abstract noun yiyās $\bar{a}$ 'desire to go', while the verb $i$ - of like meaning has a perfect $3^{\text {rd }}$ pl. īyúr. Here we clearly have antevocalic [yiy-] opposed to antevocalic [ $\bar{l} y-]$ and it would be wrong to rewrite both as /yyy-/. This is readily solved if we consider a few other forms of the verbs in question. Of $i$ - the imperfect has the $3^{\text {rd }} \mathrm{pl}$. áyan and the perfect the quoted īyúr, both exhibiting a lengthening of a vocalic element prefixed to the radical (augment and reduplicative vowel). No such lengthening is seen in the corresponding forms of $y \bar{a}-$, cf. $1^{\text {st }} \mathrm{sg}$. ipf. $\dot{a}-y \bar{a} m$ ( $3^{\mathrm{rd}} \mathrm{pl} . \dot{a}-y u r$ ) and $3^{\mathrm{rd}} \mathrm{pl}$. pf. ya-yúr. Now we can account for this difference by writing in the $|X|$ : áyan is then

[^8]$|a-X y-a n|$, and $\bar{\imath} y u ́ r ~ i s ~|X y-X y-v S|$, while áyām, áyur, yayúr are $|a-y a X-m|,|a-y X-v S|,|y a-y X-v S|$. Hereby we get the normal root structures /Xay-/ (for $i-$ ) and /yaX-/ (for $y \bar{a}-$ ), which in turn allows us to rewrite yiyāsā as |yy-yaX-saa|. Thus, no two forms presuppose different pronunciations of the same underlying phoneme sequence.

With this in mind it will be tempting to analyze the problematic middle forms ílyase and ĺyate (from $i$ ) as thematicized variants of reduplicated presents comparable to forms like píbati (from $p \bar{a}-$ ‘drink’) and tíșṭhati (from sth $\bar{a}-$ 'stand’). The meaning of these forms circulates around 'go regularly', frequently used of Agni as the messenger to the gods, and so it seems justified to see an iterative or intensive force in the reduplication, as it has been pointed out by Elizarenkova ${ }^{6}$ for a number of verbs of this type. The underlying forms are then $|X y-X y a-s a y|$ and $\mid X y$-Xya-tay| respectively.

This is of course merely the laryngeal theory stated synchronically. However, Sanskrit itself does here and there demand the positing of a non-pronounced consonantal element to account for such vocalizations as súar /sXvar/ 'sun' (the initial cluster accounting for the disyllabic pronunciation in pursuance of the SieversEdgerton Law) and tanúam |tanvXam/, acc. of tanút-s /tanvXS/ 'body'. ${ }^{7}$ Some seeming anomalies thus become regular forms.

Hereby the last objections to the one-vowel system of Sanskrit are in my opinion ruled out. This in turn has its implications for Proto-Indo-European. It will be seen that it is methodically wrong to reject in IE pre-ablaut vowel system comprising nothing but the one element $* e$ as a sheer impossibility, claiming that the world does not know of any such language. We do have such a language, and it has been right here before our very eyes all the time.

[^9]
## 2. The Indo-European System of Plosives

The IE system of stops as reconstructed in the traditional fashion with special attention to the Sanskrit evidence contains four modes of articulation, viz. *t: *d: *th. Now laryngeal theory has made it clear that *th is in fact nothing but the * followed by a laryngeal. This leaves us with only three independent articulations: *t: *d: *dh. However, as pointed out by Roman Jakobson, no language is found to possess aspirated mediae without having at the same time the aspirated tenues of the respective articulations, *th in the case of the dentals. ${ }^{8}$ Therefore, something is wrong with the series $* t: * d: * d h$, and its elements cry out for reinterpretation.

In 1957 Andreev tried to periodize the troubles away ${ }^{9}$ and posited the following successive stages in the development of IE itself:

| 1. Early IE | $T T: T: t=($ gemi <br> tic: em tenuis) |
| :---: | :---: |
| 2. Intermediate IE | $T: t: t h+x$ |
| 3. Late IE | $T: t: t h+\mathrm{h}$ |
| 4. Traditional IE | $t: d: d h+a \sim \emptyset$ |

This only made things worse. No language is known to manage the two-fold opposition of intensity and of aspiration in its stops. ${ }^{10}$ This rules out stages 2 and 3 . Equally unheard-of are three degrees of stop intensity as demanded by stage $1^{11}$, nor does any language have an opposition of aspiration without possessing an $h$ at the same time, which is just another reason for rejecting stage $2 .{ }^{12}$

[^10]One of the last writings from the hand of Holger Pedersen contained thoughts on previous stages of the IE system of plosives (1951). ${ }^{13}$ Pedersen drew attention to the blank in the system where a $* b$ is lacking. As $b$ 's are not known to vanish more readily than other consonants, whereas many languages are known to have lost or weakened $a * p$, Pedersen inferred that the phoneme lost was not an $\mathrm{IE} * b$, but rather a Pre-IE $* p$. His argumentation is a sober one, and one cannot but accept his theory of a sound shift whereby Pre-IE (**p) **t **k . . were shifted to $\varnothing * d * g \ldots$ with an empty space for $* b$, because the older $* p$ had already vanished before the shifting.

Pedersen went further in his argumentation and posited two more sound shifts: ${ }^{*} b d * g \ldots>p * t k \ldots$. . and ${ }^{*} p h * t h$ *kh...> *bh*dh*gh... But this is unacceptable, and the weightiest objection comes from Pedersen himself. Writing in 1904 on the relation between the West Armenian dialects and those of East Armenian, where one group has $b d g$ corresponding to $p t k$ of the other and vice versa, he stops to wonder, "Wie ist es möglich, dass tenuis zu media und media zu tenuis wird, ohne dass die laute unterwegs zusammengefallen wären? Meiner ansicht nach ist dies einfach unmöglich',. ${ }^{14}$ This observation is ingenious and self-evident, and his attempts at getting around it in 1951 are very far from convincing. Therefore, if $\varnothing * d * g$ go back to (**p) ****k as they probably do, then IE ${ }^{*} * t * k$ cannot be from older $* b * d * g$, nor can they of course have been $* p * t * k$ all the time.

I then regard it as the simplest solution to derive ${ }^{*} t * d * d h$ from Pre-IE ${ }^{* *} T{ }^{* *} t d$ respectively, $T$ being a cover-symbol for any emphatic stop however phonetically realized (glottalized, pharyngealized, or just stronger). The shifting can then be described as one single slide towards a weaker and looser articulation and does not presuppose simultaneous tendencies of incompatible natures. The oppostiton between emphatic and plain articulation becomes one between the voiceless fortes and the voiced lenes, while the contrast between voiced and voiceless becomes one of

[^11]aspirated and non-aspirated articulation. This has the advantage of avoiding aspiration at the oldest stage, where we can then do without the $/ \mathrm{h} /$. Likewise we avoid the absurd situation of coalescense that would arise if we developed $* d$ from ${ }^{* * t}$ and $* t$ from $* * d$.

This leads us to positing the following Pre-Indo-European system of plosives, here presented together with their resultant Late IE counterparts :
$\left.\begin{array}{lll}P & (p) & b \\ T & t & d \\ \hat{K} & \hat{k} & \hat{g} \\ K & k & g \\ K^{w} & k^{w} & g^{w}\end{array}\right\}>\left\{\begin{array}{llll}p & & b h & (+p h<P H) \\ t & d & d h & (+t h<T H) \\ \hat{k} & \hat{g} & \hat{g} h & (+\hat{k} h<\hat{K} H) \\ k & g & g h & (+k h<K H) \\ k^{w} & g^{w} & g^{w} h\left(+k^{w} h<K^{w} H\right)\end{array}\right.$

Now Milewski has tried to demonstrate a sound shift for Hittite whereby $* * d * d h$ should have yielded a two-fold opposition between an emphatic member $T$ (from *t) and a plain stop $t$ (from $* d$ and $* d h$ ). ${ }^{15}$ This in combination with the fact that no aspirated surds have developed from tenuis + laryngeal in Hittite, looks at first glance like a good argument in favour of the IndoHittite hypothesis. It will be seen that it is much easier to derive Hittite $T: t$ from Pre-IE ${ }^{* *} T$ and ${ }^{* *} t \mid * * d$ respectively than to start from IE $* t$ vs. ${ }^{*} d / * d h$. Thus Hittite seems to presuppose the older stage of IE and has probably never known the intermediary stage traditionally labelled "Indo-European". However, the details and the implications are probably somewhat different from what is generally accepted by the adherents of this theory. ${ }^{16}$
${ }^{15}$ T. Milewski, "La mutation consonantique en hittite et dans les autres langues indoeuropéennes", Archiv orientálni XVII, pars II, 1949. The same theses are presented in the posthumous article "Die Differenzierung der indoeuropäischen Sprachen" in the Lingua Posnaniensis, vol. XII/XIII of 1968. It may be worth while to stress that Milewski was probably not right in his historical evaluation of the Hittite facts. Finding real or postulated sound shifts only in languages on the outskirts of the IE linguistic area, he inferred that these consonant changes must be due to influence from neighbouring non-IE languages. However, the usual relation between center and periphery is the opposite of this, and already on the surface of it it seems more satisfactory to see something old and well-preserved in these peripheral phenomena.

16 The Hittite sound shift conjectured by T. V. Gamkrelidze in the article 'Peredviženie soglasnych v chettskom (nesitskom) jazyke', Peredneaziatskij sbornik, Moskva 1961, p. 211-291, is untenable. Gamkrelidze takes Hittite -pp-/-bb-, -tt-/-dd-, $-k k-/-g g-/-q q$ - to represent aspirated stops: $\left[p^{h}\right],\left[t^{h}\right],\left[k^{h}\right]$, developed from IE ${ }^{*} p$, $* t, * k$. His arguments are above all based on spelling inconsistencies such as tetkissar for the usual tethessar, hameskanza for hameshanza, and É kilamni for É hilamni (p. 244). These are as weak and inconclusive as are the forms of the paradigm of the word for 'water' presenting an unexpected -tt- for IE * $d$, which Gamkrelidze rejects

It seems to me that Hittite is not the only language occupying such a lateral relationship, if not to IE then at least to the traditional system of plosives. It will also be simpler in the case of Armenian to derive the historical reality from our Pre-IE than by starting on purely traditional grounds. In that case

$$
\begin{array}{lllll}
P & (p) & b & h / \varnothing & (p) \\
T & t & d & b^{h} \\
K & k & g & k^{h} & k
\end{array} g^{h}
$$

while $* P H * T H * K H$ yield $p^{h} t^{h} x$.
The difference between the two Armenian series $h / \varnothing t^{h} k^{h}$ and $p^{h} t^{h} x$ cannot be derived from the traditional series "*p" "* $t$ " "*k" and "*ph" "*th" "*kh". Between "*p" and h/ Ø we would have to assume the intermediary stages $*^{h}>{ }^{*} p^{f}>* f$, which would be the only natural line of development that I could think of. But stating at the same time that "*ph" has remained an aspirated $p$ is the same as asserting that the development of one phone has overtaken and passed another without leading to the coalescence of the two. We must think of a way whereby "*p" and "*ph" do not go through the same intermediary stage, and since we know that *ph is from older *pH it would seem justifiable to assume that this cluster did not become an aspirated stop until the development of "*p" had already left this transitionary stage. The development of Arm. $h / \varnothing$ and $p^{h}$ could then be traced as follows, dots denoting the unbroken retention of the older phonetic values:
(p. 247) because they "are found only in isolated instances in late texts and do not overthrow the picture of a regular spelling". Secondly, the theory hinges on a few strange-looking etymologies like Hitt. halzāi- 'call': Greek $\varkappa \alpha \lambda \varepsilon ́ \omega ~(p . ~ 243) ~ a n d ~$ harsanis, gen. harsnas 'head': Skr. śíras, gen. śirrṣnás (p. 240). As the Hitt. counterpart of Greek $\chi \alpha \lambda \varepsilon \dot{\varepsilon} \omega$ is probably kalles- 'call', the first of these is probably wrong, and the etymologies operating with IE initial laryngeals are presumably normative also for these words. But there is one major reason why the theory of aspiration must be wrong. If the cluster ${ }^{*} t H$ before ${ }^{*} i$ becomes an aspirated $\left[t^{h}\right]$, written $-t t-l-d d-$, as is presumed by Gamkrelidze (p. 237), then the assibilation of *ti to what is written $z i$ must be older than the spontaneous aspiration of $* t$, which would otherwise have lead to the coalescence of ${ }^{*} t i$ and ${ }^{*} t H i$ into either $\left[t^{h} i\right]$ or $[t s i]$. The development ${ }^{*} t i>z i$ is restricted to Hittite, the Luwian group preserving $t i$ unchanged, and so Gamkrelidze is lead to assume that the Hittite aspiration is a Hittite innovation not shared by the other Anatolian languages, and only on this assumption is his theory tenable. But the assumption is wrong. Sturtevant's Law is as valid for Luwian as it is for Hittite: Luw. happinatt- 'riches' : Hitt. happinant'rich' (cf. the $p$ of Lat. ops), but aduna 'to eat' : Hitt. adanna (cf. $d$ in Lat. edō, etc.). Whatever the exact phonetic nature of the sound shift, then, it is of Common Anatolian date.

$$
\begin{aligned}
& h / \emptyset<f<p^{f}<p^{h}<" p " \\
& \cdots \cdots \cdot p^{h}<\ldots p H<" p h "
\end{aligned}
$$

We have, then, a contrast between $p^{h}$ and $p H$, whatever the exact phonetic value of $H$. This places the retention of laryngeals relatively late in Armenian, and so we must ascribe to Pre-Armenian Indo-European a pronunciation of the laryngeals different from a mere $[h]$. Now, since the laryngeals had a stronger effect on "* $k$ ", which was spirantized to $[x]$, than they had on "*p" and " $t$ ", which were merely aspirated, the laryngeal must have been a sound or a group of sounds better suited to influence a velar stop than it was to affect a labial or a dental one. As we were lead to assume the stages ... [pf]>[f]... in the development of "*p" it would seem to me that we are safe to assume the same for " $k H^{\prime}$ ", i.e. $\left[k^{x}\right]>[x]$. This could be summarized in a soundlaw stating that at some stage of the Armenian linguistic history homorganic groups of stop + spirant (affricates) were changed into spirants, whereas heterorganic groups show other results: $p^{f}>f, k^{x}>x$, but $p^{x}>p^{h}$ and $t^{x}>t^{h}$. This reveals the laryngeal that affected the * $k$ as a velar spirant $[x]$. Whether Armenian had only one laryngeal at this early stage or a number of similar phones as well, is impossible to know. All we can say is that no indication exists of more than one such spirant.

Thus, Armenian presupposes the stage of Indo-European with retained velar fricatives, that is to say, the stage before $* b h * d h$ ${ }^{*} g h$ etc. and ${ }^{*} p h * t h * k h$ etc. developed out of $* * b * d * * g$ etc. and **Px **Tx **Kx etc. respectively. What is more, Armenian did not go through the stage *bh*dh*gh . . *ph *th *kh . ., and so this stage only developed in part of the IE languages. This amounts to stating the theory that the "Armenian sound shift"' is not a sound shift at all, but rather a marginal retention of the old phonetic values, while the system of plosives required to account for the majority of IE languages represents a common innovation.

Now the similarity between the Armenian and the Germanic sound shifts has long been considered a strange coincidence. It is hard to see which of the two systems of plosives is presupposed by the Germanic facts. When Pre-IE ${ }^{* *} T * t * d$ develops into Gmc. $p t d$ (or $\delta$ ?) there is little to prevent it from going through the traditional IE * $t d * d h$. The to-and-fro development of $* * t>* d>$

* $t$ is no less possible than, say, that of Pre-IE **e $>\mathrm{IE} e:$ : $o: * a>$ Indo-Iranian *a. However, nothing really compels us to accept the transitionary stage of traditional IE. We do not know with certainty that the Gmc. *t was ever voiced or whether Gmc. *d was ever aspirated. The assumption that Gmc. *d was probably a spirant [ $\delta]$, since the voiced alternant of * $b$ could come to coincide with it in pursuance of Verner's Law, does not require an aspirated *dh of IE date any more than Gmc. * $p$ does an IE *th. So it seems to me that we are free to choose between ${ }^{* *} T{ }^{* *} t * d$ and $* * d * d h$ for the origin of Gmc. $p t d$. Occam's razor then perhaps bids us to assume the unbroken retention of at least $t$ if not of both $t$ and $d$ as a simpler solution than an all-round sound change.

I would then summarize the above ideas as follows. The traditional IE system of plosives, e.g. ${ }^{*} * d(* t h) * d h$ can be held to represent a dialectal innovation upon the Pre-IE ** $T * t * d$. This appears to be necessary for Anatolian and Armenian and a little bit simpler for Germanic than the traditional system. The old values of the stops were preserved in the marginal regions that did not take part in the innovation common to Indo-Iranian, Greek, Italic, Celtic, Balto-Slavic, and Albanian. Thus Anatolian and Armenian and possibly Germanic do not have any sound shift, being the only well-documented languages (possibly together with Tocharian) that did not participate in the Central Indo-European sound shift.

As I was working out the above I came across the article by V. M. Illič-Svityč on the "Sootvetstvija smyčnych v nostratičeskich jazykach", published in the annual Étimologija of 1966 (publ. 1968), and I was happy to see that the late leading figure of Soviet nostratistika had, on purely comparative grounds, arrived at the "Nostratic" system of plosives which he exemplified with the dentals $* t * * d$ as the source of IE * $t d * d h, * t$ being an emphatic stop of alleged glottal coarticulation (and the origin of the pharyngealized emphatic $t$ of Arabic as well). This is remarkably congruent with the system posited above for Pre-Indo-European, and though I claim no competence in Nostratic matters I gladly welcome this comparative analysis as some affirmation of my own analysis which was based partly on reasons of linguistic universals, and partly on a reconsideration of some seemingly inconsistent developments in Armenian.

## II

# Glottogonic Reflections on the Indo-European Personal Endings - in the Light of some Arctic Parallels 

## (Paper read before the Linguistic Circle of Copenhagen on March $28^{\text {th }} 1972$ )

The lecture that I intend to deliver to you to-night is, despite the bombastic title, in fact quite unpretentious. I readily admit that "glottogonic" speculations have an innate tendency of losing their way into the mists of uncontrollable hypothesis-making. It is to be admitted, too, that outside parallels supply only very weak evidence in matters of linguistic reconstruction. However, if treated with caution they constitute a source of inspiration that is not to be underestimated. It is precisely a manifestation of this caution when I present the case to this forum hoping that the subsequent debate will contribute to throw light on questionable points in what follows. ${ }^{1}$

By "glottogonic" reflections I mean such reflections as seek to invent a linguistic system - a language type, if you like - out of which a known, preserved or reconstructed, linguistic stratum can be deduced by application of the common rules for the development of language systems (i.e. above all by sound-law, analogy, and derivation). The pivotal point is in the word "invent", as we cast our minds back to a stage of the linguistic history which is not reached by comparative reconstruction proper. We find ourselves left with a more or less well-defined reconstructed Indo-European and want to know something about its previous stages. It is quite

[^12]possible that a Pre-Indo-European will eventually become accessible to normal comparative reconstruction when the posthumous "Nostratic" dictionary by Illič-Svityč is published in the near future. ${ }^{2}$ The preliminary studies already published must be described as very promising, but are only concerned with the phonology. Although I must declare my incompetence in Nostratic matters I will find it interesting to see how well or how poorly the attitude expressed in the present paper will match the Nostratic findings. Until then Indo-European itself is all we have to work on.

We are, then, dealing with what has been called "internal reconstruction". One might as well speak of "typological" or "structural reconstruction", this approach involving the following clues:

1. The reconstructed proto-language may prove itself to be wrong beyond question by violating some universal law. If an as yet unheard-of phenomenon has been "reconstructed" we have grounds for the suspicion that further analysis centering around this point will be particularly rewarding.
2. Asymmetrical points of structure where a given form is isolated and "irregular" are in the main explainable by the assumption that the anomaly represents the last remnant of an old system given up by the rest of the forms.
3. Forms showing no synchronically functional interdependency may sometimes present mutual morphological correspondences of a nature that calls for an explanation. They may be the ruins of an old construction in which the units now redundantly marked entered into a meaningful network of interrelationships. If, e.g., a given language has more case-endings than case-functions, this may be due to the previous existence of a larger number of functional contrasting cases.

It is in cases like the last-mentioned that the working with parallels may have the greatest importance by demonstrating that the system postulated by this type of reconstruction can in fact be made up of the elements concerned. There is nothing particularly suspicious about linguistic parallels; they should just not be overestimated. Reconstruction of linguistic systems is normally

[^13]practised without the adducing of parallels. However weak a verification there is to be seen in the possibility of citing languages exhibiting the same behaviour, it will never directly weaken the argumentation.

Previous stages of a given language do not necessarily show any typological harmony with the later historical development of that language, and in the case of Indo-European one must in a large number of cases go outside this linguistic family for inspiration as to stages preceding the immediate proto-language. It has already been demonstrated on several occasions that the linguistic type characterized by "ergative" sentence structure comes very close to the most reliable ideas of Pre-Indo-European. This is where we find the opposition of active and inactive in the noun as well as in the verb, just as it has been postulated for Indo-European ${ }^{3}$. Specimens of this type are Eskimo and Aleut, and the following is a series of observations done during the study of Greenlandic (together with other Eskimo languages and, on a more limited scale, Aleut), where I was struck by some further quite unexpected structural correspondences between these languages of Arctic America and Indo-European or its predecessor.

## 1. The pronoun "I" in Indo-European and Eskimo

The IE proto-form of the pronoun "I' may be reconstructed as *e $\hat{g} e H_{3} m$ alternating with $* e \hat{g} H_{3} o m$, preserved in Greek $\varepsilon \gamma \omega \omega$ and Sanskrit ahám respectively. ${ }^{4}$ These forms are open to a certain amount of further calculation.

The alternating component is merely ${ }_{-} \hat{\hat{g}} e H_{3^{-}} \sim^{*}-\hat{g} H_{3^{-}}$which must therefore be the root entering into a base I and a base II respectively. The initial *e- (perhaps to be refined to ${ }^{*} H_{1} e$ - if

[^14]vocalic initial is excluded in the language) is probably the sentence connective known as the augment ${ }^{5}$ and as a fossilized initial element in conjunctions and pronouns like Lat. e-t, e-quidem, Greek $\hat{\varepsilon}-\varkappa \varepsilon \tilde{\imath} v o s=$ Doric $\kappa \tilde{\eta} v o s$. The final *-(o)m may safely be identified with the homophonous verbal personal termination. We have, then, the structure connective particle + root + personal ending.

To identify the root, it will be natural to look among the pronominal stems for a root of the proper deictic nature. We must here bear in mind that IE $* \hat{g} h$ - as well as the alternation $* \hat{g} \sim * \hat{g} H-$ according to Ivanov $^{6}$ develops into an Anatolian phoneme represented by Hittite $/ k /$ and by zero in the Luwian dialect group. There is in fact an Anatolian pronoun exhibiting this alternation in initial position, viz. Hitt. $k \bar{a} s$, neuter $k \bar{l}$ "this one", to which Hieroglyphic Luwian has $\bar{\imath}-.{ }^{7}$ The deixis is that of the first person, so the adverbs Hitt. $k \bar{a}$, Hier. Luw. ìti mean "here", the pronominal root being probably the same as in Lat. hi-c, hi-c showing the aspiration, while the palatal nature of the plosive is borne out by the particles Skt. hí, Avest. zī "namely". ${ }^{8}$

[^15]An exact parallel, i.e. a form of the pronoun "I" that is unquestionably to be interpreted as pronoun of first-person deixis + personal ending, occurs in Eskimo. In Greenlandic ' I " is uvanga /uaja/, and from the Western Eskimo linguistic area one may cite Čaplinian ${ }^{9}$ xwaya. As far as the phonological history is transparent, one would accept these two forms as the proto-forms of East Eskimo and West Eskimo, respectively. The deixis of nearness inherent in this pronoun stems from the underlying demonstrative which otherwise appears as Greenl. uva- "the one I'm pointing at", e.g. locative uvane "there, here"; likewise in Čaplinian we find the demonstrative exclamation xwa "look here! come here! now!'" with the locative xwani "here where I am pointing'". The termination is identical with the 1 st singular ending of an intransitive verb of a principal clause showing - !a in all dialect areas: Greenl. aki-vu-nga, Čapl. aki-qu-ŋןa "I pay" (-vu- // -qu-being the mark of the intransitive indicative).

We find, then, in IE and Eskimo a pronoun for the first person singular with the structure demonstrative stem with deixis of nearness + personal ending of the $1^{\text {st }} p . s g .{ }^{10}$ We shall now look at some further implications of this finding.

## 2. The First Person Singular in the Indo-European Verb

Besides the ending *-m, IE possessed two further morphemes of the $1^{\text {st }}$ p. sg., viz. ${ }^{*}-\bar{o}$ of the thematic present and ${ }^{*}-a$ (in laryngealist terms ${ }^{*}-\mathrm{H}_{2} \mathrm{O}$ or ${ }^{*} \mathrm{H}_{2} e$ ) of the perfect.

Eskimo, too, has at its disposal two more endings of the $1^{\text {st }}$ sg., besides the ${ }^{*}-\eta a$ of the intransitive principal clause, viz. ${ }^{*} k a$ ( $>$ Greenl. -ga, Čapl. -ka) of the transitive principal clause and
${ }^{9}$ Main dialect of Siberian Eskimo. Čaplinian forms have been cited from the writings of G. A. Menovščikov, Grammatika jazyka aziatskich ëskimosov, I (MoskvaLeningrad 1962) (pronoun "I'’ p. 249f), II (Leningrad 1967); "Éskimosskij jazyk", Jazyki narodov SSSR, č. V (Moskva-Leningrad 1967), p. 366-385. Rubcova's $\dot{E s k i m o s s k o-r u s s k i j}$ slovar' (Moskva 1971) appeared too late to be used in drafting the present paper.
${ }^{10}$ Some Eskimo dialects show irregular truncated by-forms: Naukanian (Siberia) and Kuskokwim (SW-Alaska) wi beside wina (see Menovščikov, Grammatika I, p. 248). This is parallelled by such shortened IE forms as Old Lith. eš, Arm. es (preconsonantal sandhi variant of $e c c<\mathrm{IE} * e \hat{g}(-)$, cf. Meillet, Esquisse ${ }^{2}$, p. 57). Greek $\dot{\varepsilon} \gamma \omega$ ' and Lat. ego (from older *egō with "iambic" shortening) may be explainable in the same way as the verbal ending ${ }^{*}-\bar{o}$ discussed in the following. Hittite /uk/ seems to have inserted an enclitic particle ${ }^{*}-u$ - between the connective ${ }^{*}\left(H_{1}\right) e$ - and the truncated pronoun, the form ${ }^{*} e-u-\hat{g} H(o m)$ being parallel to Greek oṽ̃os (*so-u-tos)

-ma (preserved in this shape all over the linguistic map) in the verb of dependent clauses. The two last-mentioned morphemes recur with an opposition of case as marks of possession in the noun ("my . . ."), *-ka being the inergative (also called "absolute", "intransitive", or "independent") and -ma the ergative ("relative", "transitive", or "dependent" in other terminologies). Thus, the relation between the three terminations is the following: $-\eta a$ is intransitive and non-possessor, - $k a$ is transitive and possessor of the intransitive, -ma is possessor of the transitive.

The other persons (discounting the $1^{\text {st }} \mathrm{pl} .^{11}$ ) present no opposition corresponding to that of $-\eta a$ and $-k a$, i.e. between nonpossessor on one hand and possessor of the intransitive on the other. This system of three fundamental endings for the $1^{\text {st }}$ person against two for the other persons is common to all Eskimo dialects known to me.

Likewise, IE has three different forms for the first person (*-m, *- $\left.{ }^{*},{ }^{*}-H_{2} e\right)$, but only two in the rest (*-s: *-t $H_{2} e,{ }^{*}-t:{ }^{*}-e$, *-nt :*-r), and it is natural to raise the question whether there exists any parallelism between the IE and the Esk. triads also in regard to function.

To investigate this question we shall tentatively accept an answer in the affirmative to see whether this assumption will lead us to further results.

The assumption of a syntactic correspondence must depart from the $1^{\text {st }}$ sg., since only this shows a maximum differentiated picture in both linguistic groups. From the personal pronoun *e- $\hat{g} H_{3} o-m=x w a-\eta a$ it appears that Esk. - $\quad$ a is the functional counterpart of IE ${ }^{*}-m$. In that case ${ }^{*}-m$ should be in origin the mark of complete intransitivity, used "absolutely" with no involvement of any other person in the verbal process. This appears bewildering at first glance, as it is the Hittite hi-conjugation, and not the mi-conjugation, that has won a certain amount of half-

[^16]hearted acceptance as the true descendant of an old intransitive verbal category. ${ }^{12}$ I shall, however, try to demonstrate that it is rewarding to stick to the correspondence with Eskimo and, in so doing, reinterpret the functional system postulated for IndoEuropean.

There remain now on the IE side the endings ${ }^{*}-\bar{o}$ and ${ }^{*}-H_{2} e$ and on the Eskimo side ${ }^{*}-k a$ and -ma. In IE this is tied up with an opposition of present and perfect (Greek $\varphi \varepsilon \varrho \varrho \omega$ and $o^{z} \delta \alpha \alpha$ ), probably an old opposition between action and state. ${ }^{13}$ However, the only place in IE grammar where ${ }^{*}-\bar{o}$ is used to the exclusion of all other endings is the (thematic) subjunctive. Behind the opposition seen in the Vedic injunctive bháram vs. the subjunctive bhárā we might, then, see a contrast between the verbal form of a principal clause and that of a dependent clause. This is exactly the difference between Eskimo ${ }^{*}-\eta a$ and $-k a$ on one hand and $-m a$ on the other, cf., e.g. Greenl. indicative aki-vu-nga "I answer, I pay", $a k-v a-r a$ (from *-R-ka, the uvular spirant *-R- marking the singular) "I answer him" of principal clauses as against aki-ga-ma (Čapl. -ja-ma) "when/ because I answered", aki-gu-ma (Čapl. -ku-ma) "when/ if I answer", transitive aki-ga-v-ko (<*-ka-m-ku) "when/because I ansvered him", aki-gu-v-ko (<*-ku-m-ku) "when/ if I answer him", the four last-mentioned forms belonging in dependent clauses. What is here described as the "verb of dependent clauses", is variously designated in Eskimo grammar as "dependent moods", "gerunds", or "causative and conditional" and there is a certain common consent to conceive of them as infinite forms. I will not insist on any one terminology, but merely stress the fact that they are inflected for person, the transitive

[^17]forms even for two persons, just like verbal forms of principal clauses.

Thus having equated $\mathrm{IE}{ }^{*}-\bar{o}$ and Esk. -ma we are left with IE $*_{-} H_{2} e$ and Esk. *-ka, and our only possibility for maintaining the parallelism between the two sets of endings is now the assumption that $*-H_{2} e$ is the functional correspondence of $*-k a$.

The postulated parallelism may be tabulated as follows:

|  | Proto-Indo-European |  | Proto-Eskima |  |
| :--- | :---: | :---: | :---: | :---: |
|  | principal <br> clause | dependent <br> clause | principal <br> clause | dependent <br> clause |
| Intransitive | $-m$ | $-\bar{o}$ | $-b a$ | $-m a$ |
| Transitive | $-H_{2} e$ |  | $-k a$ | $-m$ |

The other persons are phonologically unclear (this is especially true of the $2^{\text {nd }} p . s g$.), or they have only two endings, one for the principal clause and one for dependent clauses. Specially clear is the $2^{\text {nd }} \mathrm{p} . \mathrm{pl}$.: Greenl. princ. cl. -se : dep. cl. -vse, Čapl. -si : -pasi/ -fsi. There can be no doubt that the dependent-clause form consists of the ergative casemarker ${ }^{*}-m$ - + the principal-clause form. In the first place nuna-v-se "(of) your country" is the ergative of the possessive form corresponding to the inergative nuna-r-se (not marked for case: $-r$ - signalizes the singular). In the second place, the situation is evidently the same in the Aleut $2 . \mathrm{pl}$. possessive inergative -čix, ergative -m-čix: ajxasi-čix "your boat", ajxasi-m-čix (uxasi-クis) "(the oars) of your boat". -m- is the mark of the ergative: adax "father", erg. ada-m. Instead of $-c ̌ i-x$ which is in fact a dual form one would expect -či (=Eskimo -si), and this is indeed the form found in Iochelson's and Veniaminov's ${ }^{14}$ materials, from where the following forms are cited. In gerundial (i.e. dependent-clause) forms we have the expected $2^{\text {nd }} \mathrm{pl} .-m-c ̌ i$, as in the periphrasis constituting the "near future": su-m-či ari-ku-xtxiči "having taken, you will be" = "you are about to take". In the $1^{\text {st }}$ sg. the forms are: possessive inerg. and principalclause verb $-\eta$, and unexpectedly also $-\eta$ in the ergative of the

[^18]possessive and in dependent clauses. The ending -min expected by Iochelson ${ }^{15}$ is indeed found, but only in the marginal function of personal ending with postpositions: just as the Aleut for "to the house" is ula-m hada-n with the ergative of ula-x, "to me" is hadi-min with the ergative $-m$ - well-preserved. Even if some details have become blurred we have sufficient remains to recognize the system with ergative suffixes containing the ergative mark $-m$-, these suffix forms being used also in the verbs of dependent clauses.

Analyzed according to this system the Eskimo $1^{\text {st }}$ sg. ergative -ma must now consist of the $*-m$ - of the ergative + either $*-k a$ or -! $a$. It is somewhat complicated to see what might come out of an original *-m-ya or *-m-ka. We do know, however, that Esk. *m became Greenl. $n g m$ (now pronounced [ $m:$ ]) and Čapl. $m \gamma$ as in *kamar, pl. *kamyət "boot(s)" yielding Greenl. kamik, pl. kangmit, Čapl. kamək, pl. kaməət. We know, too, that *km gave Greenl. ngm ([m:]) and Capl. $\gamma m$, as seen from the $1^{\text {st }}$ sg. poss. erg. of a dual noun, cf. Greenl. nuna-ng-ma (now obsolete), Čapl. nuna- $\gamma$-ma "(of) my two countries" formed with the ${ }^{*} k$ - of the dual + this same -ma. In view of this, the alternative assumption that *-m-ka should have developed to $-m a$ is deprived of all probability, as it presupposes a more weakened result of $*-m k-$ than came out of $*-m \gamma$-. On the other hand, one must consider it very understandable if ${ }^{*}$-mg- developed into $-m$-, even though we have no sure etymologies to point to, the group -mg-being a more homogenous cluster than $-m \gamma$ - and therefore expected to yield a more assimilated result than the -ngm- which the latter gave in Greenlandic (the pronunciation [m:] being a modern development of the $[\mathrm{gm}]$ attested by the Kleinschmidtian orthography). We know the product of *mn to be $m$ in all Esk. languages, cf. Greenl. nuna-me, Čapl. nuna-mi "(of) his own country", from *nuna-m-ni, formed with the ergative *-m- + the reflexive sg. possessive *-ni, cf. the inergative Greenl. nuna-ne, Čapl. nuna-ni "his own country". Thus, even without any direct attestation we find ourselves fully justified in rejecting *-m-ka and accepting *-m-ŋga as the reconstructible basis for the ending -ma of the $1^{\text {st }} \mathrm{sg}$. of the dependent-clause verb and of the ergative possessive.

[^19]The Greenlandic series -nga, -ga, -ma (= Čapl. - fa, -ka,-ma) is thus seen to go back to Eskimo *-ŋ ${ }^{*}$, ${ }^{-k a, ~ *-m-\eta a . ~}$

If the functional equivalence between these forms and the IE endings $*-m, *-H_{2} e, *-\bar{o}$ (in that order) is realistic, we must now try to analyze ${ }^{*}-\bar{o}$ in the same way as we did ${ }^{*}$-ma, i.e. as composed of the intransitive ending (which was ${ }^{*}-m$ ) + a morpheme for the ergative case.

In this analysis we are helped by the IE morphophonemics. To my mind the phonological relation seen in Sanskrit between the verbal forms subjunctive bhárā, indicative bhárāmi, and injunctive bháram is exactly the same as the one obtaining in the $n$-stem paradigm between the nom. ráaja the acc. ráajānam, and the voc. rájan. Just as the three nominal forms are undoubtedly to be derived from IE $*_{r} \bar{e} \hat{g} \bar{o}$, ${ }^{r} r \bar{e} \hat{g} o n-m ̣$ (with $*_{-O-}>-\bar{a}-$ in an open syllable ${ }^{16}$ ), ${ }^{*} r \bar{e} \hat{g} o n$, one could deduce the verbal forms from IE *bherō, *bherom-i, *bherom. In that case the subj. in *-ō is seen to bear the same relation to the bare form of the inj. in *om as is found to exist between the nom. in $*-\bar{o}$ and the unmarked voc. in *-on.

IE nominal stems in final sonant have in the nom. a long vowel taking the place of underlying vowel + sonant $+^{*}-s$, cf. Skr. sákhā, dat. sákhye, Greek $\Lambda \eta \tau \dot{\prime}$, voc. $\Lambda \eta \tau \sigma \tilde{\imath}$ (stems in ${ }^{*}$-oí-), Skr. pitá, dat. pitré, Lith. duktée (stems in *-er-). Other stems show in the nom. a lengthening that runs counter to the historically known sound-laws: Greek (Doric) $\pi \omega_{\varsigma}$, Lat. pēs (stems in short vowel + *d). As is well-known, the ending of the nom. is merely *-s (Skr. śúci-s, sūnú-s), and so the long vowel of the nom. must be the result of the encounter between the stem-final and the *-s. This is apparently contradicted by such Skr. paradigms as gáus, gen. gós ( ${ }^{*} g^{w} \bar{o} u-s$, gen. ${ }^{*} g^{w} o u-s$ ) and dyáus, gen. dyós (*díe $\bar{e} u-s$, gen. *dieu-s). But all things considered, this is an argument in favour of the analysis. As neither ${ }^{*} g^{w} \bar{o} u-s$ nor $* g^{w} o u-s$ can be interpreted etymologically in any other way than stem ${ }^{*} g^{w}$ ou- + case-ending ${ }^{*}-s$, their proto-forms cannot be contemporaneous. The nominative must be the older of the two, because its long vowel presupposes the operation of prehistoric sound-laws that have not been operative in the genitive.

[^20]The most natural explanation of this discrepancy is that the two cases were one in a very old period of the language. This is the Pre-IE ergative, marked with a morpheme that normally became IE ${ }^{*}-s$, but under certain conditions produced a long vowel. This may be explained as a compensatory lengthening by assuming that the $*-s$, was at the old stage a more complex entity, e.g. an affricate or a cluster in the order of $[t s]$. It was not until this sound-law had ceased to operate that the ergative was split up in two cases by the creation of a new form for the novel adnominal possessive form in ${ }^{*} s$ or $*_{-} / /_{0} s$. The old ergative form was then left with only part of its functional domain, namely that of marking the subject. This is the only way in which I can explain this apparent inconsistency in the phonological history allowing forms with long and short vowels without any etymological difference, and I take this as an argument in favour of the assumption that the somewhat peculiar nominatives with long radical vowel and loss of stem-final sonant do in fact continue the Pre-IE ergative case-form. Thus the nom. ${ }^{*} r \bar{e} \hat{g} \hat{o}$ of the nasal stems may in all probability be derived from an ergative ${ }^{*} r e \bar{e} \hat{g} o n-s$.

Likewise the subj. bharā, IE *bherō, may be traced back to Pre-IE *bherom-s, i.e. to the same case-form in *-s made from the verbal form *bherom. ${ }^{17}$ The functional domain of the subjunctive

[^21]is a variety of more or less strongly modally shaded dependent clauses of the same type as the Greenlandic dependent moods or the Čaplinian gerunds (deepričastija).

We have thus arrived at the possibility - quite an acceptable one to my mind - that the structural relation between principal clause and dependent clause was the same in IE as it is in Eskimo and a series of other languages with ergative and polysynthesis, i.e. the relation of possessor and possession, the dependent clause being construed as the owner of the principal clause. Indeed, there is the same relation of government between principal clause and dependent clause as between property and owner. The second clause of if I have time, I shall do it is not any I shall do it, but only that special specimen of $I$ shall do it that is characterized and delimited by the condition if I have time. It is, as it were, the statement $I$ shall do it belonging to if I have time.

There remains the ending ${ }^{*}-H_{2} e$ of the perfect, which was tentatively identified with Esk. ${ }^{*}-k a$, the mark of the possessor of something intransitive. The verbal function of transitive form in principal clauses has not been preserved in IE, but it is easy to imagine how it was given up and replaced by the intransitive value of state as the whole category of possession disappeared from the endings of the IE inflectional system. Hereby the "owner of something intransitive" became merely "something intransitive". On the analogy of the nominal possessive nuna-ga "my (inactive) country" (*nuna-ka) the verbal form takuvara "I see him" may be analyzed as "(this is) my inactive sight" (*taku-var-ka). Now, the semantic shift from "inactive sight" to "inactive seeing" with the emphasis on the process instead of on its object, is a very slight and commonplace development, and so the IE situation with ${ }^{*}-H_{2} e$ anchored in an intransitive situational category in fact presents no obstacle to our theory. It must be admitted, however, that this ending is no argument in itself; it is merely left over and passively fitted into the system to suit the argument. ${ }^{18}$ On the other

[^22]hand, the reconstructed form of the IE perfect (*-o-vocalism and two full grades) indicates that it has undergone post-ablaut reshapings with all the possibilities of semantic change this entails.

## 3. The IE System of Personal Endings

A sober reconstruction of the IE personal endings includes the series *-m, *-s, *-t, *-mé, *-té, *-nt of the system constituted by the prs. and the aor. and the series *- $H_{2} e,{ }^{*}-t H_{2} e,{ }^{*}-e,{ }^{*}-m e ́,{ }^{*}-t e ́,{ }^{*}-r$ as the basis of the system surviving as perfect and middle. Functionally the opposition is one between action and state or between active and inactive. The endings of the 3 rd plural ${ }^{*}-n t:{ }^{*}-r$ reflect the relation of two nominal stem-suffixes exploited in Anatolian to express the oposition ergative : inergative. ${ }^{19}$ The plural function is not original; the forms were much rather impersonal, as is known with certainty from the $-r$-endings of Italic and Celtic. ${ }^{20}$

The only true verbal plural endings were, then, *-mé and *-té, where the correspondence in consonant content between *-m and *-mé of the two first persons spring to the eye. It seems that the plural form has been derived from the singular form by alteration of the accent resulting in different vocalizations also in the stem, so that *iunéğm and *iunĝmé are in origin two different syncopation products of one and the same underlying form with fuller vocalization. Accent cannot be very old in the prehistory of IE, as it is not a member of the matrix of elements constituting different lexemes. IE could not form a new root with a new and unpredictable semantic content merely by changing the position of the accent. Prior to the genesis of the IE accent the two forms must, therefore, have been the same, i.e. merely a form for the first person irrespective of number, characterized by a morpheme consisting of the consonant *-m-.

The ${ }^{*}-m$ - of the $1^{\text {st }}$ person is in harmony with the pronoun *me, plur. Lith. mẽs, Arm. meke "we" from *mes. The pronoun of the $2^{\text {nd }} \mathrm{sg}$. is *te (or*twe) with the same consonant as the ending of the $2^{\text {nd }} \mathrm{pl}$. *-té. To make the system stand out one must then

[^23]surmise an old ending ${ }^{*}-t$ of the $2^{\text {nd }}$ sg. (or of the second person without specification for number).

The sporadic cases of $2^{\text {nd }} s g$. forms in $*-t(-)$ seen in Hittite and Old Slavic are explainable in different ways, either as transfer forms from the category of state or as pronominal accretions. In Hittite the termination of the mi-conjugation is $-s$, except when the verbal stem itself ends in $-s$ in which case the $2^{\text {nd }} \mathrm{sg}$. ends in the - $t$ transferred from the hi-conjugation: mazzasta |mazst/ (from *mat-s-t) "thou stoodst thy ground", isparzasta /sparzst/ (< *spart-$s-t$ ) to ispart- "escape", punusta /punust/ to punus- "ask". This is merely a commonplace phenomenon of dissimilatory selection without bearing on the IE situation. OChSl. bysto "thou wert, he was" may be from *bhūs tu and *bhūt tom and need not have anything to do with the postulated IE * $-t$ marking the $2^{\text {nd }} \mathrm{sg}$.

It seems, however, that the ending $*-t H_{2} e$ of the perfect is itself influenced by the ${ }^{*}-t$ of the active. The Indo-Iranian $2^{\text {nd }} \mathrm{pl}$. of the perfect terminates in $-a$ which is isolated among the endings of the attested IE languages and has not been explained away as an analogical formation. This $-a$ may indeed be identical with the *- $H_{2} e$ that was the form of the $2^{\text {nd }}$ sg. ending before the $*-t$ of the action category influenced it to give the contamination $*-t-H_{2} e$. To keep the opposition between the $1^{\text {st }}$ and the $2^{\text {nd }}$ persons, which are now both $*-H_{2} e$, we must assume the existence of two different phonemes both usually labelled ${ }^{*} H_{2}$, the most probable opposition being that of voice accepted by Lindeman. ${ }^{21}$ The $1^{\text {st }} \mathrm{sg}$. termination must, then, contain the voiceless member of the opposition, since the laryngeal is retained in Hittite (Old Hitt. -he > Hitt. -hi is from Anatol. ${ }^{*}$-hai, i.e. IE ${ }^{*}-H_{2} e$ of the "perfect" + the deictic particle *i of the present), whereas the $2^{\text {nd }} s g$. morpheme must contain a voiced laryngeal not retained in Hittite after *-t- (Hitt. - $t i$ must be from Anatol. *-tai, IE *-tH $H_{2} e-i$; retention of the group -th- is seen in tethessar "thunder"). Even if this explanation of the *-t- of the $2^{\text {nd }} \mathrm{sg}$. perfect ending should not be correct, the $*-t$ - of the $2^{\text {nd }} \mathrm{pl}$. *-té will suffice to demonstrate the link between the pronoun *te/ *twe and the verbal endings.

The usual $2^{\text {nd }}$ sg. verbal termination of the category of action is, however, ${ }^{*}$-s. There is no $2^{\text {nd }} \mathrm{sg}$. pronoun corresponding to this

[^24]form, but it presents a perfect match to the reflexive pronoun *se/ swe (parallel to that of *-t to *te|*twe), and it may indeed have originated in an old reflexive verbal form. In that case we have a remarkable parallel to the situation in Aleut exhibiting a typologically interesting syncretism of second person and reflexive. This does not stand out from the Aleut sketch by Menovščikov of 1967, ${ }^{22}$ but has been recorded by Iochelson in $19344^{23}$ and by Bergsland in $1951 .{ }^{24} \mathrm{We}$ see this in, e.g., tana-: $n$ "thy/ his own country (inergative)", tana-či "your/ their own country". They even have the pronoun in common: txin (or tin) "thou, thee/ he himself, himself", $t(x) i d i x$ "you two / the same two, themselves", $t(x) i c ̌ i$ or $t(x) i c ̌ i x$ "you (pl.) / they themselves, themselves". Iochelson cites in $1919^{25}$ the reflexive forms txin-súnax "he took himself", txinagúnax "he was born" with a hyphen, apparently to underline what he takes to be a special status of the first element different from the one exhibited by txin súnax "he took thee", txin agúnax "she bore thee" which he writes without the hyphen. The forms are etymologically probably those of the $2^{\text {nd }}$ person, judging from the correspondence of the pronoun txin with the Esk. termination *-tan $/ *-k \partial n$ (the former used after vowels: Greenl. aki-vu-tit "you (sg.) answered", the latter after consonants: aki-ga-v-kit "when/ because I answered thee"). The Eskimo reflexive has the ending *-ni, ergative *-mi (underlying form *-m-ni), and the Aleut syncretism may be due to the phonological merger of the old reflexive and the $2^{\text {nd }}$ sg. in $*-n$. But this does not alter the typological situation that the Aleut personal endings present a syncretism of a kind which would have been revolted against by the language system, had it not been supported by some sense of semantic identity. Indeed, the syncretism repeats itself in the dual and the plural where no phonological coalescence can be suspected. Until a better and more detailed philosophical explanation is brought forward I will tend to see the semantic justification in the imperative, where there is full identity in extra-linguistic denotation between the second person and the reflexive. Be this as it may, we

[^25]may at any rate safely take the example of Aleut as a guarantee of the possibility of the assumption that the IE reflexive form took on the function of the $2^{\text {nd }}$ sg., as reflexive forms grew superfluous. This they did, as the system with ergative and special dependentclause forms gradually fell apart, judging from the Eskimo situation where only the verb of dependent clauses has a "reflexive" (i.e. recurrent third person) form. ${ }^{26}$

Finally, a few words on the $3^{\text {rd }}$ sg. The general trend in languages of the ergative structure (and in many others as well) is the bare zero. This seems indeed to be attested here and there in IE, cf. e.g. Greek $\varphi$ ع́@ $\varepsilon \iota$ made of the bare stem *bhere- + the particle $*-i$ of the present and the Indo-Iranian precative bhūy ${ }^{c} s$, whose zero ending is borne out by Avestan forms in -yå. ${ }^{27}$ If Watkins is right in considering the ${ }^{*}-s$ - of the sigmatic aorist a generalized personal ending, ${ }^{28}$ and also in seeing in this formation traces of a narrow affinity to the middle diathesis, ${ }^{29}$ this ${ }^{*}$-s may be the old mark of the reflexive, and the sigmatic aorist will then be an old reflexive category. As a dependent-clause form the reflexive would be further characterized by the ergative ${ }^{*}-s$, the two *s's yielding the same lengthening of the preceding vocalism as they do in the nominative of ${ }^{s} s$-stems. This explanation of the lengthened-grade vocalism is, however, tied up with some very complex problems of interlacing analogies which cannot be treated within the scope of the present paper; I hope that I shall have occasion to revert to them in the foreseeable future.

[^26]The replacement of the naked $3^{\text {rd }}$ sg. by a form in $*-t$ cannot be explained in all details, but the same phenomenon is seen elsewhere in IE grammar. A number of suffixes are renewed by the accretion of a *-t-, cf. *-ero- $\rightarrow$-tero-, ${ }^{*}$-mmo- $\rightarrow{ }^{*}$-tmmo-, ${ }^{30}$ and verbal roots as the second member of compounds with an added *-t of the type Skr. iṣu-bhrit- "carrying arrows", the *-tentailing in none of these cases any change on the functional level.

Thus, by drawing on our knowledge of ablaut and accent (which at this old stage of the linguistic history amounts to the justified total neglect of what we know of these phenomena for younger linguistic strata) and by adducing the pronouns, it is possible to analyze the IE personal endings in a way that is in somewhat fuller harmony with the situation we expect to find, when we view the matter from the standpoint of Eskimo and Aleut typology. It is on this basis I venture to see an old series of personal endings ${ }^{*}-m,{ }^{*}-t$, ${ }^{*}$ (zero), ${ }^{*}-s$, marking the $1^{\text {st }} p$., the $2^{\text {nd }} p$., the $3^{\mathrm{rd}}$ p., and the reflexive, respectively, underlying the system that is more commonly reconstructed as $*-m$, ${ }^{*}-s$, ${ }^{*} t$.

Even if I may not have had the luck to convince anyone of anything else, I do hope to have demonstrated that linguistic parallels may occasionally take us further in the analysis of a reconstructed language. However problematic an analysis of this kind may be, the problems it raises are of a sort that is worthy of further investigation.

## III

## Gothic nam : nèmum and the Indo-European Reduplication

From the beginnings of Comparative Indo-European Linguistics the alternation $a: \bar{e}$ of the preterite of Germanic class IV and V strong verbs has been a hard nut to crack. This problem and its further implications will be dealt with below.

The singular forms nam and qap are of course the unadulterated descendants of the IE o-grade perfect. To be able to assess the relation of the plural forms nemum and qēpum to this paradigm we are in need of a source of inspiration. Our attention is now first attracted by such Latin perfect forms as $f \bar{e} c \bar{\imath}$ and $c \bar{e} p \bar{\imath}$. Here, too, instead of o-grade and reduplication we have a form with long $-\bar{e}-$. We know that an earlier form of fécit was fhe fhaked with reduplication and zero-grade root vocalism. This observation turns our thoughts in two directions, to the reduplicated aorist type of Skr. ávocat (*ewe-ukwe-t) on one hand, and to weak-stem perfect forms like Skr. cakré, cakrúr on the other hand. Of these two comparisons the latter is undoubtedly preferable to the former, since the Germanic preterite is in all essentials based on the IE perfect and this presented zero grade in the forms of the plural.

It is precisely in the zero-grade forms of the perfect that we find a striking, if independent, parallel in Sanskrit. Forms like tápati : tatápa: tepé, tepúr presenting the structure tep- instead of the regular *ta-tp- enable us to judge the Germanic forms with $-\bar{e}-$.

It is beyond question that the traditional view on the Skt. forms ascribing the $-e$ - to the analogy of such phonetically regular forms as yemúr, yemé, sediré, is correct. ${ }^{1}$ Once *sa-sd- had become sēd-

[^27]a new type of perfect formation was established. The new structure, synchronically describable as the substitution of long -efor radical - $a$ - and lack of reduplication, is only exhibited by those rather few forms of the verbs in question that are otherwise formed by means of reduplication and zero grade. This makes the $-\bar{e}-$ an unusual - and therefore successful - mark of the weak perfect stem of verbs that do not change their initial in reduplicating (by palatalization, deaspiration or otherwise), the underlying structure $C_{1} a-C_{1} C_{2^{-}}$being the only one leading to the surface structure $C_{1} \bar{e} C_{2^{-}}$through the substitution described.

Another parallel is furnished by Old Irish where the future formation of the type seen in •béra (instead of expected *bebra from *bi-ber- $\bar{a}-t$ ) is clearly due to the analogy of phonetically regular forms like géna (from *gi-gen- $\bar{a}-t$ ). ${ }^{2}$

We revert now to the Germanic forms. Our task is here to invent a phoneme sequence that would result in a long $-\bar{e}-$, thus yielding the model for the other verbs. In other words, what is $C_{1}$ in the equation

$$
\text { IE } * C_{1} e-C_{1} C_{2}-m o ́(\text { or *-mé })>\operatorname{Germ} . C_{1} \bar{e} C_{2} u m ?
$$

We know that the sequence $* e H_{1}$ yields a long $\bar{e}$ in preconsonantal position, and the $C_{1}$ of our formula may then be the laryngeal ${ }^{*} H_{1}$. We know, too, that the verb niman originally had no initial $n$-, seeing that the correspondence with Lat. emō, OIr. do-n-eim "protects him", Lith. imù, and OChSl. jьm! can only be retained on this assumption. The $n$ - must have been carried over from preverbs, the formation being comparable to that of OChSl. vznęti, vznbmg and sznęti, sznbmg from vz or $s z+j e ̨ t i$, jomo. In these forms a nasal that is absent before consonant or pause has been retained in prevocalic position: $v z$ is probably IE *on (ablaut variant of *en, *en-i "in"), while $s$ ъ matches a variety of possibilities, the most likely one being perhaps IE *som (Lith. sán-dara "structure, syn-thesis") with *kom and the etymon of Greek $\xi v 勹 v$ running close behind. Mutatis mutandis OChSl. $s$ ъ $п \mathrm{~b} \boldsymbol{m} \rho$ and Goth. ganima are thus congruent. Germanic *nema "I take" is, then, analyzable as *n-ema, and in like fashion *nemum "we took" may be segmented into *n-ēmum, the truly verbal part *ēmum going back to IE * $H_{1} e-H_{1} m$-mó (or *-mé).

[^28]Once the accretion of the nasal had lead to the forms *nema, *nam, *nemum, this verb had acquired the same structure as the majority of other verbs, i.e. CVC-, and could serve as their model. Exactly as in Sanskrit *tatpé conformed to the pattern of sedé, Germanic *kwekwmum was changed to *kwēmum on the analogy of *nēmum.

Nothing of the sort happened in the singular. It is absolutely impossible to explain Gothic forms like nam, qam, or qap as reduplicated. Assuming loss of reduplication would perhaps solve the problems of most verbs, but, apart from being a hypothesis concocted solely $a d$ hoc, it would fail to account for the form nam. One would have to assume that *(n)eman was made the model of the other verbs only in the plural of the preterite, whereas the singular was changed so as to agree with the normal type seen in qam. However, a reduplicated singular form * $H_{1} e-H_{1} o m-H_{2} e>$ *eoma (or the like) would definitely undergo a contraction already in the period of the proto-language and result in a structure no less characteristic (and probably no less successful) than that of *nemum. The theory of dereduplication is, therefore, best given up.

The only remaining possibility is, now, that nam was never reduplicated. In that case we have in the sg. of the pf. forms like * $H_{1} o m-H_{2} e$ which gave Gmc. *am, whence, with the nasal carried over in sandhi, the attested form nam. The corresponding plural form presented reduplication: ${ }^{*} H_{1} e-H_{1} m$-mó $>{ }^{*} \bar{e} m^{0} m>{ }^{*} \bar{e} m u m$, with sandhi nasal nēmum. Correspondingly, all Germanic strong preterites of classes I to V must have been unreduplicated in the singular since IE times, whereas the plural forms of classes IV and V were regulated by a reduplicated pattern, a clear indication of their former truly reduplicated nature.

What, now, from the standpoint of linguistic history, are we to do with a paradigm consisting of an unreduplicated singular and a reduplicated plural? First of all, perhaps, we ought to look for parallels, and in Gothic itself we find an interesting counterpart in the endings of the weak preterite. In forms like salbō-da: salbōdēdum we observe a relation very similar to what we see in nam: nemum. We are now practically forced to test the theory that Gothic, in contradistinction to the other Germanic dialects, preserves an archaism and allows us to see the scant remains of an old system where verbs only reduplicated in the plural.

In the relation between accent and ablaut we do occasionally find peculiarities that may be considered traces of such a system. If we take Skr. dádhāti from *dhé-dhe $H_{1}-t i$ to be a well-preserved form dating back to the creation of ablaut, we do not understand why the unaccented radical vowel is retained with full grade. Conversely, if we assume a shift of accent, i.e. a still older form *dhe-dhé $H_{1} t i$, we are at a loss to explain the retention of the reduplicative vowel. It seems justified to infer from this that reduplication is a secondary feature of this form, and the protoform to be reconstructed for the $3^{\text {rd }} \mathrm{sg}$. of this verb is merely $* d h e ́ H_{1}-t-i$. In the $3^{\text {rd }} \mathrm{pl}$. form dádhati from *dhé- $d h H_{1^{-n}}{ }_{0} t-i$, on the other hand, we witness full agreement between full grade and accent in the reduplicative syllable (*dhé-), and between zero grade and lack of accent in both root ( $* d h H_{1^{-}}$) and ending ( ${ }_{-}^{*}-n_{0} t$ ).

An interesting example is supplied by the Indo-Iranian perfect forms of the root $b h \bar{u}$-, where I would take the discrepancy in the vocalization of the reduplicative syllables of Ved. babhúva and Av. $|b u b \bar{a} v a|^{3}$ as an argument in favour of the theory that the sg. forms were originally unreduplicated, while the agreement between Ved. babhūvúr and Av. |bābuvar/ ${ }^{4}$ (discounting the Ved. accent and the Av. vowel-length that are both obviously secondary) indicates a relatively higher age of the reduplication of plural forms.

The IE paradigm of the period immediately following the earliest ablaut changes must have contained the following forms :

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1st pers. *bhuH-H2é
2nd pers. *bhuH-(t)H2 H
3rd pers. *bhuH-é
impers. *bhé-bhuH-r
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This is the ancestor of the oldest form of the middle preserved in such forms as Ved. á-duha. The Late IE perfect singular with $o$-vocalism represents an analogical introduction of full grade into the sg. in imitation of the present and aorist forms coupled with the additional mark of the forme fondée constituted by the change

[^29]of vowel timbre (whatever the exact nature of the phonetic processes involved in this change). ${ }^{5}$

The resulting pf. paradigm must, then, have contained the following characteristic forms:

| $1^{\text {st }}$ sg. *bhóuH-Ha | $1^{\text {st }} \mathrm{pl}$. *bho-bhuH-mé |
| :--- | :--- |
| $3^{\text {rd }}$ sg. *bhóuH-e | $3^{\text {rd }} \mathrm{pl}$. *bhé-bhuH-r |

This is the paradigm presupposed by the Old Indo-Iranian patterns derived from it each in its own way.

In Indic, the reduplicative vowel was generalized in its accented form, the radical vocalism, on the other hand, in its unaccented form, the structure babhū- consequently running through the paradigm. In the $3^{\text {rd }} \mathrm{pl}$. the accent was shifted to the ending giving babhūvúr, probably on the analogy of the present accenting dviṣ-ánt. The minor adjustments seen in babhūvimá (for expected *babhūmá) and babhūvúr (for *babhuvur from *bhe-bhuH-ror) represent commonplace analogical levellings falling outside the scope of the present paper.

In Avestan, the known forms show no generalization of a special vowel quality of either reduplication or root. In the sg. the radical accent entailed the reduced vocalism of the reduplicative syllable, * $b h^{0}$ - being realized as *bhu- in the lip-rounded environment. The long radical vowel of $\mid b u b \bar{a} v a /$ is due to an analogical extension of Brugmann's Law, whereby the phonetically regular difference between $1^{\text {st }}$ sg. cakára $\left({ }^{*}-k^{w}\right.$ or- $\left.H_{2} e\right)$ and $3^{\text {rd }} \mathrm{sg}$. cakára (*-k ${ }^{w}$ or-e) is reproduced by */bubava|, |bubāva|, though both of these forms should be expected to have a short radical vowel arisen in an originally closed syllable ( ${ }^{*}$-bhouH- $\mathrm{H}_{2}$ e, *-bhouH-e). No satisfactory explanation has been advanced of the lengthened reduplicative vowel of $\mid b \bar{a} b u v a r / ;$ important to our purpose is only that it may safely be taken as an indication that the reduplicative vowel was accented in this form.

Thus, the Indo-Iranian paradigms presuppose the existence of an unreduplicated sg. which, as is well known, is directly attested in OIr. boí "he was".

[^30]If all these facts are in any way interrelated they are most easily explained by the assumption that reduplication in Proto-IE expressed some kind of plurality. This plurality could be one of subjects (plural form proper), of objects or of repetition (intensive or iterative). ${ }^{6}$ This is to my mind the only possible solution to the riddle constituted by the fact that the forms of the $1^{\text {st }} \mathrm{sg}$. become identical with those of the $1^{\text {st }} \mathrm{pl}$. if they are projected back to the period preceding the IE ablaut. By this projection we are forced to posit one Proto-IE form *ieweneĝeme as the point of departure common to the two historical forms, Ved. yunájam of the $1^{\text {st }} \mathrm{sg}$. injunctive present and yuñjmá of the $1^{\text {st }} \mathrm{pl}$. of the same categories. Assuming an IE difference of accent would not help us very much, seeing that the accent (like the ablaut alternations caused by it) is revealed to be of secondary origin by the fact that it does not enter into the matrix of lexeme-distinguishing elements, being operative only on the level of inflection and derivation. In preapophonic IE the verbal endings could not distinguish "I' and "we"' (or "thou"' and "ye"' if we are allowed to compare the ending *-te of the $2^{\text {nd }} \mathrm{pl}$. to the pronoun *tu, *te). Assuming, however, that the language was unable to distinguish these basic concepts on any grammatical level would be absurd; if reduplication could express plurality in a way independent of the verbal endings, this stumbling-block has been removed.

It is possible that the plurality expressed by reduplication referred to the object rather than to the subject. This would be in excellent agreement with the ergative sentence structure that is to be assumed for the oldest period reached by our reconstructions. If a verbal process is expressed by the ergative of the subject + the inergative of a verbal noun, as e.g. *H $H_{2}$ enere-se ${ }^{*} g^{w} h e n e-t e$ "the man's killing', the plurality that could be expressed by reduplicating the verbal noun would change the meaning to something

[^31]like "the man's several acts of killing'" clearly indicating a plurality of objects.

This is unexpectedly coherent with the fact that some situational perfects, being intransitive, were never reduplicated: Skr. véda vidmá, Gr. oiz $\delta \alpha{ }^{\imath} \delta \mu \varepsilon v$, Goth. wait witum. Germanic must be specially archaic in this respect, since perfects of the structure CaR or CaT like skal and mag have not had their plural forms reshaped to match the structure of nemum, but present instead the well-preserved forms with zero-grade or its equivalent (full grade with roots ending in plosives) and lack of reduplication: skulum, magum.

Excursus on the dual. It may not be quite out of place to appendix a remark on the position of the dual within the theory described above. I fail to find any indication that the dual was ever characterized by reduplication. The status of the dual in the earliest reconstructible stratum of $I E$ was much rather quite different from its position in the grammars of the attested languages.

The first impression of the dual forms is that they are very old. This is indicated by the traces of prehistoric sound changes dating back to a layer older than the bulk of our IE reconstructions. There is hardly any doubt that the morpheme for person is ultimately the same in the two Ved. forms bharāva and bharāma, the alternation recurring in adjectival derivatives in -vant and -mant. On the surface of it, this alternation reminds us of the Celtic mutations, and the conditioning factors may well be the same in both cases. One would then consider the $*-w$ - of the $1^{\text {st }}$ du. as the result of lenition of the morpheme otherwise preserved as *-m-. Extending the Celtic parallel still further we might conceive of the *-w- as having developed in intervocalic position, in which case the Pre-IE form of the $1^{\text {st }} \mathrm{du}$. ending may be reconstructed as ${ }^{*}-V-m-V$ as opposed to the $1^{\text {st }}$ person non-dual (pl. if reduplicated, sg. if not) ${ }^{*}-V-m$, later development producing such secondary features as lenition, vowel quality, and the split of the non-dual ending into two distinct forms, one sg., the other pl .

Another indication of the relatively advanced age of the dual is the identity of the fem. and the neut. in the case of thematic (*-o-/*- $\bar{\alpha}-)$ stems, and of the masc. and the fem. in the case of other stems. This is the two-gender system of animate vs. inanimate where the fem. in ${ }^{*}-\bar{a}$ was in fact the expression of an inani-
mate collective number on a par with the pl. and the dual. No wonder, then, that the dual of the neut. collective is the same as the dual of the neut. sg.

However, the fact that IE used a special word for "both" (Ved. ubháu, Greek ${ }^{\prime} \mu \varphi \omega$, Lat. ambo, OChSl. oba, Lith. abù, Goth. bai, cf. Pokorny IEW p. 34 f) and not the dual of a word for "all" is a strong indication that the dual was in origin nothing but the singular of words denoting pairs. The attested dual paradigms are thus mere imitations of the original singular paradigms of the words "two" and "both" with their variety of particles lending personality to the declension. Thus priyáu and mádhū contain the same particle $u$ ( $u m$ ịi) as the pronoun asáu, while fem./neut. priyé and śúcī have been extended by means of the particle -ī recurring in the pronoun amí (like Greek ovizoc-î́) as is borne out by the common feature of pragṛhy. I would further suggest that the Greek ending $-\varepsilon$ of $\alpha v \varepsilon ́ \varrho-\varepsilon$ etc. is a particle, too, and that the same particle is contained in the final vowel of the $1^{\text {st }}$ du. verbal termination *-we form older *-m *e as analyzed above.

If any of these speculations are correct, the dual was absent at the oldest stage we can reach, and later it was sufficiently characterized by the conglomerate endings of the numerals "two" and "both" to make further characterization by reduplication superfluous. It cannot, however, be excluded that there did exist, at some stage or other of the linguistic history, reduplicated forms of the dual denoting a plurality of pairs, much as present-day Breton has at its disposal such doubly quantified declensional forms as daou-lagad-ou "pairs of eyes" (being the pl. of daoulagad " a pair of eyes", "two eyes", this being in its turn the dual of lagad "eye"). There is, however, no indication whatever in the attested facts that there was any grammatically exploitable connection between dual number and the derivational device of reduplication.

## IV

## Some Remarks on the Old Irish $\boldsymbol{f}$-Future

The aim of this paper is merely to draw attention to a number of facts that have not hitherto been duly regarded in discussions about the Old Irish future formation containing a much-debated morpheme $-f$-, especially as concerns its possible relation to the Latin future and imperfect in $-b-$.

As is well-known, the Irish $f$-future is the regular future stem formation of verbs conjugated on stems in Celtic ${ }^{*}-\bar{a}-$ and ${ }^{*}-\bar{i}-$ (IE *- $\bar{\alpha}-$ and ${ }^{*}-\bar{e}-$, ${ }^{*}-\bar{i}$-, or ${ }^{*}$-eie e- respectively). This fact is in itself a strong indication that the formation is young: the old nonderivative verbs do not have it.

In the same manner the future in $-b^{e} / 0^{-}$was in Archaic Latin restricted to stems in $-\bar{a}-,-\bar{e}-$, and $-\bar{\imath}-:$ ama $\bar{a} b \bar{o}$, mon $\bar{e} b \bar{o}$, audī $\bar{b} \bar{o}$ (later audiam). The same delimitation must have been valid for the imperfect in $-b \bar{a}-$ at a certain period, seeing that only these stems can form this paradigm without recourse to analogy: amābam, monēbam, and the old type audībam retain their stem vowels intact, while the thematic legēbam (and the new type audiēbam) must be due to secondary restructuring.

If the future and the imperfect were to be made from $a m \bar{a}-$ and mone $\bar{e}-$ as erit and erat are made from es-, a skew and cumbersome set of syncretisms would arise, as the resulting amet and moneat have already been used as subjunctives. The $-b$ - of amābit and monēbit thus has the advantages of keeping the vocalic elements apart and of characterizing the stem beyond the slightest risk of confusion with other categories.

Formally the relation between amābit and amābat is like that of erit to erat or that of legit to legat. Thus the imperfect in $-b \bar{a}-$ represents an interesting syncretism in that it may equally well
be described as the past of the future stem ( ${ }^{*}-\bar{\alpha}-$ as in erat $)$, i.e. a conditional, and as a future subjunctive (*- $\bar{a}-$ as in legat), two functions that are seldom kept apart in the morphology of a language. One may instance this by the Latin irreality of the perfect periphrasis with the future participle: quid Philippus, si vixisset, facturus fuit "what would Philip have done, had he lived?'’ ${ }^{1}$ In fact, Ernout-Thomas do record an instance of Ciceronian debēb $\bar{a} s$ translatable as "tu aurais dû"', but even if the semantic affinity to a conditional were completely lost in attested Latin, it would still be recommendable to surmise its earlier existence on purely structural grounds.

Among the other Italic languages Faliscan is the only one to possess the labial future: pipafo "I shall drink" and carefo "I shall want (something to drink)" testifying to the aspirated nature of the *-bh-involved in this formation.

Oscan has the imperfect fufans "they were", the only example outside Latin of -bam, -bās, etc. The isolated fufans is suspect, since there is no way to tell whether the morpheme constituting the imperfect is indeed -fa- or just - $a$-. In the former case we have a formation like $a m \bar{a} b a n t$ to the root $f u^{-}$, in the latter a reduplicated *bhu-bhw- $\bar{a}-n t$ which, though not directly parallelled in Italic, neatly represents the reduplicated form of the Archaic Latin subjunctive fuam fuās fuat.

A reduplicated subjunctive, however, is not necessarily an imperfect. Only one other IE language group knows a formation exactly matching fufans, namely Celtic. In Old Irish the normal relation between the future and the subjunctive is that the former is a reduplicated variation of the latter. Thus to a present guidid "prays" (<*godīti < *gwodheieti: Gr. лoখと́ $\omega$ ) the sbj. is geiss $\sim$ $\cdot g e \quad\left(<{ }^{*} g e d s t i \sim * g e d s t<{ }^{*} g^{w h e d h s t i} \sim{ }^{*} g^{w} h e d h s t\right)$ and the fut. gigis $\sim \cdot g i g\left(<* g i g e d s t i \sim * g i g e d s t<{ }^{*}{ }^{w} h i g^{w} h e d h s t i \sim g^{w h i}\right.$ $g^{w} h e d h s t$ ) with a sigmatic formation as the derivatory basis. Likewise for the sbj. and fut. in $-\bar{a}-:$ prs. canaid "sings" ( $\left.<{ }^{*} k a n a \bar{t} i\right)$, sbj. canaid $\sim$ cana $\left(<{ }^{*}\right.$ kanāti $\sim$ *kanāt $)$ and fut. cechnaid $\sim$ cechna (< *kikanāti ~ *kikanāt). Thus Oscan fufans is to Archaic Latin fuat what the OIr. fut. $3^{\text {rd }} \mathrm{pl}$. cechnat ( $<$ *kikanānt) is to

[^32]the $3^{\text {rd }} \mathrm{sg} . \operatorname{sbj}$. canaid (*kanāti), the only formal difference being the quality of the reduplicative vowel which is in OIr. ${ }^{*}-i-$ with all verbs, but $*-u$ - in the Oscan form in compliance with the rule known from Old Indo-Iranian demanding -u-reduplication with roots in -u-, cf. Avestan buиāuua (|bubāva|) of the same verb. ${ }^{3}$

Structurally, then, the Oscan imperfect fufans most of all looks like an Old Irish future. Then it would be in no way surprising if we were to find a correspondence between the Latin imperfect $a m a \bar{a} b a m$ and the OIr. future rannfa $\sim$ rannub. But this equation has been contested from time to time, and it might be wise to look for a while at the pros and cons. ${ }^{4}$

Synchronically, the OIr. $f$-future may be described in the following way. It contains: 1) a present stem in $-a-\sim c_{-}$or $-i-\sim$ - giving neutral quality in •rann- and palatal quality in léic$+2)$ a consonant which is $-f$ - after a consonant and $-b$ in wordfinal position after a vowel +3 ) endings like the $\bar{a}$-future or $\bar{a}$-subjunctive. If we adopt $\varphi$ as a symbol for the alternating labial, we have the $3^{\text {rd }} \mathrm{sg}$. •RaNpa and $\cdot L^{\prime} \bar{e} k^{\prime} \dot{\varphi} a$ (written $\cdot$ rannfa and -léicfea). Whatever the origin of the $-\varphi$-, these forms may be traced back to some such (doubtless anachronistic) formulae as "prasn $\bar{a}-\varphi-\bar{a} t$ and ${ }^{\text {link }}{ }^{w} \overline{\bar{l}}-\varphi-\bar{a} t$.

The only phonological unit known to behave like the $-\varphi$ - of these forms is IE $* s w$, and yet even this presents one minor problem. Thurneysen notes ${ }^{5}$ that the $f$ arising from lenited *sw could be written both $f$ and $p h$ (tinfed or tinphed, VN of do•infet "inspires", uncompounded sétid "blows", thus representing *t(o)-
 $p h$-future is found attested in Old Irish, a fact that makes one suspicious about either the spelling rule or - as we shall see rather the etymology of the $-\varphi$-.

I fail to see any plausible morphological justification for

[^33]*-sw- $\bar{a}$ - as the future morpheme, even after reading the attempt undertaken by Watkins. ${ }^{6}$ I find it utterly improbable that the derivational source should be desiderative adjectives like the Vedic didhiṣú- "wanting to put", or the unreduplicated dhákṣu"wanting to burn" forming in its turn a denominative verb of the type *dhegwhswāti "wishes to burn'". As the OIr. counterpart of the Indo-Iranian desiderative is the $s$-future which is found only with non-derivative verbs, the derivative verbs in ${ }^{*}-\bar{a}-$, ${ }^{*}-\bar{e}-$, and $*$-eiethat are too young to have the sigmatic formation should have instead of this a future derived from a derivation of the $s$-future. This must mean that they once formed desideratives (or $s$-futures) that could generate the adjectival source of the *-swā-formation. But at that old stage these verbs did not exist at all. The verbs showing $f$-future are the new verbs created in the language after the loss of the derivational capacity earlier displayed by ${ }^{*}-s-$, $*-\bar{\alpha}-$, and reduplication. Watkins's theory, then, would have to ascribe to these verbs a very long history that they do not have.

The OIr. $-\bar{a}-$ and $-\bar{l}-\mid-\bar{e}$-verbs form their subjunctives in $-\bar{\alpha}-$ : - léicea. Otherwise the normal future corresponding to an $-\bar{a}$ subjunctive is one with reduplication and $-\bar{a}-$, but as these verbs are for the most part derived from unchangeable word stems (like rannaid from rann "part") they are uncapable of reduplication, and the $\bar{a}$-future would be identical with the $\bar{a}$-subjunctive if it had not been for the $-\varphi$-. We here see a very striking parallel to the function of the $-b-\sim-f$ - of the Italic formations mentioned above. Indeed, the structural similarity of the two oppositions moneat : mone $\bar{e} b a t$ and $L^{\prime} \bar{e} k^{\prime} a: L^{\prime} \bar{e} k^{\prime} \dot{\varphi} a$ is so clear that it has been quite impossible for sceptics to ease the curiosity of generations of celtologists merely by referring to problems such as the minor difference of function, the difficulties of reconciling Lat. - $b$ - with OIr. - $f$ - in terms of a sound-law, and the readiness of a forced *-sw- to take over in case ${ }^{*}-b h(w)$ - should fail to work. Moreover, as the Oscan imperfect fufans is definitely structured like an OIr. future and as the morpheme $*-\bar{a}$ - conveys a modal shade equally prone to change in either direction, there is ample structural support for a tentative equation of OIr. $-p$ - with the Latin $-b$ - and the Oscan -f-.

[^34]Already the analysis of fufans as the reduplicated counterpart of Latin fuant ${ }^{*}$ limits our choice to IE $* b h w$ as the source of the hiatus-filling labial. The question is now whether or not this cluster could develop into the OIr. alternation $-f-\sim-\beta-$, here represented by $-\varphi-$. Sommerfelt believed it could and analyzed the $-\varphi$ - as the outcome of a geminate $*-w w$-, itself the lenition product of Celtic *-bw- (IE *bhw). ${ }^{7}$ This is rejected by Watkins for a number of seemingly good reasons: 1) Words with initial *bhw- are spelt with $b$ - in OIr. also in lenition position. 2) Initial $f$ - is in fact the product of *-s i word-final position + initial *w- $>* h w->f$-, and so $|f|$ never entered into the system of alternating consonant quantities. ${ }^{8}$ These objections are serious; if they can stand criticism the whole edifice of an Italo-Celtic parallel falls to dust.

But there are a few important pieces of evidence pointing to the behaviour of IE * $b h w$ along the lines of the future morpheme in question. We have an OIr. $f$ arising from *bhw in the initials of proclitic words: $f a$, fá beside $b a$, bá "or"' must be a form of the verb "be" like Old Lat. fuat "soit" and go back to "bhwāt. As a verb, $b a / b a ́$ is peculiar, presenting as it does a syncretism between the present subjunctive and the past (ipf. and aorist, indiscriminately) of the copula, and even the verbal form is occasionally spelt $f a$. An instance is found readily accessible in the late MS R of the Scéla mucce Meic Dathó, ed. Thurneysen, p. 8, line 10 from the bottom of the page. The more frequent ro- $t$ •fía "it will be (so) for thee" of the same MS cannot have $f$ from $[\beta]$ due to the neighbouring $t$, since the latter represents [ $d$ ]. We rather have to do with instances of generalized sandhi variants, perhaps originating from a dialect or social stratum different from the one exhibiting an unvariable $b$-. Something of the kind must be true of the bewildering a fail a mbi "where it was" of the Book of Lecan $=$ in bail a mboí of the Rennes version (both printed as an appendix to

[^35]8 Watkins, op. cit., p. 70-1.

Thurneysen's text, op. cit. p. 23). This word has a by-form baile "place" entered in Pokorny's IEW ${ }^{9}$ as *bhuz-liiio-. Throughout the history of Irish the living lenition product of the $b$ - reflecting IE *bhw- is the same as that of other $b$-'s, namely $\beta$ - (in OIr. spelt $b$-), which means that this covers only one living morphophoneme b. This is so in the glosses, too: Ml. 61 ${ }^{\text {b }} 17$ amal bid "as if it were", but here again we find remnants of lenited forms in $f-:$ Ml. $34^{\mathrm{b}} 11$, $37^{\mathrm{b}} 22$ amal fid. ${ }^{10}$ In spite of the limited number of the $f$-forms, their joint testimony weakens the cogency of Watkins's first coun-ter-argument to a very considerable degree. Words with original *bhw- are extremely scarce, and so a morphophonemic alternation $b-\sim f$ - might easily yield to the pressure of any levelling analogy however meager. Indeed the verb "be" itself does have forms with original *bh-not followed by ${ }^{*}-w$-. Thus the $3^{\text {rd }}$ sg. pret. of the substantive verb boí (or baí) must go back to some such form as *bhowe, ${ }^{11}$ which in no way lends itself to an alternation with $f$-. It is perhaps significant that the occasional $f$-forms of "be" do not to my knowledge include any instance of *foí (or *faí) for this form.

Watkins's second argument is untenable, too. Even if $f$ - of fer did represent the joint reflex of ${ }^{*}-s+{ }^{*} w$ - in ${ }^{*}$ sindos wiros $>$ in fer, it would be distorting the probability measures to claim the same for, say, fid "wood" which is a feminine noun: *sindä wedhus $>$ in fid (phonetically probably $i^{\prime} N^{\prime} i \delta^{12}$ ). Sommerfelt was undoubtedly right in accepting Irish $f$ - and British $g w$ - (Welsh $g \hat{w} r, g w \hat{y} d d)$ as reflexes of the strong member of an underlying alternation $W: w$ matching that of $M: \tilde{w}, N: v, R: r$, and $L: l$. If the lenition products of IE * $w$, OIr. zero and Welsh $w$, are not weakenings of the respective reflexes of strong $W$, but represent developments of $* w$ independent of the oppositions of consonant quantity, as is assumed by Watkins, the Welsh facts become difficult to understand. The lenition of proclitic words such as Ml.W. and Mod. W. wrth "at, against", Mod.W. wedi "after", ar "on" (Bret. war) can only be brought in accordance with the Old Welsh spellings gurt, guetig/guotig, guor/guar by assuming that
${ }^{9}$ Julius Pokorny, Indogermanisches etymologisches Wörterbuch, p. 148.
10 This material is of course not new. It can all be read in Thurneysen's Grammar, p. 78, but it does not appear ever to have been brought into connexion with the problems of the $-f$-future in any of the previous writings on the subject.
${ }^{11}$ Thurneysen. Grammar, p. 483. Watkins, Idg. Gr. III,1. p. 150.
${ }^{12}$ fid has (analogical) neutral / $\delta /$, cf. the Modern Scottish Gaelic form /fiə $\gamma /$ reported in Oftedal's The Gaelic of Leurbost, NTS Supp. IV (1956).
$[g w]$ was lenited to $[\gamma w]$, which in turn went to $[w]$, at the same time as $[g]$ was lenited to $[\gamma]$ and further to zero. The same representation of IE * $w$ is found in OW. petguar = Mod.W. pedwar "four" which proves with all the clarity we could wish that the preliminary strengthening of $* w$ to $g w$ prior to lenition was not restricted to the position after original *s.

A morphophonemic reinterpretation of the alternations between radical and lenited consonants may lead to some interesting results, if we bear in mind the principles of Sommerfelt's analysis of the degrees of consonant quantity. If we accept the basic equation of $|d|$ as a geminated $|\delta|$, the alternations $|d| \sim|\delta|$, $|t| \sim|b|,|g| \sim|\gamma|,|k| \sim|x|,|N| \sim|\nu|,|M| \sim|\tilde{w}|$, etc. can all be re-analyzed as $\delta \delta \sim \delta, b b \sim b, \gamma \gamma \sim \gamma, x x \sim x, \nu \nu \sim v, \tilde{w} \tilde{w} \sim \tilde{w}$, etc. This is certainly in keeping with the fact established by David Greene that "gemination" is in fact nothing but the absence of lenition $:^{13}$ "strengthened" merely means "not weakened". The choice of gemination as the basic characteristic of the alternation is certainly arbitrary, but it is preferred to some diacritic sign of "weakening" because it makes the hierarchy stand out quite clearly.

We can then construct the underlying forms of a few alternations that interest us here:

| IE | OIr. phonetic shape |  | Underlying form |  |
| :--- | :---: | :---: | :---: | :---: |
| unlenited | lenited | unlenited | lenited |  |
| $* m$ | $M$ | $\tilde{w}$ | $\tilde{w} \tilde{w}$ | $\tilde{w}$ |
| $* s m$ | $s M$ | $M$ | $h h \tilde{w}$ | $h \tilde{w}$ |
| $* s$ | $s$ | $h$ | $h h$ | $h$ |
| $\# w$ | $f$ | zero | $w w$ | $w$ |
| $* s w$ | $s$ | $f$ | $h h w$ | $h w$ |
| $*-N w-$ |  | $M$ |  | $\tilde{w} w$ |
| $*-N b(h)-$ | $b$ | $w$ |  | $\tilde{w} \beta$ |
| $* b(h)$ | $b$ | $?$ | $\beta \beta$ | $\beta$ |
| $* b(h) w$ |  | $?$ | $\beta \beta w$ | $?$ |

The question is now, what would come out of lenited $* b(h) w$ ? It is clear at once that the underlying form should be $\beta w$, since the lenited morphophonemes are everywhere formed from the unleni-

[^36]ted by simplification of the geminates. But how should $\beta w$ be pronounced? It seems to be equally close to $w w$ and to $\beta \beta$. But $\beta \beta$ is pronounced $[b]$ and is identical with the $\beta \beta w$ of the radical, which would require us to assume that nothing happened on the phonemic level, a very unlikely assumption in view of the otherwise global application of lenition. There remain then two possibilities: either $\beta w$ was realized in the same way as $w w$, i.e. as [ $\varphi$ ], or else it had a pronunciation of its own. As hinted above, the total lack of $p h$ in the spelling of the $f$-future is perhaps indicative of a significantly different pronunciation of original *sw and *bhw also in lenition position. If $p h$ does stand for something special it gives to intervocalic *sw a place apart from initial * $w$ and intervocalic *bhw. In that case I would think of a labiovelar or labiolaryngal spirant $\left[x^{w}\right]$ or $\left[h^{w}\right]$, in accordance with the underlying form $h w$. In Latin loanwords $p h$ may well be the notation of the lenited member of an alternation $[p] \sim\left[h^{w}\right]$, replacing earlier $\left[k^{w}\right] \sim\left[x^{w}\right]$. Be this as it may, the analysis of the underlying forms leaves very little room for $\beta w$ (lenited *bhw) to be realized in any other way than $[\varphi]$, i.e. exactly like $w w$ (unlenited *w).

It will be seen that we do posses pertinent (if scarce) evidence to support the assumption of $*-b h w \bar{a}-$ as the source of the OIr. future morpheme of derivative verbs.

We now want to know where this morpheme comes from.
A sequence ${ }^{*}$-bhw $\bar{a}$ - can hardly be anything but a form of the verb "be" furnished with the suffix ${ }^{*}-\bar{a}$ - of the future or the subjunctive. But the future of the substantive verb is bieid $\sim \cdot$ bia, and the prs. sbj. is beid $\sim \cdot b e ́$, representing two different formations only secondarily fitted into the same paradigm. The form -bia is obviously the - $\bar{a}$-derivative of biid, i.e. it was made as the sbj. of the habitual present. The substantive verb is the only one to possess a habitual, which may be important in this connexion. The fact that the fut. of *bhew- (*bhu-bhw- $\bar{a}-$ ) could come to be confused with the subjunctive of the habitual *bhw-iie $/ 0_{0}$ - (i.e. with *bhwiia $a t$ t must mean that the predecessor of the future with reduplication and $*-\bar{a}$ - had close semantic affinities with both of these categories, modally with the subjunctive (therefore ${ }^{*}-\bar{a}-$ ), and aspectually with the habitual. It must be this aspectual value that is expressed by the reduplication. It follows that the original difference between the two formations was very slight, the latter
being merely an emphatic, perhaps iterative, variant of the former. This in turn means that a form like *bhubhwāt would lend itself to two different analyses: 1) Reduplicative syllable *bhu- + root *-bhw- + modal morpheme $*-\bar{a}-+$ desinence. Or 2) Root *bhu- + an element ${ }^{*}$-bhw- + modal ${ }^{*}-\bar{a}-+$ desinence. At first glance, 1) would be the only natural solution, 2) being excluded by the non-existence of an element *-bhw-. Nevertheless, analysis 2) must be the way the form was in fact segmented at a certain stage of the language history. The reason for the giving up of analysis 1) must have to do with the taking over of *bhwiinat, expressing the aspectual shade by stem-formation instead of reduplication. This in turn made the form *bhubhwāt superfluous, and it became a mere variant of *bhwiidat.

Now, and only now, is the form *bhubhwat likely to be analyzed in a way that singles out an element *-bhw $\bar{a}$ - of the same function as the *-iin $\bar{a}-$ (i.e. $/-y y \bar{a}-/)$ of *bhwiịāt (|bhwyyāt/) as contrasted with *bhubhwāt (/bhwbhwāt/). Another factor blurring the analysis of *bhubhwāt was in all probability the generalization of the initial alternation $[b] \sim[\beta]$ originally restricted to cases where *bh- was not followed by *-w- (boí above) to cover also cases where it was. Once the intervocalic *-bhw- had become - $\varphi$ (or just something different from $|b|$ or $|\beta|$ or a combination of these), the resulting form, /buqāt/ or the like, could no longer be analyzed as a reduplicated form, because now the unreduplicated *bhwāt had only the alternants $|b \bar{a} t|$ and $|\beta \bar{a} t|$, the old regular lenition variant $/ \varphi \bar{a} t /$ being restricted to the marginal use preserved in the conjunction $f a$, fá "or".

The joint operation of all this would lead to the establishing of a new and characteristic (and therefore successful) future morpheme. Thus the non-existence of a form */bupāt/ is no counterargument, as its previous existence is demanded by the structure of the Old Irish conjugation, and its ousting rather favours than impedes the analogical almost unlimited use of its elements.

A comparison between the personal forms of the $f$-future and those of the $\bar{a}$-subjunctive is not without complications:


Note on the phonemic transcription: It may not be quite superfluous to remark that $|\beta|$ and $|\varphi|$ are here used of two phonemes, both occasionally entering into the alternation $|b| \sim$ $|\varphi| \sim|\beta|$ constituting the morphophoneme $\varphi$.

From this table two incongruities spring to the eye: 1) The $u$-quality of -marbub vs. the neutral quality of -ber, and 2) the spreading palatal quality of the cluster $-\beta \varphi$-, a fact that can hardly be reconciled with the etymological analysis: *mrwābhwāti can only lead to */mar $\beta \varphi \partial \delta^{\prime} /$, cf. the neutral quality of the imperfect marbfad < *mŕwābhwāto.

The $1^{\text {st }}$ sg. -marbub points to a thematic formation *mriwābhwo (like Latin $a m \bar{a} b \bar{o}$ ). The other persons of such a paradigm would present palatal quality here and there: $3^{\text {rd }} \mathrm{sg}$. ${ }^{\text {mrwa}}$ mhweti could very well yield the mairbfid* of the table. On closer inspection, however, this would meet with insurmountable obstacles: The ending of the $3^{\text {rd }}$ sg. -mairbfea would have to be thought of as taken over from the $-\bar{\alpha}$-paradigm, and not even this would explain the palatal quality of the $3^{\text {rd }} \mathrm{pl}$. by-forms, where $*$-bhwonti, *-bhwont would be of no avail. One must therefore accept the old theory of analogical influence from the palatal quality of the
$-\bar{i}$-stems: $3^{\text {rd }}$ sg. léicfid is the regular reflex of a form in $*-\bar{\imath}-b h w a \bar{t} t$. But why $u$-quality in the $1^{\text {st }} \mathrm{sg}$.? One possibility is that it represents a form of the subjunctive ending older than the neutral zero presented by the subjunctive itself. In that case *hero was once the form of the sbj., just as it is in Vedic bhárā. Then at a certain stage a polarization must have taken place, whereby the forms with thematic vowel (whether $*_{-}^{*-},{ }^{*}-o-$, or ${ }^{*}-\bar{o}-$ ) have been restricted to the indicative as a contrast to the $*-\bar{a}$ - used to mark the subjunctive, where it was subsequently demanded in all forms. This lead to the symmetry of indicative $\left|b^{\prime} i r^{w_{u l}}\right|:\left|-b^{\prime} i r^{w}\right|$ (final vowel $-u$ vs. $u$-quality of final consonant) and sbj. $/ b^{\prime}$ era/:/-b'er/ (neutral final vowel vs. neutral quality). The derivation of the $f$-future must, therefore, have been completed before this polarity worked its influence.

It will be seen that this analysis of the $f$-future as containing a morpheme singled out of an originally reduplicated form of a highly frequent verb constitutes a close parallel to the theory about the Germanic weak preterite advanced in 1963 by G. Bech. ${ }^{14}$ It is interesting to note, too, that a similar (and to my mind convincing) theory was presented by Johnny Christensen at a meeting in the Linguistic Circle of Copenhagen in May 1965, concerning Latin amābam, -bās, -bat..., seeing in amābant a morpheme segmented off by wrong decomposition of the reduplicated formation seen in Oscan fufans. The process may indeed have been the same as the one here described for Irish: Once *bhubhwā- had become fuf $\bar{a} \|: f u b \bar{a}-$, the analysis as a reduplicated form of fuādemanded a living morphophonemic alternation $f u-\sim-f-\|-b-$ of some frequency (i.e. with a worth-while functional load). This alternation being exceedingly rare, the $-f$ - $/ /-b$ - came to be perceived as part of the suffix $-f \bar{a}-\|-b \bar{a}-$. Though "do" is not found in Gothic, and *fubant not in Latin, there can be little doubt that the same kind of analogy worked out a morpheme presenting all the good qualities of a productive suffix, being over-characterized, hiatus-filling, and easily inflectible, and so especially applicable to derivative verbs. This paper merely ascribes the same influence to a Pre-Old-Irish underlying form */bupāt/.

14 Gunnar Bech, Die Entstehung des schwachen Präteritums, Hist. Filos. Medd. Dansk. Vid. Selsk. 40, no. 4 (1963). Note especially the identity between the endings of Goth. salboda and OHG teta, or between Goth. salbo-dedum and the whole of OHG tātum.

It will be seen, finally, that this paper does not ascribe any "Italo-Celtic" age to the *bhwā-formations. Latin and Irish merely had the same possibilities of analogical change, and so even a correspondence as close as this need not surprise us very much. It is, however, indicative of a very marked degree of structural similarity between Italic and Celtic testifying to a close cultural contact of a kind likely to produce cases of linguistic convergence typical of an incipient Sprachbund.

## V

## The Labialized Laryngeals of Lycian

The system of laryngeals in the Anatolian cuneiform languages comprises two elements only kept apart in intervocalic position, viz. -h- and -hh-. The etymological basis of this opposition represents an old issue; the best solution is, however, in all probability that the graphic difference covers a phonological opposition in terms of Sturtevant's Law (whether this is an opposition of voice or one of tenseness ${ }^{1}$ ). It is clear from Crossland's ${ }^{2}$ review of the situation that $-h$ - and $-h h$ - are not allophones, but represent separate phonemes of separate etymology, a doctrine that has also been accepted in Lindeman's survey ${ }^{3}$ where we read the reconstructions: ${ }^{*} H_{1}$ (voiced palatal fricative) for $-h$ - and ${ }^{*} H_{2}$ (voiceless velar fricative) or ${ }^{*} H_{3}$ (voiceless labiovelar fricative) for $-h h-$

The facts of the other Anatolian languages are less transparent. The graphic system of Hieroglyphic Luwian probably presents only the one laryngeal $|h|$ with no further distinction: huha- $=$ Hitt. huhha- "grandfather". The sign $\dot{a}$ might a priori be expected to contain the reflex of a laryngeal, ${ }^{4}$ but the attitude expressed by Laroche seeing in it merely an allophone of initial position (perhaps with a glottal catch) is probably more easily reconciled with the attested facts. ${ }^{5}$

Lydian in a few instances appears to respond with zero, cf. especially eśa-v "grandson" (acc.sg.) to Hitt. has- "beget", hassa"grandson". The old equation $\Gamma$ '́ $\eta \eta s=$ huhhas ought probably

[^37]not to be bluntly rejected, seeing that we do have evidence for plosive arisen from laryngeal also in Lydian writing, cs. kofu- $\lambda-k$ "and to the water" (dat.-loc.sg.) to Hitt. hap- "river". ${ }^{6}$ On the other hand, under the present circumstances it would no doubt be rash to form an overly rigid idea of the development of laryngeals in Lydian.

In the case of Lycian it has long since been recognized that the character transcribed as $\chi$ by one tradition (Bugge, Torp, Thomsen, Pedersen, Laroche) and as $k$ by the other (Kalinka, Friedrich, Meriggi, Gusmani, Ševoroškin) represents a dorsal spirant $[x]$, being the usual correspondence of Hitt. $h$. One may compare, e.g. Lyc. $\chi \tilde{n} n a h i$ "of the grandmother" (genitival adjective) to Hitt. hannas; $\chi$ ñtawata dat.-loc. "reign": Luw. hantawata- "commandant";7 qugaha "to those of the grandfathers" (dat.-loc. of gen. adj.) : Hitt. huhhas; $\chi$ ahba "son-in-law"' Hitt. hassa- 'grandson"; a $\chi q$ "I made (it)", me-pijaұq "I reserved (it), I gave (it)", prñnawaxa "I built (it)", a ${ }^{\text {" "I made", se-pijaza "and I reserved/ gave" }}$ : Hitt. $1^{\text {st }}$ sg. prt. -hun, Luw. -has ; laqadi instr. '"with the (military) campaign"' : Hitt. lahhai-; žxate "they defeated" : Hitt. zahhanzi "they defeat".

[^38]Instead of this $\chi$ we find in a number of instances its alternant $g$ which is phonetically in all likelihood a voiced spirant $[\gamma]$, cf. the afore-mentioned $\chi u g a h a$ and the verbal form $a g q$ alternating with a qq. Further examples are supplied by the hesitation in the spelling of the following proper names: zagaba (44a42, and coins) : zaұabaha (coin no. 192 a); ұezigah (44a31): ұezixa (65.17); ұeriga (44c37, c50, coins) with the derivatives $\chi$ erigahe (44a10), ұerigasa (44d8), ұerigaz: e (44d19), ${ }^{10}$ ұerigaz $\tilde{n}$ ( 44 d 45 , d53f): ұer[i]रehe (43.2); and Mil. umrggazñ (44c49): Lyc.A humrqұa (44a55). In initial position $g$ is the substitute for Iranian $g$ : gasabala < "ganjabāra "tesoriere" (Meriggi). ${ }^{11}$ As is seen from the examples this $g$ had no phonemic status in genuine Lycian words representing merely the allophonic voicing of intervocalic $\chi$.

The letter traditionally transcribed a $q$ was already before the turn of the century determined by Holger Pedersen as a labiovelar spirant $\left[x^{w}\right],{ }^{12}$ True, the etymologies on which Pedersen based this phonetic interpretation, are untenable. We know now that qla "assembly, precinct" (Pedersen translated "people") has nothing to do with Skt. kula- "family", and in the case of the alleged numeral qarazu (subtracted from qarazutazi 44b41) we have no reason for assessing it at precisely " 40 ", nor would this in its turn justify the conclusion of spirantic pronunciation (moreover, it remains completely uncertain whether it is a numeral at all and to be segmented off in this shape). As far as the main content of the hypothesis is concerned, however, Pedersen was undoubtedly right, as we can prove with almost complete certainty that $q$ possessed both distinctive features needed for labelling it a rounded fricative.

The spirantic nature of $q$ has been evident since its correspondence with Hitt. and Luw. $h$ was established by Pedersen in $1945 .{ }^{13}$ One need only cite such well-known etymologies as Lyc. qąti "he judges, punishes", $3^{\text {rd }} \mathrm{pl}$. qąñti $=$ Hitt. $3^{\text {rd }} \mathrm{pl}$. hannanzi, with the iterative Lyc. qastti $=$ Hitt. haskizzi; Lyc. qla "assembly"

[^39]: Luw. hila- "enceinte" ${ }^{14}$; and the God's name Lyc.A trqqas, Mil. trqqiz $=$ Luw. ${ }^{\text {d Tarhunz. These and a few further examples }}$ will be discussed at some greater length below.

The additional feature of roundedness in the articulation of $q$ is clear from its effect on a preceding nasal, which always appears as $\tilde{m}$ (instead of $\tilde{n})$. The following clusters of nasal + stop are permitted in the body of Lycian texts: ñt (ñte "inside" = Luw. anda, ñtepitasñti "they shall bury", sñta probably "a hundred"'15), $\tilde{n} z$ (phonetically [nts] : Mil. qr̃za 44d35, according to Ševoroškin ${ }^{16}$ dat.pl. "to the families" to Hitt. hanzassa-; $\chi s s e ̨ \tilde{z} z i j a ~ 150.1 \mathrm{PN}$; ñzzijaha 29.8 of unknown meaning), ñk (probably [ $\eta k$ ], e.g. ñke $112.2=$ eqke conj. "after"; tisñ-ke 89.3 acc. "whiche̊ver'" ${ }^{17}$ ), $\tilde{m} p$ (Mil. arm̃pq acc., according to Ševoroškin a ritual appellative: Hitt. arimpa- "Bronzegerät im Ritual" ${ }^{18}$ ); miparahe 104b. 3 PN gen.). Clusters of two nasal graphs take the form ñn (arñna the city of "Xanthos"; $\chi \tilde{n} n a-$ "grandmother"; kbisñni a numeral, " 20 " or " 200 "; trisñni " 30 " or " 300 ") or $\tilde{m} m$ (trinmili "Lycian", kñmis 110.2, 124.9 "biers"' ${ }^{19}$ ), 白mije 143.2 PN dat. ${ }^{20}$ ). Clusters with spirantic second element show the same assimilation of the nasal: $\tilde{n} \chi[\eta x]$ ( $\tilde{n} \chi r a h i d i j e ~ 29.2$ of unknown meaning; with morpheme boůndary, epñ- $u \chi a$ 127.1 PN gen. ${ }^{21}$; ap $\tilde{n}-\chi a h b[i j] a 18.2$, a term of relationship) and, more important, $\tilde{m} q$ (Mil. $\tilde{m} q r e ~ 44 c 40$,
${ }^{14}$ Laroche BSL 55 (1960), p. $183^{3}$.
${ }^{15}$ I note in passing that this numeral is not diagnostic for the assignment of the labels satem and centum, being in all probability a loan-word from Persian sada. The correspondence $-\tilde{n} t-=-d$ - and the syncope recur inter alia in the example "Lykisch sppñtaza $=$ iranisch *spādāza-" treated by Rüdiger Schmitt KZ 85, p. 43-48.
${ }^{16}$ Lidijskij jazyk, p. 62; Voprosy Jazykoznanija 1968 No. 6, p. 79f; Orbis 17, p. 487; Šev.-Koro'lov, Arch. Or. 37, p. 532.
${ }^{17}$ Acc. of tise "whoever" + ke, cf. Pedersen, Lyk. u. Hitt., p. 22, and Laroche, $B S L 55$, p. 177 ff .

18 Vop. Jaz. 1968,6, p. 75, and Orbis 17, p. 483, both times rightly against Gusmani, Arch. Or. 36, p. 8 (personal name acc. < *Arma-pijama-).

19 V. Thomsen, Etudes lyciennes I (København 1899), p. 13, "quelque objet transportable ou l'on peut placer les cadavres''.
${ }^{20}$ Dat. of pers. name $A \mu \mu \iota$, cf. Houwink ten Cate, The Luwian Population Groups (Leiden 1961), p. 103, and G. Neumann, Handbuch der Orientalistik I, II, 2 (Leiden 1969), p. 384.
${ }^{21}$ Without the $-h\left(i_{i e}\right)$ of the genitive. Neumann, loc. cit. p. 384, assumes loss of -h. In his unpublished MS of a series of lectures held at the University of Copenhagen in 1946, Pedersen analyzed the word as an onomastic use of an appellative meaning "great-grandfather". Sevoroškin, Étimologija 1965 (1967), p. 233, appears to take it as an appellative even in the present text ("pra-ded"), which is obviously a mistake, seeing that the builder introduces himself as "the son of Epñu $\chi$ a".

44 dl , d54, perhaps $55.1^{22}$, which will be treated below together with its other inflectional forms, and the completely obscure Mil. qũqi-ke 55.6). Heterogenous nasal combinations are alien to the language, and there are no instances of * $\tilde{p} p$ (apart from the fortuitous combination of preverb and verb as ep $\tilde{n}$-pijete, ep $\tilde{n}-$ $p u(w e)-$, Mil. epñ:- predi), *ñm (discounting scribal errors like padrñma 49.1 for regular padrm̃ma 48.8, cf. padrñmah 11.1, padrm̃mahe 48.6, and, with a different way of noting the open contact between $|r|$ and $/ m /$, padrqma 48.2 ), * $\tilde{m} t$ (except for the isolated zeñtija 44a41), or of $* \tilde{m} k$ ( $t \tilde{m} k r e \underline{5} 5.1$ is probably a wrong reading: Ševoroškin reads $t \tilde{m} q r \underbrace{23})$, nor are ${ }^{*} \tilde{m} n$, $* \tilde{m} \chi$, or, more important, * $\tilde{n} q$ ever met with. Although this proof must be considered cogent in itself it is no less interesting to note that the phonematic rounding of $q$ hereby established is corroborated by defensible etymologies.

In view of the Lycian rounding I do not believe that qati, Hitt. hannāi "punishes" is connected with Gr. $\dot{\alpha} v \alpha i v o \mu \alpha \iota$ as proposed by Čop. ${ }^{24}$ Certainly the resemblance between the Greek verb and the Hittite derivative hanhanijai "blames" inspires immediate confidence (even if a direct equation is dismissed by Čop himself as '"zu kühn'"), but there exists another, and to my mind preferable, possibility of etymological connection, whereby the Lycian demand for labialization can be met. I am thinking of $\dot{\alpha} \tilde{\alpha} \tau \alpha \iota$ "damages, deceives" from * $\alpha \dot{\alpha} \varepsilon \tau \alpha \iota$, a secondary thematicization of an old athematic verb. ${ }^{25}$ To this verb are found the abstract ${ }_{\alpha}{ }^{\prime} \tau \eta$ "deception", Lesbian $\alpha v \alpha \tau \alpha$ (both $<* \alpha F \alpha \tau \bar{\alpha}$ ) and the iterative verb $\dot{\alpha} \alpha \dot{\alpha} \sigma \varepsilon i \cdot \varphi \vartheta \varepsilon$ ígé (Hes.). The last-mentioned form may be identified with the Anatolian iterative: both $\dot{\alpha} \dot{\alpha} \sigma \varkappa \varepsilon$ - and haskimay unforcedly be derived from a protoform ${ }^{*} H^{w}{ }_{\text {nog }} s k e-$. The first steps in the development must, then, have lead to $* \alpha F \alpha \sigma \varkappa \varepsilon$ - and * $h^{w}$ anske- in the individual dialects. As is seen from such instances
 blowing', the group laryngeal $+|w|$ is preserved in Hittite (provided, of cource, the laryngeal is retained). In the initial conso-

[^40]nantism of qastte and haskizzi we must, therefore, assume a more intimate combination of spirant and lip-rounding than in the case of huwant-. The form ${ }^{*} H^{w}$ noske- thus arrived at has two advantages: it corresponds structurally to the well-known formation *g ${ }^{w} \mathrm{~m}_{\mathrm{o}} s k e-(\mathrm{Gr} . \beta \alpha ́ \sigma \kappa \omega$ and Skt. gácchati), and we understand why a sequence /Hwns/ has not resulted in *Huns-. The Lycian radical verb qati is then explainable as from ${ }^{*} H^{w} e n-t i$ presenting the same structure as the Skt. root-aorist $a^{-g}$ gan (* $g^{w} e m-t$ ).

The word qla "assembly" is trickier; but if we take the underlying form to be ${ }^{*} H^{w}(V) l a$ - the connection with Doric ${ }_{\alpha}^{\alpha} \lambda i \bar{\alpha}$ "assembly", Ionic $\dot{\bar{\alpha}} \lambda \eta \eta^{\prime}$, Aeolic $\dot{\alpha} o \lambda \lambda \eta \eta_{s}$ "gathered, crowded" becomes evident. The Greek words then go back in the first instance to $* \alpha F \alpha \lambda v$ - (with the suffixes *-iij $\bar{a}$ and $*-\bar{e} s$ ), behind which we may safely posit an IE * H wln-. There remains, however, the difficulty presented by the vocalism of Luw. hila-, Hitt. ${ }^{E}$ hīla-, ${ }^{E}$ hēla"courtyard", whose spellings hardly indicate an initial cluster, but rather reveal an underlying form $/ h\left({ }^{w}\right) e l a-/$. We are dealing here with one of the cases where Luw. i corresponds to Hitt. e, a situation seen in e.g. Luw. issari- $=$ Hitt. kessera- "hand". ${ }^{26}$ Further proof that the $-i$ - of hila- is in fact an old $* e$ is supplied by the zero-grade alternant seen in Hitt. ${ }^{E}$ hilamni "im Torbau" with the variant ${ }^{\hat{E}}$ kilamni presenting an incorrect writing of $k$ instead of $h$ otherwise only seen in consonant clusters ${ }^{27}$ and so undoubtedly indicative of the reading /hlamni/. In spite of all the difficulties we have, then, no possibllity of deriving Lyc. qla from anything other than IE * $H^{w}$ elo-.

The most conclusive piece of evidence is that of the theonym trqqas, Mil. trqqiz, corresponding to Luw. ${ }^{\mathrm{d}}$ Tarhunz, Hitt. ${ }^{\mathrm{d}}$ IMunz. Unless the Luw. form is merely a graphic representation of [tarx $\left.{ }^{w} n n_{0} t s\right]$ with preserved syllabic nasal, we must operate with two distinct Anatolian proto-forms, *tar $H^{w}$ ants and *tarHunts presenting a difference of vocalization of the same underlying phoneme sequence $/ C x^{w_{n}} C /$; the IE proto-form is probably to be posited as *ter $H^{w-n t-.}$ The word is undoubtedly connected with Hitt. (-za)

[^41]tarhzi "conquers". The graphic notation of this verb presents some very interesting variations, thus the three-fold shape of the $3^{\text {rd }}$ sg.: tar-ah-zi, tar-hu-uz-zi, ta-ru-uh-zi. This variety of forms may safely be boiled down to the common denominator /tarh ${ }^{w} z i /,{ }^{28}$ especially if we compare the writings $e-k u-u z-z i$ and $e-u k-z i$ both noting $\left|e k^{w} z i\right|$ "drinks". ${ }^{29}$ We probably have a cognate of this group of words in Gr. $\tau \iota \tau \varrho \omega \sigma \kappa \omega$ "pierce, damage". Judging from the further testimony of the abstract $\tau \varrho \tilde{\omega} \mu \alpha$, Attic $\tau \varrho \alpha \tilde{v} \mu \alpha$, we must accept Martinet's ${ }^{30}$ labialized laryngeal and posit the IE protoforms *ti-tro $H^{w-s k e}$ and ${ }^{2} r_{0} H^{w-m n}$. The Skt. forms tarute (prs.ind. middle of the semi-modal tárati) and tárutro' "conqueror"'31 have vocalized this laryngeal as $-u-$ : IE *erH ${ }^{w}{ }^{w}-t$-.

To the list of words containing $q$ to which I venture to propose an IE etymology, may be added the Milyan ("Lycian B") nominal stem $\tilde{m} q r e-$. This word is taken by Ševoroškin as a designation for "ancestors". It occurs repeatedly in conjunction with a word abura which must mean something like "(living) people" as appears from its contrast with eke dat.pl. "to the dead". This would give to the word $\tilde{m} q r e$ - itself a meaning like "dead, deceased", which suits the contexts well enough, though not accepted with this meaning by Ševoroškin himself. He translates ${ }^{32}$ 44c40f m̃qrę: muri: tupleleimi [---] laz: sebe sbirte pzziti:lelebedi: $\chi \tilde{n} t a b a s i:)$ - - as "(Hier . . ) wirft der kriegerische Sieger/ Kämpfer den $\tilde{m} q r e$, die -as und das anführerische Denkmal durch Angriffe nieder" with a note explaining $\tilde{m} q r e$ as "irgendeine Personenklasse (viell. Priesterschaft bzw. Adel . . .), hier der gegnerische $\tilde{m} q r e$, der niedergeschlagen wurde.' If the general sense of Ševoroškin's translation is correct, one would rather tend to understand $\tilde{m} q r e . . \chi_{n} n t a b a s i$ as "the body of the (fallen enemy) leader", who, together with the memorial of his ancestors, is removed or otherwise treated with contempt (Hitt. pessijazzi) by the victorious Xeriga. This appears to agree with 44 d 1 [me-]

[^42]ṇe-d(e) $\tilde{m} q r e: ~ e t r q q i ~ t u w i j e d i ~: ~ q r b b l i: ~[z] i r e i m e d i ~ w h i c h ~ i s ~ t r a n s-~$ lated by Ševoroškin, ${ }^{33}$ "Nun ehre ${ }^{34}$ den $\tilde{m}$. in $q$. durch verzierte 'Weihung'". If qrbbli is connected with Hitt. harpali- as assumed by Š., it means "on the altar". Š. makes the annotation that $\tilde{m} q r e$ denotes "eine Gruppe von Menschen (Ahnenschaft??)". The characteristics of this group would, however, consist in their capability of being the object for religious "consecration', ${ }^{35}$ We are now practically forced to think of the translation "manes". This meaning is almost completely certain at 44 d 65 ff रumala-de nęnijeti: mas $\chi \chi \tilde{m}$ ti (i)je: qzze/ miręñne: $\chi$ inasi-ke : sesi: $\tilde{m} q r i-k e$ (a)bura seb(e) e/nesi-ke tedesi-ke: $\chi$ ugasi: $\chi n ̃$ ntawaza:). Ševoroškin's translation reads, ${ }^{36}$ "Kumala leitet die Anordnung an die Nachkommen des mire (wohl des Königs Keriga), an seiner und seiner Grossmutter m̃qre und abura (Ahnen und Verwandte . . .?), sowie and den mütterlichen, väterlichen und grossväterlichen kñtawaza'". The subject worships his relatives, whether these be still alive (abura) or only accessible in the manifestation of the manes (m̃qre). To this may be added 44d53ff me-ұeri[ga]/zñ: m̃qre : . . ./. . ląte: (e)ripsse "den $\tilde{m} q r e ~ d e s ~ K e r i g a ~ . ~ . ~ . ~ e n t s u ̈ h n t e / ~$ verehrte (?) aber der Übermächtige (wohl = Keriga)". ${ }^{37}$ Whoever is the subject, $\tilde{m} q r e$ must in any case be the object of late which Š. very convincingly derives from the Lycian correspondence of Hitt. lā- "untie, release". We read then something like "they released the manes of Xeriga", which can hardly be understood in any other way than as referring to Xeriga's heroic deeds that have to a certain extent spared him the hardships of the Underworld.

At 44 d 58 there appears a form mañre. Though the context is obscure, the parallelism between this mã̃re-ke (a)bure and 44d66 m̃qri-ke (a)bura is, however, so clear that Ševoroškin remarks, "In d66 kommt statt maqurre D. Sg. m̃qri vor". ${ }^{38}$ It is not altogether clear whether he considers mqũre and $\tilde{m} q r i$ two case-forms of the same stem. 44 d 27 f tasñ . . męmrezñ is translated by Ševoroškin ${ }^{39}$

[^43]as "das Denkmal der Ahnen", but the morphological details are not entered into. ${ }^{40}$ There exists, no doubt, a serious possibility that the forms acc. $\tilde{m} q r e$, dat.-loc. $\tilde{m} q r i$, and dat.-loc.pl. mañre belong together in one paradigm. First we must remember that $\tilde{m}$ is before $q$ merely a nasal archiphoneme (as stated above, no instance of $* \tilde{n} q$ occurs in the inscriptions); phonemically, then. we have $/ N x^{w} r-/$. A vowel must have disappeared between the nasal and the laryngeal, and we have now merely to look for an IE root ${ }^{*} n e H^{w_{-}}$or ${ }^{*}$ me $H^{w_{-}}$. The Indo-Europeanist need not thumb through Pokorny's IEW very long, till he finds the old acquaintance *nāu-"Tod, Leiche". Of this root ORuss. navb "dead body" presents the same pre-vocalic alternant as pravz "right" of preH ${ }^{w}$-. ${ }^{41}$

How may this now be reconciled with maqnure? I have the impression that the difference between $\tilde{m} q r e$ and mañre is connected with a shifting accent. In an IE mobile paradigm the acc.sg. ( $\tilde{m} q r e)$ ) and the loc. sg. ( $\tilde{m} q r i)$ belong to the cases with stem-accentuation, while the dat.-abl. pl. (maq̃re) exhibits oxytony, as seen in e.g. Skt. pitáram pitári and pádam padbhyás, cf. Lith. acc.sg. dùkterí, dat.pl. dukterìms. We must, therefore, depart from:

| acc.sg. | *né $H^{w_{r-m}}$ | > | Anatolian | *náx ${ }^{\text {r }}$ an |
| :---: | :---: | :---: | :---: | :---: |
| loc.sg. | *né $H^{w_{r-i}}$ | $>$ | - | ${ }^{*} n a ́ x{ }^{w_{r} i}$ |
| dat.-abl.pl. | *ne $H^{w_{r} \text {-ós }}$ | $>$ | - | * ${ }^{\text {a }}$ ax ${ }^{\text {rás }}$ |

At this period a kind of Verner's-Law alternation has come about, whereby $x^{w}$ kept its voicelessness only after accented vowel, but succumbed to the pressure of the voiced surroundings after unaccented vowel:

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*náx*ran > *nax wran
*náx}\mp@subsup{|}{ri}{*}>>\mp@subsup{#}{nax}{\mp@subsup{w}{ri}{}
*nax*}\mp@subsup{}{\mathrm{ rás > nav wras}}{
```

Subsequently, the great loss of vowels that has characterized the Lycian words so strongly, takes place according to rules not sufficiently clear:

[^44]| * $n a x{ }^{\text {w }}$ ran | $>$ | *n $x^{w}$ ran | $>$ | ${ }_{0} x^{w_{r}}$ E |
| :---: | :---: | :---: | :---: | :---: |
| $*_{n a x}{ }^{\text {r }}$ i | $>$ | ${ }_{n}{ }^{2} x^{w_{r} i}$ | > | ${ }_{n}^{n} x^{w_{r}}$ |
| \%na ${ }^{\text {w }}$ ras | $>$ | ${ }^{*}{ }_{0} \gamma^{w_{r}}$ as | $>$ | ${ }_{0} \gamma^{w_{r}}$ e |

The nasal is now assimilated to the following spirant:

| ${ }^{*} \mathrm{n}^{*}{ }^{\text {r }}$ e | $>$ | $m_{\circ} x^{w} r \underline{\text { e }}$, written $\tilde{m} q r e$ |
| :---: | :---: | :---: |
| ${ }_{n} x^{w_{r}}$ | $>$ | $m_{0} x^{w_{r}} \boldsymbol{i}$, written $\tilde{m} q r i$ |
| $*_{\text {n }} \gamma^{w_{r}}$ re | > | ${ }_{*} m \gamma^{*} r e$ |

In the last-mentioned form there occurred the further assimilation nasalizing the spirant:

The development of *mmre to mañre is parallel to that of "nanijati (Hitt. nannijazzi "leads") to nęnijeti 44 d 65 , where we would reckon with a transitionary stage with loss of vowel: *nanijati > *nnijati > nęnijeti. In both of these cases a vocalic nasal followed by a (homorganic) consonant nasal develops into nasal consonant + nasal vowel.

Of the Lycian, as on the whole of the Anatolian, accent we know practically nothing. Lycian does, however, appear to offer some very precious examples of accentual shifts. When we find adi for "he does" and pijeti for "he reserves/gives", the distribution of $-d i$ and $-t i$ is seen to match that of $-g q$ and $-\chi q$ of the $1^{\text {st }} \mathrm{sg}$. forms agq and pija qq (both in the same line of the same inscription 149.13), and the thought of an accentual difference between the two verbal structures imposes itself. Luwian has ajatti and pijatti which we may easily conjecture to be accented /ájati/ and /pijáti/. We may compare, on one hand, Hitt. ijazzi ijanzi "do", probably a reduplicated verb of the type of Gr. i$\sigma \tau \eta \mu \iota$ or, if thematicized, Skt. tísthhati, accented in either case on the reduplicative syllable, and, on the other hand, Hitt. pāi pijanzi "give", an old athematic verb secondarily thematicized to |pijáti| in Luwian through a process comparable to that of Vedic yáuti yuvánti "unite" $\rightarrow$ yuváti yuvánti, i.e. with the accent on the thematic vowel. A development *ájati > *áiti belongs to the most natural of its kind, especially in a language presenting syncopation, and the monophthongization of ai to $a$ is known from Mil. pinati 44c57 "gives"
: Hitt, pijanāizzi "beschenkt". ${ }^{42}$ The different treatment of $-j a$ - in pijeti and pinati may also be ascribed to the effect of the accent. Hitt. pijanāizzi belongs to the laryngealistically interesting type I 3 of Friedrich's classification, presenting a suffix alternation between (originally accented) $-\bar{a} i$ - before consonants and zero before (originally accented) vowels (handaizzi:handanzi, cf. Goth. habaip: haband), which must be connected with the accent of the IE early ablaut period. The verb tadi "lays, buries" is probably to be judged in the same way as $a d i$ and to be derived from older *tájati (based on the paradigm seen in Hitt. dāi tijanzi whose thematicized form *tijáti probably underwent a shift of accent under the influence of *ijati = Luw. ajatti). The old radical accentuation of the athematic verb *Hénti gave the expected qati with -t-.

If, in fact, there existed at a certain period in the history of Lycian a regular alternation of voiced and voiceless consonants we must expect, too, to find our voiceless $q\left[x^{w}\right]$ matched by a voiced counterpart $\left[\gamma^{w}\right]$. Though the Lycian alphabet is basically of Greek origin, its details are clearly indigenous, and so we would expect it to contain a special letter for $\left[\gamma^{w}\right]$. Our attention is now quite naturally attracted by the otherwise superfluous letter $\mu$. This is commonly considered a bilabial spirant ${ }^{43}$ and transcribed (if at all) by $\beta$. But the language possesses one spirantic $b$ already, as is obvious from its use in the numeral $k b i h u=$ Mil. tbisu "twice" (formed like Hier. Luw. III tarsu "three times') with IE *dw-. Nobody would, I presume, maintain in full earnest that a language could distinguish, alongside with a $w$ (which is in Lycian doubtless a bilabial semivowel), two varieties of $[\beta]$. We have the following alternations:

$$
\begin{array}{ll}
p \sim b[\beta] \quad \begin{array}{l}
\text { pibijeti } 149.3 \text { and } 5,44 \mathrm{~b} 44, \text { redupl. }=\text { Luw. } \\
\\
\text { pipija- } 44
\end{array} \\
t \sim d[\delta] \quad \begin{array}{l}
\text { pijeti }: \text { adi above }
\end{array}
\end{array}
$$

42 Ševoroškin, Orbis 17, p. 471 f. I cannot accept his example, ibid. p. 473 Mil. pssat [i] 44d23 ''zerbricht", because the compared Hitt. word pissai- is not certified by Friedrich's Wörterbuch.
${ }^{43}$ Ševoroškin, Kadmos VII, p. 168; Atti del $1^{\circ}$ Congresso Internazionale di Micenologia (Roma 1968), p. 466 f (with the examples); Klio 50 (1968), p. 60: "es fragt sich, ob lykische $b$ und $\beta$ wirklich verschieden sind'’, Korol'ov and Ševoroškin, loc. cit., p. 538: "Viell. wurde durch $\beta$ der spezifische ägäische Laut [b] (stimmhafter bilabialer Spirant) wiedergegeben: das gewöhnliche hl. $[w]$ blieb ja im Lyk./Mil. erhalten'".
$\chi \sim g[\gamma] \quad$ pija $\chi q: a g q$ above
$k$ does not alternate: kikikiti 55.5 redupl. vb. of unknown meaning.

We see that the distance between the alternants is shorter in the velar pairs than in those with a more advanced articulation. As the alternant of $\left[x^{w}\right]$ we consequently expect a $\left[\gamma^{w}\right]$ in order to obtain the same phonetic distance as with $\chi:[\gamma]$.

The following is a presentation of the rather few examples of ${ }^{\mu}$. It is seen in the words:
$m r^{\mu \mu}$ as acc.sg. $44 \mathrm{c} 43, m r^{\mu \mu} d i 44 \mathrm{c} 32 \& 37,44 \mathrm{~d} 48 \mathrm{f}$, to which the possessive adjective $m r^{\mu \mu}$ asi 55.4 is added by Gusmani. ${ }^{45}$ Ševoroškin's interpretation ${ }^{46}$ as "word" may very well be correct: $m r^{\mu \mu}$ as is the object of uwęti which probably means "they write", cf. Lyd. uved, prt. ul "writes, wrote". Ševoroškin compares Lyd. mru-d, mruvaa-d "stele"'47 and further Avest. mrav-, $3^{\text {rd }}$ sg. prs. mraoiti, Skt. brávīti. If this comparison is correct the etymology of the Indo-Iranian verb based on the root *mel- (Gr. $\mu \varepsilon ́ \lambda \pi \omega \omega$ "sing", Czech mluva "language") must be given up. In that case brávīti/| mraoiti points immediately to *mréwz-ti revealing a cluster $|w H|$ and not a monophonemic rounded laryngeal. A proto-form *mrewHó-would develop regularly to *mraw ${ }^{\text {* }}$ - and further to *mrw $w a$, and so, under the assumption of the coalescence of * $\gamma w$ and $* w \gamma$ (and $* \gamma w$ ) into $/ \gamma^{w} /$, I find nothing to prevent the ultimate shape [ $\left.m r \gamma^{w} \gamma^{w} a-\right]$ (with gemination as in trqqas above).
$l a^{\mu}{ }_{r a} 44 \mathrm{c} 33 \mathrm{f} \& 37,44 \mathrm{~d} 34, l a^{\mu} r i 44 \mathrm{c} 43$. The latter was already in 1937 translated by Meriggi ${ }^{48}$ as "in der Schrift", by Gusmani ${ }^{49}$ 1968 as "stele" and by Ševoroškin ${ }^{50} 1968$ as "im Stein". For la ${ }^{\mu}$ ra Sev. has $1965^{51}$ "writing, inscription'", but later "stone slab, Steinplatten', ${ }^{52}$ both attempts being supported by Lyd. $\lambda \alpha \beta \varrho v \varsigma$ "battle axe" and Luw. lawar- "hew, break". We must then, apparently, depart from "stone" or "hew". A combination of these meanings seems to underlie the semantics of Gr. $\lambda \alpha v_{\varrho} \varrho \bar{\alpha}$

[^45]"mountain road", which is etymologically connected with Gr. $\lambda \tilde{\alpha} \varsigma<* \lambda \bar{\alpha} F \alpha \varsigma$ "stone", $火 \varrho \alpha \tau \alpha$ - $\lambda \varepsilon \omega \varsigma$ "hard as stone" (*- $\lambda \bar{\alpha} F o \varsigma)$ to which we may easily reconstruct the root ${ }^{*} l e H^{w_{-}}$. The Luw. - $w-$ reveals the voicing after unstressed vowels as, in the least, "Common Luwian" (Cuneiform Luw., Hier. Luw., Palaic [?], Lyc.), if not Common Anatolian. Lyc. lapra is thus seen to go back to ${ }^{*} l a \gamma^{w}$ ras < *loH ${ }^{w}$ rós.

The first member of the presumed compound alpana-laұ $(a)$ 44 c 60 has been compared by Ševoroškin ${ }^{53}$ to Hitt. alwanzatar "Bezauberung, Behexung" and the whole tentatively translated by "Hexenfeldzug (?)". It is completely impossible to see from the context what might be the role of the witchcraft thus read into the inscription. All we can see, is that a certain kind of "campaign" (la $\alpha$ - to Hitt. lahhai-) is neutralized ( $\chi$ radi to Hitt. harra- 'zerstossen, zerreiben, zermahlen''). If, however, the first component has been correctly assessed by Š., we may compare Gr. $\dot{\alpha} \lambda v \omega^{\omega}$ "I rage" ( $\left.<{ }^{*} \partial_{2} l u s i \bar{o}\right)$ together with the words treated in Pokorny's IEW p. 28. The point of departure must, then, be reconstructed as ${ }^{*} H_{2}$ l wó- which must first have undergone a metathesis to ${ }^{*} l H_{2}$ wó-, thereby taking the path to ${ }^{*} a l \gamma^{w} \dot{a}^{-}$, the basis of Lyc. $\left[a l \gamma^{w} a-\right]$ and Hitt. alwa-. The Hitt. -w- now makes us consider the voicing Common Anatolian, still on the assumption that the example is correct. We see once again that $\left[\gamma^{w}\right]$ may also stem from a cluster of laryngeal and $/ w /$ (or vice versa).

Finally, the genuine Lycian ("Lycian A") parts of the Xanthos Stele exhibit at 44 a 39 the fragmentary sequence $]^{\mu}$ adunimi which recurs at 44 a 40 in the longer stretch $] q a^{\mu}$ adunimi. Ševoroškin ${ }^{54}$ sees in this a personal name which he identifies with Linear A wadunimi. I find it totally impossible to draw any conclusions from this example, seeing that the questions of the general context and of word-division are completely open, to say nothing of lexical meaning and morphology.

We have seen that Lyc. $q\left(\left[x^{w}\right]\right)$ may in some words continue an IE rounded laryngeal, and $\mu\left(\beta,\left[\gamma^{w}\right]\right)$ not only such a laryngeal but also a cluster consisting of laryngeal and $/ w /$. Whether $q$ may also be derived from a cluster does not appear from the examples
${ }^{53}$ Orbis 17, p. 479. Somewhat more elaborate Korol'ov-Ševoroškin, loc. cit., p. 533 .
${ }^{54}$ Nestor, vol. 1 (1963), p. 258. Treated accordingly in the word-list by Korol'ovŠevoroškin, loc. cit., p. 538.
treated here, but it is to be expected. I cannot agree with Ševoroškin when he repeatedly ${ }^{55}$ maintains that Lyc. $\chi$ and $q$ are the direct descendants of two different "Nostratic" entities, $\chi$ being the continuation of a laryngeal, $q$ of a uvular stop. His reference ${ }^{56}$ to Illič-Svityč, Ėtimologija 1965 (published 1967) p. 322, is of little avail, seeing that very few of the examples presenting uvulars furnished by the Russian-Nostratic (!) glossary ibid. p. 330-373 occur in IE at all, and not a single one of them has a sure correspondence in Lycian (except perhaps for Nostr. *qals 'low", IE *Hel-, Hitt. halija- "kneel", adduced by Ševoroškin ${ }^{57}$ to justify the translation of the obscure words qliju 44 d 59 and qiqlęniredi 44 d 69 as "den qlija (des Grabmals)" and "durch Niederknieung".

Finally, one may ask whether or not the laryngeal ${ }^{*} H^{w}$ which has been used in several of our above calculations is identical with the laryngeal labelled $* H_{3}$ by almost common consent. This question cannot, of course, be answered with greater certainty than there prevails in our theories about $* H_{3}$ itself. If $* H_{3}$ yields Gr. o- as a prothetic vowel, we observe in ${ }_{0} \varrho v \bar{v} \mu \iota$, ${ }^{\circ} \lambda \lambda \lambda \bar{v} \mu \iota$, ${ }^{\circ} \mu \nu \bar{v} \mu \iota$ a treatment differing very significantly from that of the rounded laryngeal of $\dot{\alpha}(F) \dot{\alpha} \sigma \varkappa \varepsilon \iota$ and ${ }^{*} \dot{\alpha} F \alpha \lambda v i \bar{\alpha}$. From the comparison of ${ }_{0} \varrho v \bar{v} \mu \iota$ and Hitt. arnuzzi "brings, leads" we find this laryngeal to be one of the kind that vanishes in Hittite. Another important phonological difference is observable: in ó $\lambda \lambda \bar{v} \mu \iota$ from ${ }_{\partial 3} \ln$ - the laryngeal $\mid H_{3} /$ has been vocalized, whereas $* \dot{\alpha} F \alpha \lambda \nu i \bar{\alpha}$ from $* H^{w}!n-$ has vocalized the $|l|$ in what is otherwise the same sequence of phonemes. In other words, the ${ }^{*} H^{w}$ of $* \dot{\alpha} \mathcal{F} \alpha \lambda \nu i \bar{\alpha}$ is of a more consonantal nature than $|l|$, while the ${ }^{*} / H_{3} /$ of ${ }^{\prime} \lambda \lambda \bar{v} \mu \iota$ is less consonantal, i.e. more easily vocalized, than the sonant |l|. Both the Hitt. loss and the relatively poor consonantal character point to a voiced spirant $\left[\gamma^{w}\right]$ (for ${ }^{*} H_{3}>$ Gr. o-, Hitt. Ø-) as against the voiceless $\left[x^{w}\right]$ (for ${ }^{*} H^{w}>$ Gr. $\dot{\alpha} F_{-}$, Hitt. $h-$ ).

These conclusions may be harmonized quite artlessly with the six-laryngeal system of Lindeman, his $* H_{3}$ being phonetically a voiced spirant $\left[\gamma^{w}\right]$ (gr. o-, Hitt. Ø) matched by the voiceless
${ }^{55}$ Orbis 17, p. 468 ; Kadmos 7 (1968), p. 168; Vestnik drevnej istorii 1969, No. 6, p. 150. His article "K rekonstrukcii fonologičeskich sistem" in Fonologičeskij sbornik (Donec 1968) has unfortunately not been accessible to me.
${ }^{56}$ Orbis 17, p. 468.
${ }^{57}$ Ibid., p. 489 f.
${ }^{*} H_{3}\left[x^{w}\right]$ (Gr. $\dot{\alpha} F_{-}$, Hitt. $h-,-h h-$, Lyc. $\left.q \sim^{\mu}\right)$. The fact that monophonemic ${ }^{*} H^{w}$ - develops in Greek exactly like the diphonemic ${ }^{*} H w$ - (the latter in Gr. $\ddot{\alpha}(F) \eta \sigma \iota$ above), is in full accordance with the overall tendencies of Greek historical phonology where, e.g., ${ }^{*} k^{w}$ and ${ }^{*} k w$ in the vast majority of cases exhibit the same development.

## Addenda

To p. 5. Other alleged one-vowel languages are Kabardian (N.W. Caucasus) and Wishram (Chinookan group of N. America), see W. Sidney Allen, "On One-Vowel Systems", Lingua 13 (1961), p. 111-124, and on Kabardian especially the monograph by A. H. Kuipers, Phoneme and Morpheme in Kabardian (The Hague 1960) and the same's paper "Unique Types and Typological Universals"' in Pratidānam (Fs. F. B. J. Kuiper, The Hague 1968), p. 68-88, the latter containing a highly spirited discussion of typological arguments and pseudo-arguments against the acceptability of such minimal sub-systems.

To p. 9. During a recent stay in Vienna, J. Schindler kindly drew my attention to the lengthy study by Heinz-Jürgen Pinnow, "Sanskrit - eine Sprache ohne Vokalphoneme? (Vorschläge zur Erstellung des Phonemsystems des Altindischen)", Folia Linguistica 3 (1969), p. 255-306, where some of my views have been anticipated. I must say, however, that I find this author's phone-
 as // • pn• $\mathrm{v} t \dot{y} / /$ (both p. 298) inferior to my own as regards both economy (why distinguish $y$ and $\dot{y}$ if they never contrast?) and its ability to map the morphophonemics of the language (// y y y $\dot{\mathrm{v}} \dot{\mathrm{s}}$ /| for îyúr hardly accounts for the morphology as well as |/ Xy-Xy-vS // does). The main point, however, whether one chooses to write || a || and to speak of one vowel or prefers || • || and sees no vowel altogether is only a matter of taste, but to accept Silbengipfel as phonemic without realizing that the existence of one element which is always syllabic means the existence of one vowel is, at best, bad taste. My own analysis is partly congruent with that of V. V. Ivanov \& V. N. Toporov, Sanskrit (English edition Moscow 1968 [Russian edition 1960]), p. 46. The authors, however, only claim the single vowel / a / "for the early Indo-

Aryan period" and not for Class. Sanskrit as I would and as Pinnow reads it (p. 259). The morphophonemic analysis containing one "laryngeal" written X is, it seems, entirely my own and, for the reasons stated in the text, preferable to other attempts.

To p. 25. The Pre-IE paradigm of the word for "foot", preceding IE *póds, gen. *péds would be *p $\dot{E} d E s$, *p $\bar{E} d E ́ s$, the two cases being distinguished by accent only. The symbols $\bar{E}$ and $E$ stand for the alternations $\dot{\bar{e}} \sim e$ and $\dot{e} \sim \emptyset$ respectively, the phonetic development of ${ }^{*} p \bar{E} d E ́ s$ to *péds being parallel to that of ${ }^{*} H_{1} \bar{E} d E ́ n t$ to * $H_{1}$ édñt ("acrostatic" noun and verb in the Erlangen terminology, cf. Eichner, MSS 31 (1972), p. 91). Likewise *dó(m) *déms is from *d $\dot{E} m E s * d \bar{E} m E s$. The old ergatives were, then, merely $* p \bar{E} d E s$ and $* d \bar{E} m E s$ with unspecified accent, different syntactic patterns causing the later fission into nom. ${ }^{*} p \dot{E} d E s$ and $* d \bar{E} m E s$ (with "unmarked" accent) and gen. *p $\bar{E} d \hat{E} s, * d \bar{E} m E ́ s$ (accent attracted by enclitic second member of combinations like $\delta \varepsilon \sigma \pi o ́ \tau \eta \varsigma$ ). (For the IE paradigms underlying my Pre-IE constructs I am indebted to the highly inspiring teaching of my distinguished friend and colleague Jochem Schindler and to countless discussions with the same during the fall term of 1973. Schindler's views on this inflexional type are set forth in his paper "L’apophonie des noms-racines indo-européens", BSL 67 (1972), p. 31-38).

To p. 45. W. Meid, Die Romanze von Froech und Findabair, Táin Bó Fróich (Innsbruck 1970), p. 163, favours the equation of OIr. - $f$ - with Lat. - $b$-, but seems to forget that the underlying segment was ${ }^{*}-b h w-$ and not just $*-b h-$

To p. 63. Lyc. tadi, $3^{\text {rd }}$ pl. tati is perhaps rather $<$ *táati *táanti, a mi-transfer of Hitt. dāi tijanzi (*dhé $\left.H_{1}-o i * d h e ́ H_{1} o n t i\right)$. As shown by aite "they made" of the trilingual inscription recently discovered at Xanthos, a sequence -ájanti would undergo syncope and denasalization of the resulting $i$-diphthong (-aint $i>$ -aitti>-aiti) and so tadi tąti probably never contained any -j-. Likewise qqti, $3^{\text {rd }}$ pl. qqũti is probably the thematicized variant based on the stem of Hitt. hannanzi, i.e. ${ }^{*} H^{w}$ éneti ${ }^{*} H^{w}$ énonti with syncope of unstressed vowels.

The trilingual stele of Xanthos whose text has now been published in the Académie des Inscriptions \& Belles-lettres, Comptes rendus des séances de l'année 1974, p. 82-93 ("Le texte grec" by
H. Metzger), p. 115-125 ("Le texte lycien'’ by E. Laroche), and p. 132-149 ("Le texte araméen" by A. Dupont-Sommer), contains valuable though hardly conclusive evidence for the phonetic value of the letter ${ }^{\mu}$ here advocated. The four occurrences are all variants of the personal name $A r^{\mu \mu}$ azuma (line 8), Ar ${ }^{\mu \mu}$ azumahi (18), Er ${ }^{\mu \mu}$ azuma ( 27 f ), se-R $R^{\mu \mu}$ azumaha ( 24 f ), rendered by ' $A \varrho \varkappa \varepsilon \sigma \iota \mu \alpha$ in the Greek version and unfortunately damaged beyond the initial $R$ [ in its two occurrences in the Aramaic text. Now Greek $\langle\varkappa\rangle$ is the transcription of Lyc. $k(E \varkappa \alpha \tau o \mu \nu \omega=$ Katamlah, ibid. line 2), $\chi, g[\gamma](44 \mathrm{c} 31 K \alpha[\varrho] \iota \alpha \alpha=$ Xeriga $)$, and $q$ $\left[\mathrm{x}^{w}\right]$ (Qñturahahñ tril. $10=$ Kov 0 @ $\alpha \sigma \iota \circ$ ), so why not of $\left[\gamma^{\mathrm{w}}\right]$ as well? However, the Greek rendering may well be influenced
 Jewish inscr. of Syria, CIG 9899), which makes the example inconclusive one way or the other, as observed by my friend and colleague Martin Peters of Vienna.

## Typographical Note

The Lycian letter resembling an archaic M with five hastae is here for technical reasons printed ${ }^{\mu}$. This is no recommendation for future transcription. If my phonetic interpretation is correct one would suggest to write $\gamma^{\mathrm{w}}$ or $\gamma^{\circ}$, the best procedure being perhaps for the time being Laroche's Ar?? azuma.

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## Summary

The Amphiaraos Painter, the Tityos Painter, the Painter of Bibl. Nat. 178, and the Silen Painter-all followers of the Paris Painter-are individually discussed with respect to their style, selection of ornaments and figure scenes, their vase shapes, and date. The discussion of the Pontic workshop's relations to Greek art and other Etruscan monuments and their place of origin is a continuation of the last section of my "The Paris Painter" (Det Kongelige Danske Videnskabernes Selskab Historisk-filosofiske Meddelelser 47,2). Also included is an annotated catalogue of Pontic vases not attributed to any of the above-mentioned painters and a list of additions to the works of the Paris Painter.

## Preface

My thanks are especially due to The Royal Danish Academy of Sciences and Letters for their undertaking of the publication of my research on the Pontic vase-painters.

I should also like to thank The Danish Research Council for the Humanities and the University of Aarhus for financial support that made my studies abroad possible.

In addition, I am indebted to the many museum authorities who have kindly permitted me to publish the photographs used in the present paper and who assisted me during my visits to the various museums. I am particularly grateful to Soprintendente M. Moretti who generously has allowed me to publish the vases from tomb 177 in Vulci, now in the Villa Giulia.

Finally I want to thank Professor dr. phil. P. J. Riis and Miss Anja Drukker for the trouble they have taken in reading the manuscript and for their many valuable suggestions. To Miss Annette Rathje, Poul Pedersen who made the drawings, and Mrs. Lee Davis who undertook the laborious task of revising my English, I owe a special debt.

## List of Abbreviations

Albizzati - C. Albizzati, Vasi antichi dipinti del Vaticano.
Andrén Arch.Arch. Ter. - A. Andrén, Architectural Terracottas from Etrusco-Italic Temples (Skrifter utgivna av Svenska Institutet i Rom VI), 1940.
Arias-Hirmer - P. E. Arias - Max Hirmer, Tausend Jahre griechische Vasenkunst, 1960.
Baur - Paul V. C. Baur, Centaurs in Ancient Art, 1912.
Beazley EVP - J. D. Beazley, Etruscan Vase-Painting, 1947.
Brown - W. Llewellyn Brown, The Etruscan Lion, 1960.
Brunn-Körte - H. Brunn - G. Körte, I rilievi delle urne etrusche IIII, 1870-1916.
Dohrn - T. Dohrn, Die schwarzfigurigen etruskischen Vasen aus der zweiten Hälfte des sechsten Jahrhunderts, 1937.
Ducati - P. Ducati, Pontische Vasen, 1932.
Endt - J. Endt, Beiträge zur ionischen Vasenmalerei, 1899.
FR - A. Furtwängler - K. Reichhold, Griechische Vasenmalerei IIII, 1904-1932.
Gerhard - E. Gerhard, Etruskische Spiegel I-V, 1840-97.
Giglioli - G. Q. Giglioli, L'arte etrusca, 1935.
Graef - B. Graef, Die antiken Vasen von der Akropolis zu Athen, 1909-33.
Gsell - S. Gsell, Fouilles dans la Nécropole de Vulci, 1891.
Hampe-Simon - R. Hampe - E. Simon, Griechische Sagen in der frühen etruskischen Kunst, 1964.
Hemelrijk - J. M. Hemelrijk, De Caeretaanse Hydriae, 1956.
Jacobsthal, Ornamente - P. Jacobsthal, Ornamente griechischer Vasen, 1927.
Langlotz - E. Langlotz, Griechische Vasen in Würzburg, 1932.
Latte - K. Latte, Römische Religionsgeschichte, 1960.
Mingazzini - P. Mingazzini, Vasi della Collezione Castellani I, 1930.
Pottier - E. Pottier, Vases antiques du Louvre, 1897.
R. G. - J. D. Beazley - F. Magi, La raccolta Benedetto Guglielmi nel Museo Gregoriano Etrusco, 1939.
Roncalli - F. Roncalli, Le lastre dipinte da Cerveteri, 1965.
Roscher - W. H. Roscher, Lexikon der griechischen und römischen Mythologie.
Sieveking-Hackl - J. Sieveking - R. Hackl, Die königliche Vasensammlung zu München, 1912.
Thiersch - H. Thiersch, "Tyrrhenische" Amphoren, 1899.
The titles of periodicals are abbreviated according to the list of abbreviations in Archäologische Bibliographie des deutschen archäologischen Instituts.

## The Amphiaraos Painter

In my paper on the Paris Painter ${ }^{1}$ I tried to show that he was the founder of the Pontic workshop, starting around or shortly after the middle of the 6th century B.C. ${ }^{2}$.

However, he soon took on apprentices who imitated and developed his ideas. The first of these followers may have been the Amphiaraos Painter ${ }^{3}$. His name-piece is an amphora in Munich, no. 838 (cat. no. 1), which on one side of the shoulder has a representation of a scene that seems to depict the departure of Amphiaraos (pl. 2). A closer study of the many animals, especially the horses, reveals how much they differ from those of the Paris Painter. The very consistent rendering of details that characterized the work of the Paris Painter is lacking. Nonetheless, there are certain features which may be taken as characteristic, such as the incision all the way round the shoulder blade (fig. 1) ${ }^{4}$, and a weakened version of the Paris Painter's foreleg incision (fig. 1) ${ }^{5}$. Two or three long, curved incisions mark the musculature of the hindquarters and an incision like a four-stroked sigma marks the heel on the hindlegs (fig. 2). Frequently the legs of one animal have different colours, in a wholly unnaturalistic way, something never seen in the Paris Painter's works. The faces of the panthers have a characteristic form (fig. 3 ). The bellies of the animals can be red or white, whereas in the Paris Painter's animals they are always white if differentiated from the rest of the body. Some of the animals (several of the horses and the sitting griffin) have a row of short strokes at the top of their hindquarters.

Many of these details recur on the chalice Munich 938 (cat. no. 2), such as the incisions on the shoulder blade ${ }^{6}$ and the foreleg, the rows of short strokes on the backs of the goat, sphinx, and panther, plus the facial drawing of the panther. However, the rendering of the muscles on the hindquarters is more in the style of the Paris Painter, with a red stripe between two incisions; also the animals do not have differently coloured legs.


Closely related to this chalice are two chalices in Orvieto (cat. nos. 3 and 4) and three sherds of a globular cup (?) in Bonn (cat. no. 5). A kyathos in Villa Giulia (cat. no. 6) with an animal frieze containing birds, horses, chimaera, sphinx, and panther must also be a work by him. The panther is drawn with the characteristic facial features, and the horses have closed shoulder blades and foreleg incisions similar to those shown on fig. 1 .

An oinochoe in the British Museum, B55 (cat. no. 7), has an animal frieze on the shoulder consisting of sphinx, panther, and lion, all very similar to the animals on Munich 838 (cat. no. 1), but the drawing is coarser and more sketchy. This oinochoe resembles one in Karlsruhe (cat. no. 8), on which the animal frieze on the shoulder consists of the same animals and the plants are very similar; the two palmettes on one of the plants recur in the belly frieze of British Museum B55 (cat. no. 7). However, the incisions on the Karlsruhe oinochoe (cat. no. 8) are so extremely clumsy that one is inclined to consider it a work by an apprentice.

An oinochoe in the Museo Nazionale in Civitavecchia (cat. no. 9) must also be a work by this painter. The facial drawing

of the panthers is as shown in fig. 3. The attitude of the grazing deer is similar to that of the goat on Munich 938 (cat. no. 2). Many of the animals have a row of short strokes at the top of their backs. The heads of the lions suggest those on Munich 838 (cat. no. 1), 938 (cat. no. 2) and British Museum B55 (cat. no. 7). The filling ornaments under the animals look like simplified versions of the volute ornaments seen in the centauromachy on the shoulder of Munich 838 (cat. no. 1). The heads of the horses in the shoulder frieze recall those on Munich 838 (cat. no. 1).

Very similar to this oinochoe is an oinochoe in Villa Giulia (cat. no. 10). The lions are related to that on Munich (cat. no. 1), although they have more incisions to indicate the ribs and a curved line to delimit the hindquarters-a trait always shown by the Paris Painter, but not often by the Amphiaraos Painter. The horses too suggest those on Munich 838 (cat. no. 1), although they are more carelessly drawn and with fewer details. Their raised forelegs are similar to the hindmost foreleg of the hippocamp on Munich 838 (cat. no. 1). The bull frieze on the shoulder of this oinochoe is a good illustration of the Amphiaraos Painter's inconsistency in the rendering of details. One of the bulls has no indication of the shoulder blade, two have a partly closed one, while the last has a closed shoulder blade-the trait most often

seen on this painter's animals. Only the last bull has an incision on the foreleg. The belly of this bull is left in the colour of the clay, while on the other three it is black like the rest of the body.

A lydion in Munich, no. 1003 (cat. no. 11), must also be included among this painter's works. The head of the panther is very typical, while the head and hair of the siren suggest, for instance, the heads of the sphinxes on the Civitavecchia oinochoe (cat. no. 9).

Also related to Munich 838 (cat. no. 1) is an amphora in the Vatican, Albizzati no. 230 (cat. no. 12), in terms of the use of dot rosettes and the volute ornaments under the sirens on the neck. The form of the birds and the sirens does not have exact parallels in other works of the Amphiaraos Painter, but the face and the hair (especially the fringe) of the siren in the belly frieze have a certain resemblance to the sirens and the seated sphinx on Munich 838 (cat. no. 1) ${ }^{7}$.

Another work probably by this painter is a kylix in Munich, no. 992 (cat. no. 13). The bird on the tondo resembles those on the Civitavecchia oinochoe (cat. no. 9), especially in the drawing of the upper part of the leg and of the feet. The palmettes suggest the palmettes on Munich 838 (cat. no. 1).

Further, a kylix in Munich, no. 530 (cat. no. 14), could also be a work by him. The griffin in the tondo has a W-shaped knee-joint on the hind legs and two short strokes on the rearmost hind leg just where it appears behind the other leg-a detail also seen, for instance, on the deer on the Civitavecchia oinochoe (cat. no. 9) and on one of the bulls on the Villa Giulia oinochoe (cat. no. 10). A counterpart to this kylix, decorated with a sphinx in the tondo, is in the Museo Nazionale in Civitavecchia (cat. no. 16).

A cup in Basle (cat. no. 17) is decorated in a style which is a very clumsy imitation of the Paris Painter's, but also showing traits characteristic of the Amphiaraos Painter. Probably it is one of his very first works, where he still depends heavily on the Paris Painter's style.

The Amphiaraos Painter has a large repertory of animals. His favourites are birds, lions, sphinxes, panthers and griffins. More seldom may be seen bulls, hippocamps, tritons, deer and goats, and once or twice chimaera and a griffin-bird.

As in his rendering of animals, the Amphiaraos Painter is
also highly inconsistent in his rendering of human beings. Even the proportions of the figures vary considerably on one and the same vase. For illustration a comparison may be made between the two slender warriors in the Amphiaraos scene on Munich 838 (cat. no. 1) and the two small warriors in the upper belly frieze. Examples of his varying representation of ears are shown in fig. 4. The eye is practically always incised and almond-shaped, and sometimes the iris is marked by an incised circle ${ }^{8}$. The facial profile is nearly always incised, a trait seldom seen in the Paris Painter's works. It is usually carried out by three strokes, one indicating the forehead and nose, another the line from nose to mouth and the mouth, and the third the chin. Examples of his rendering of the knee are seen in fig. 5 .

An amphora now in the Antikenmuseum in Basle (cat. no. 15) has been attributed by Margot Schmidt ${ }^{9}$ to the Tityos Painter. This attribution is certainly erroneous, as also maintained by Dohrn ${ }^{10}$; but the amphora could, however, be a work by the Amphiaraos Painter ${ }^{11}$. The departure of Amphiaraos is represented in very much the same way as on Munich 838 (cat. no. 1). The fringed chiton of the charioteer, which Dohrn considered one of the many suspicious features in the style of this vase, is also seen on the horsemen on the Villa Giulia oinochoe (cat. no. 10). The ornament frieze above the ring of rays is seen on the kyathos in the Villa Giulia (cat. no. 6). The white dots for eyes, which are probably one of the features that led Margot Schmidt to consider the vase a work by the Tityos Painter, are also seen on the two warriors on the A-side of the shoulder of Munich 838 (cat. no. 1) (cf. note 8). There is the same inconsistency in style as seen on several works by the Amphiaraos Painter.

The Amphiaraos Painter is a great lover of plants in his compositions. And yet in this feature, too, there are inconsistencies on the same vase. On Munich 838 (cat. no. 1), the centauromachy takes place in a thick setting of plants, while in the Amphiaraos scene there are no plants. One might argue that the plant setting was used because the painter wished to indicate the centauromachy taking place in the wild woods. But the painter has also placed a large plant between the two standing, arguing men in the figure scene on the shoulder of the Civitavecchia oinochoe (cat. no. 9).

The volute-like plants between the legs of Heracles and
the two centaurs on Munich 838 (cat. no. 1) recur in a modified version under the sirens on the shoulder of Vatican 230 (cat. no. 12), and in very simplified versions, where they have been altered to become filling ornaments, on the Karlsruhe and Civitavecchia oinochoai (cat. nos. 8 and 9). Probably the filling ornaments under the animals on the Villa Giulia oinochoe (cat. no. 10) derive from those on the Civitavecchia oinochoe (cat. no. 9).

The plants behind the warriors in the upper belly frieze on Munich 838 (cat. no. 1) have a parallel in the plant-like delimitation of the animal frieze on the shoulder of the Karlsruhe oinochoe (cat. no. 8).

On the oinochoai in Civitavecchia and Villa Giulia (cat. nos. 9 and 10), the painter favours plants with lanceolate leaves with knobs along the edge.

A great variety of ornamental friezes are seen on the works of the Amphiaraos Painter. Like the Paris Painter, he is especially fond of motifs incorporating the lotus and palmettes. Friezes of alternating lotus and palmettes are seen on Munich 838 (cat. no. 1), Karlsruhe (cat. no. 8), Vatican 230 (cat. no. 12), Munich 992 (cat. no. 13), and the Basle amphora (cat. no. 15). Munich 838 (cat. no. 1) has a lotus with a square receptacle and central petals which look like a palmette. On Karlsruhe (cat. no. 8), Munich 992 and 1003 (cat. nos. 13 and 11) the lotus is like the Paris Painter's type 1. On the Basle amphora (cat. no. 15), the central petal is detached from the receptacle and flanked by two small petals of the same kind. On Vatican 230 (cat. no. 12) and Basle Zu 388 (cat. no. 17), the lotus has a rounded receptacle as in the Paris Painter's type 3. On the last vase (cat. no. 17) the Amphiaraos Painter has borrowed the incised triangle in each lotus from the Paris Painter.

The palmettes are also of different types. On Munich 838 (cat. no. 1) and 992 (cat. no. 13) the leaves are placed in tiers. On Karlsruhe (cat. no. 8) and British Museum B55 (cat. no. 7) the palmette is solid with an incision following the contour, probably to indicate the receptacle. On the neck of Vatican 230 (cat. no. 12) and the Basle amphora (cat. no. 15) the palmettes are similarly solid, with incisions to indicate the individual leaves and the receptacle, while in the upper belly frieze of

Vatican 230 (cat. no. 12), the palmettes are of the Paris Painter's type 3 .

Other ornaments used only very occasionally by the Amphiaraos Painter are: pseudomeander ${ }^{12}$, meander where every second section is filled with a cross consisting of five small squares ${ }^{13}$, a frieze of alternating standing and pendant squares with a dot in the centre ${ }^{14}$, net pattern ${ }^{15}$, band of stylized flowers (? ${ }^{16}$, undulating band ${ }^{17}$, a very simplified tongue pattern ${ }^{18}$, battlement with a cross in each section ${ }^{19}$, band of pomegranates ${ }^{20}$, and the large rosette on the bottom of the Basle cup (cat. no. 17).

In studying the style of the above-mentioned vases, it is evident that although there is a basic likeness in conception and in some of the details, there is a remarkable difference, for instance, between the fine, precisely drawn animals on the Orvieto cups (cat. nos. 3 and 4) and Munich 938 (cat. no. 2) on the one hand, and the animals on British Museum B55 and the Villa Giulia oinochoe (cat. nos. 7 and 10) on the other. This difference in quality, which also applies to the rendering of human beings, led Dohrn to the theory of two different painters. Nonetheless, this assumption is clearly erroneous. A closer study of Munich 838 (cat. no. 1) reveals that this difference in quality can exist on one and the same vase, as seen when contrasting the chariot frieze on the belly and the centauromachy on the shoulder.

## The Structure of the Decoration

So few vases survive of a certain shape by the Amphiaraos Painter that it is impossible to decide whether the composition of their decoration was as established as that of the Paris Painter's amphorae ${ }^{21}$. In the main, he seems to have followed the rules of decoration worked out by the Paris Painter. His amphorae ${ }^{22}$ all have a black foot, a ring of rays around the lower part of the body ${ }^{23}$, and black handles. On Munich 838 (cat. no. 1) and Basle Zü 209 (cat. no. 15), the vertical black panels under the handles have been left out. All three amphorae have more friezes on the belly than the two normally seen on the Paris Painter's works. While the Paris Painter usually ${ }^{24}$ places a figure frieze on the shoulder and animal and ornamental friezes on the belly, the Amphiaraos Painter places an extra figure frieze on
the belly of both Munich 838 (cat. no. 1) and Basle Zü 209 (cat. no. 15).

Two different forms of decoration are seen on his oinochoai. Group 1, comprising Karlsruhe B2588 (cat. no. 8) and British Museum B55 (cat. no. 7), has a black foot, neck, mouth, and handle. On the shoulder there is an animal frieze separated from the handle by two vertical lines on both sides. On the top of the belly is a black frieze framed by two narrow bands of pseudomeanders ${ }^{25}$. There follows, on Karlsruhe B2588 (cat. no. 8), a double band of lotus and palmettes, and on British Museum B55 (cat. no. 7), a frieze of alternating pendant and standing palmettes. On both oinochoai this floral frieze is separated from the ring of rays by a narrow band of pseudomeander.

Group 2, which comprises the oinochoai in the Villa Giulia and Civitavecchia (cat. nos. 9 and 10), has an animal frieze on the neck, a bird frieze above the ring of rays, and an animal frieze on the upper part of the belly ${ }^{26}$. On the shoulder of the Civitavecchia oinochoe (cat. no. 9) is a figure frieze, on the Villa Giulia oinochoe (cat. no. 10) an animal frieze. In group 2 the black frieze characterizing the bellies of group 1 is reduced to a narrow band ${ }^{27}$.

All the three chalices ${ }^{28}$ have a black foot, stem, and lower part of the bowl, while the upper part is decorated with an animal frieze. The same applies to the kyathos in the Villa Giulia (cat. no. 6), the offset lip of which is decorated with a meander. The handle is black except for a panel on the inside.

The structure of decoration of the three kylikes (cat. nos. 13, 14 and 16) is in accordance with the usual practice for lip cups ${ }^{29}$.

## Figure Scenes

Real figure scenes are present on Munich 838 (cat. no. 1), Basle Zü 209 (cat. no. 15), and the Civitavecchia oinochoe (cat. no. 9). In addition, the Amphiaraos Painter sometimes places one or more human figures in the animal friezes ${ }^{30}$.

On one side of the shoulders of both Munich 838 (cat. no. 1) and Basle Zü 209 (cat. no. 15), the same subject is evidently depicted. Very probably the scenes should be interpreted as the departure of Amphiaraos ${ }^{31}$, although this is not absolutely cer-
tain as the woman identified as Eriphyle does not hold a necklace ${ }^{31 a}$. The representation of the motif is much the same on the two vases: to the right Eriphyle (on Munich 838 (cat. no. 1) placed above the handle due to lack of space) and Alkmaion look imploringly at Amphiaraos, who is about to mount the chariot and looks back towards his wife and child. The chariot and the horses fill in the centre of the scene, while to the left a man facing the right sits on a folding-stool with a staff in one hand. He is probably a seer predicting the fate of Amphiaraos. On the extreme left warriors are marching along. The scene has a close parallel in the representation of the departure of Amphiaraos on a late Corinthian crater in Berlin F $1655^{32}$. Here again may be seen the imploring Alkmaion, Amphiaraos looking back while mounting the chariot, and the seer (sitting on the ground). Most at variance with the first scene is Eriphyle, who here stands among the household with the necklace in her hand. On the crater are depicted a large number of subordinate characters, as well as the palace of Amphiaraos; on the two Pontic vases only the main characters of the myth are seen. On the chest of Kypselos, Amphiaraos was depicted in the same posture as on the crater, according to Pausanias ${ }^{33}$, and this is also true of a sheet of bronze found in Olympia ${ }^{34}$.

Very similar in its main features is also the Attic representation seen on Acr. $2112^{35}$ by the C Painter and probably inspired by Corinthian prototypes. Other Attic representations, however-as seen on three Tyrrhenian amphorae ${ }^{36}$ and an amphora by the Priam Painter ${ }^{37}$-differ more from those of the Amphiaraos Painter; yet here also are seen the imploring family, Amphiaraos about to mount his chariot, and the seer ${ }^{38}$.

Only on what might be a very abridged Etruscan version of the motif, a bronze relief from a chamber tomb at Castellina in Chianti ${ }^{39}$, is Amphiaraos seen about to draw his sword in the same way as on the two representations by the Amphiaraos Painter. This could mean that both the version on this bronze and the two on the Pontic vases have a common Etruscan prototype, whose source of inspiration was probably a Corinthian representation of the motif.

Hampe's interpretations of the warriors on the B-side of the Basle Amphora (cat. no. 15) as Tydeus and Polyneikes, and
the battle scene on the upper belly frieze as the fight between the Argives and Thebans ${ }^{40}$, are largely hypothetical and seem to me not very likely. More probable, although also far from certain, is the old interpretation of the chariot frieze on the belly of Munich 838 (cat. no. 1) as the funeral games of Pelias ${ }^{41}$. The combination of the departure of Amphiaraos and the funeral of Pelias is seen on the above-mentioned Corinthian crater ${ }^{42}$, on one of the three Tyrrhenian amphorae ${ }^{43}$, and on the chest of Kypselos ${ }^{44}$.

Heracles fighting two centaurs is seen on the B-side of Munich 838 (cat. no. 1). The hero is dressed in the lion's skin and armed with his club. This representation is very similar to that of the Tityos Painter on Bibl. Nat. 173 (cat. no. 25) (cf. p. 25-also for its relations to other Etruscan groups of monuments and to Greek art).

The figure scene on the shoulder of the Civitavecchia oinochoe (cat. no. 9) is very difficult to interpret. I have been unable to find any Greek or Etruscan parallel to it. In the middle of the scene stand two men, to the right an elderly, bearded man and to the left a younger, beardless one. They both wear a chiton, cloak and boots. The young man carries a sceptre (?) in his left hand while he raises the right in a sort of greeting. The old man also raises his right arm while the left one is bent, his hand clenched on his breast. On either side of this group a man wearing similar dress and a petasos sits on a folding-stool. The man to the right has a short beard and carries a sceptre (?) in one hand while he raises the other in the same gesture as the standing men. The seated man to the left, who is beardless, carries a lituus in the left hand and raises the right. The four seem to be engaged in some kind of discussion. Behind each of the seated men is a dog and a chariot being mounted by a charioteer. The charioteers are dressed in short chitons and the one to the right wears a petasos (the head of the left charioteer is missing).

It is notable that the two men to the left are characterized as young and the two to the right as older. On an amphora by the Paris Painter, Orvieto inv. no. $2665^{45}$, is represented, on the one side, a procession of young men who seem to meet a similar procession of older men coming from the other side of the vase. Every second young man wears a petasos; and they
are led by a bearded man wearing a petasos and carrying a kerykeion. On the Civitavecchia oinochoe (cat. no. 9) the petasoi of the two seated men are adorned with an incised circle, from which radiate three small, straight incisions, and a strap at the top. On a cup in Hamburg ${ }^{46}$, a very similar incision is seen on the petasos of Hermes, but the strap has been left out. The petasos of the charioteer does not have this adornment, and it is possible that it characterizes the two seated men as being more important ${ }^{47}$. A discussion between men, some of whom are sitting on foldingstools and others standing, is seen, for instance, on a cippus from Chiusi in Palermo ${ }^{48}$ where two rows of men are sitting on folding-stools opposite each other. As on the oinochoe, they are equipped with litui and sceptres and gesturing in a lively manner. Three men, who also seem to take part in the discussion, stand behind them. Similar representations are seen on another cippus in Palermo ${ }^{49}$ and on a cippus in Munich ${ }^{50}$, where two men only sit opposite each other, one of them carrying a sceptre, the other a lituus ${ }^{51}$.

This type of scene, characterized by lively gesticulating men of different ages sitting on folding-stools and equipped with sceptres or litui (and sometimes with men standing behind them also participating in the discussion), is thus well known in Etruscan $\operatorname{art}^{52}$. Yet, among the representations enumerated, none is really close to the representation on the oinochoe. They all lack the chariots flanking the seated men, and on none of them are two standing men seen between the men on the folding-stools. Moreover, the content of the representation on the oinochoe hardly has any connection with that of the grave cippi ${ }^{53}$.

If the motif is interpreted on the basis of Greek premises, it could rather represent a gathering of Achaean heroes from the Iliad. The closest parallel seems to be a representation on a skyphos by the Brygos Painter in Vienna ${ }^{54}$, which shows the ransoming of Hector on the other side.

## Dating

If, as suggested on p. 8, the cup in Basle (cat. no. 17) is considered to be a work by the Amphiaraos Painter, it is certainly the oldest of his extant works. The two oinochoai in Karls-
ruhe and the British Museum (cat. nos. 7 and 8) are probably also among his earliest works, considering their old-fashioned shape and very simple animal frieze.

On the other hand, the oinochoai in Civitavecchia and Villa Giulia (cat. nos. 9 and 10), which are closely related, must be reckoned among his latest works. On the Civitavecchia oinochoe (cat. no. 9) he makes ample use of folds in the garment: for example, a sort of zig-zag folds in the loose part of the cloaks. Munich 838 (cat. no. 1) is probably somewhat older than the two last oinochoai, as folds are hardly indicated. Yet on the chiton of Amphiaraos are seen transverse folds very similar to those on the chiton of one of the charioteers on the Civitavecchia oinochoe (cat. no. 9); further, on the amphora in Basle (cat. no. 15), which is likely to have been made at the same time as Munich 838 (cat. no. 1), the charioteer of Amphiaraos has the same fringed chiton as the horsemen on the Villa Giulia oinochoe (cat. no. 10). So probably only a short time elapsed between the production of the two amphorae (cat. nos. 1 and 15) and the two oinochoai (cat. nos. 9 and 10).

The kyathos in Villa Giulia (cat. no. 6) has the same band of meander as the Basle amphora (cat. no. 15) and is likely to have been made about the same time. A net pattern on the rim of the Vatican amphora (cat. no. 12) is probably copied from the later work of the Paris Painter ${ }^{55}$.

Those items of the Amphiaraos Painter's production which Dohrn attributed to his Triton Painter ${ }^{56}$ (cat. nos. 3-5) and the cup Munich 938 (cat. no. 2) have their closest parallel in Munich 838 (cat. no. 1). They are all characterized by use of tritons and hippocamps in the animal friezes.

The rendering of the folds on the Civitavecchia oinochoe (cat. no. 9) indicates that it is probably contemporary with the latest work of the Paris Painter. It is also very similar to the rendering of folds on many of the Caeretan hydriai ${ }^{57}$. The Basle amphora (cat. no. 15), with the two women standing beside the warriors on the $B$-side, can hardly have been made before the amphora Bibl. Nat. $172^{58}$ by the Paris Painter, where a similarly rendered woman stands behind one of the warriors on the Bside. The kyathos and oinochoe in Villa Giulia (cat. nos. 6 and 10) were found in tomb 177 in the Necropoli dell'Osteria to-
gether with an Attic Little Master cup, a very late oinochoe by the Paris Painter (cf. p. 81), and two late plates by the Tityos Painter (cf. p. 31).

Everything considered, the career of the Amphiaraos Painter seems to have come to an end around 520 B. C., or shortly afterwards. It is more difficult to determine at what time he started. My guess is not much before $530 \mathrm{~B} . \mathrm{C}$.

## The Tityos Painter

Dohrn's Tityos Painter ${ }^{59}$ presents several problems. However, there is little doubt that the following nucleus of vases may be attributed to one specific painter: Florence 3778 and 3779 (cat. nos. 18-19), Munich 836 (cat. no. 20), 937 (cat. no. 21), 990 (cat. no. 22), 976 (cat. no. 23), Münzen und Medaillen XVIII, 140 (cat. no. 24), Bibl. Nat. 173 (cat. no. 25), Ars Antiqua I, 129 (cat. no. 26), a plate in the Villa Giulia (cat. no. 27), Gallerie Vollmoeller I, no. 100 (cat. no. 28), Greifswald no. 383 (cat. no. 29), and Sotheby 4-5-1970 no. 110 (cat. no. 29a).

As in the case of the Paris Painter, the best starting-point for an analysis of our present painter's style is the animals. Figure 6 shows his characteristic incisions on the front legs with two hooks marking the transition from body to leg, and a curved line further down the leg ${ }^{61}$. The shoulder is rendered in practically the same way as by the Paris Painter, and to its termination on the back also corresponds a similar arch on the hindquarters. However, the Tityos Painter very often places a shorter, parallel incision behind the shoulder line, as seen on fig. 6. In particular, the felines often have very sturdy forelegs. On the hindquarters are two curved incisions, and on the top of one or both hind legs one short curved incision ${ }^{62}$. On top of the hindquarters is sometimes seen a row of short strokes ${ }^{63}$. On most of the animals the belly is indicated by a plain stroke of white not delimited by incision. An S-shaped line is incised in the ears ${ }^{64}$. The eye is often just a white or red blob without incisions. The characteristic faces of his panthers are seen in fig. 7.

Although these details are seen on all the vases mentioned above, a comparison between the Florence oinochoai (cat. nos. 18-19) and Bibl. Nat. 173 (cat. no. 25) reveals a significant

difference in the general appearance of the animals. On Bibl. Nat. 173 (cat. no. 25) the animals are short-legged and heavy and the lines are very hastily, one might say sloppily, executed, while on the Florence oinochoai (cat. nos. 18-19), the animals have the same neat lines and proportions as the Paris Painter's. An amphora in Reading (cat. no. 30) shows the same careless style as Bibl. Nat. 173 (cat. no. 25), and many of the details of the animals are the same as seen on the vases mentioned above ${ }^{65}$, so there can be no doubt that this vase is also a work by the Tityos Painter ${ }^{66}$.

The animal frieze on an oinochoe in Stockholm (cat. no. 41) shows details reminiscent of the Tityos Painter's animals, and the oinochoe is probably best considered a very careless work by this painter.

Certain standard features can also be detected in the human beings and objects on these vases. The two centaurs on Munich 836 (cat. no. 20) and the one fighting against Heracles on Bibl. Nat. 173 (cat. no. 25) all have the same forward bristling fringe of hair ${ }^{67}$. The rendering of anatomical details varies more in the human beings than in the animals. Among the more consistent features are two curved incisions on the upper arm and a zigzag at the elbow. In contrast with the Paris Painter, the Tityos Painter normally renders the toes on the hindmost foot. His figures stride along in violent action, very often in "Knielauf". As with the animals, but not as frequently, the eyes are sometimes just white blobs with a black pupil. One or two curved incisions are often seen on the thighs. The different ways in


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which he renders the knee are shown in fig. 8. His drawing of the ear varies, but it is always a variation of the representation seen in fig. 9, unless it is just marked by a curve in the hairline.

Many of these characteristic details can be found in the tondo figure on a plate in the Ny Carlsberg Glyptotek (cat. no. 31); this figure's hair is also quite similar to, for instance, the hair of one of the centaurs on Munich 836 (cat. no. 20). This plate and another plate in the Villa Giulia (cat. no. 32), where the details of the human beings and of Nessos' horse body are much the same, while Heracles' chest is rendered in the same way as on Bibl. Nat. 173 (cat. no. 25), must be works by the Tityos Painter. Very similar in style to these plates are the remains of the animals and human beings on a sherd in Bonn (cat. no. 33).

Another work by the Tityos Painter is a globular cup now in Boston (cat. no. 34). Its sphinxes and lion have the characteristic details mentioned above, and the band of ivy is quite similar to that of Bibl. Nat. 173 (cat. no. 25).

On the painter's name-piece, Bibl. Nat. 171 (cat. no. 35), many details in the figure scenes on the shoulder recall his work although there are some variations. The horses are similar to those on the Reading amphora (cat. no. 30). Tityos' breast resembles that of the centaurs on Bibl. Nat. 173 (cat. no. 25) and the Pholos oinochoe (cat. no. 26). The rendering of his hips, abdomen, and sex recalls that of the corresponding features of Nessos on the plate in the Villa Giulia (cat. no. 32). The figures
stride along in the Tityos Painter's characteristic way. Several of them have eyes rendered as white blobs with black pupils.

However, the animals on the belly frieze are very different from his usual rendering of such creatures. Many of the most characteristic features are missing, so that while the shoulder representations are probably by the Tityos Painter himself, the animal frieze is more likely to have been made by an apprentice.

On the Florence oinochoai (cat. nos. 18-19), the palmettes of the neck friezes and of the belly frieze of 3778 (cat. no. 18) have a very special form. Basically it is the Paris Painter's palmette type $1^{68}$, but with one incision at the top drawn right down to the receptacle, and the others drawn only half way or less. The receptacle is red, delimited by a white line, and has a vertical incision in the centre. This very special palmette is also seen on a plate on the market (cat. no. 36) and on an oinochoe in Erlangen (cat. no. 37), both of which must be attributed to the Tityos Painter. The team of horses on the shoulder of the oinochoe (cat. no. 37) recalls the horses on the Reading amphora (cat. no. 30) and Bibl. Nat. 171 (cat. no. 35). Between the horses and the two women stands a plant of a type very often used by the Tityos Painter (see below).

A single palmette of this type is seen on two sherds from a patera (?) in Parma (cat. no. 38). The hindquarters of the feline and the forepart of the lion on one of the sherds are similar to those of the animals on, for instance, the Florence oinochoai (cat. nos. 18-19). A single specimen of the palmette is also seen on a fragmentary cup in Bonn (cat. no. 39), where the siren's body, legs, and wings are exactly the same as those of the sirens on the Parma sherds (cat. no. 38).

The panthers on a globular cup in the Metropolitan Museum (cat. no. 40) have faces drawn in the manner characteristic of the Tityos Painter (cf. fig. 7): one of them has a double shoulder line (cf. fig. 6); the woman's head is very similar to the heads of the sirens on the Parma sherds (cat. no. 38), and the way in which she holds her chiton recalls that of the women on the Erlangen oinochoe (cat. no. 37).

A cup of the same shape in Basle (cat. no. 42) is probably also a work by the Tityos Painter. For instance, the foreparts of the tritons are similar to those of the centaurs on the Pholos
oinochoe (cat. no. 26) and the one on the B-side of Bibl. Nat. 173 (cat. no. 25).

The vases mentioned above are all, with reasonable certainty, attributable to the Tityos Painter. Dohrn's other attributions to his Tityos Painter ${ }^{69}$ appear dubious or erroneous to me ${ }^{70}$.

The two oinochoai Bibl. Nat. 178 (cat. no. 43) and Toronto 919.5.138 (cat. no. 44) are very closely related. Dohrn considered them works by the Tityos Painter, pointing to a likeness between the animals on the Toronto oinochoe (cat. no. 44) and the animals on Bibl. Nat. 171 (cat. no. 35) and Bibl. Nat. 173 (cat. no. 25) ${ }^{71}$. This likeness appears to me very tenuous. Actually, the animals on the two oinochoai have none of the details characteristic of the Tityos Painter (see above p. 17). The panthers' faces are totally different. Nowhere on the two oinochoai is seen the double shoulder line. The incisions on the transition from body to front leg are not of the characteristic hooked shape, and the incisions on the paws are also different. In the human beings, too, the details are different: e.g. the rendering of the knee by two curved strokes. The figures' faces are characterized by a long concave profile of forehead and nose, something not seen in the work of the Tityos Painter.

The ornaments on the two oinochoai are not seen elsewhere in the Tityos Painter's production, with a single exception: in one of the squares of the meander on the belly of Bibl. Nat. 171 (cat. no. 35) (pl. 000) may be seen the same type of cross as used on the handle discs of the Toronto oinochoe (cat. no. 44).

When all the differences between the two oinochoai and the works of the Tityos Painter have been enumerated, it must be confessed that they have much in common. For example, the horse and the posture and dress of the human beings in the shoulder frieze of Bibl. Nat. 178 (cat. no. 43) are related to the team of horses and the posture and dress of the two women on the Erlangen oinochoe (cat. no. 37). Nonetheless, many details of these figures are also very different.

Two amphorae, one in Würzburg (cat. no. 45) and one in Vienna (cat. no. 46), must also be separated from the main group of vases attributable to the Tityos Painter. They share common traits with the works of both this painter and the painter
of the two oinochoai mentioned above. Their style of drawing is characterized by a number of small, nervous incisions and wavy lines. The proportions and postures of the human beings have much in common with those of the figures on the two oinochoai (cat. nos. 43-44). The same applies to the chiton of the warrior to the left of the A-side of the Vienna amphora (pl.000) which has counterparts in the chiton of the man to the extreme left on Bibl. Nat. 178 (cat. no. 43) and of the man to the extreme right on the Toronto oinochoe (cat. no. 44). The way in which the tips of the warriors' hair are rendered below their raised arms on the Vienna amphora (cat. no. 46) is also seen on the Toronto oinochoe (cat. no. 44). Few of the animal details on the Würzburg amphora (cat. no. 45) are identical to those on the two oinochoai (cat. nos. 43-44), yet there is some likeness between the griffins on all three vases, a likeness which is emphasized when these griffins are compared with any of the Tityos Painter's griffins.

The two amphorae (cat. nos. 45-46) could be works by a painter imitating the style of the painter of the two oinochoai (cat. nos. 43-44), but more likely they represent an early stage of this painter's production when he was more influenced by the Tityos Painter ${ }^{72}$ than in his later oinochoai ${ }^{73}$. For more about this painter, see p. 31 ff .

Like the other Pontic vase-painters, the Tityos Painter has a taste for vegetation in his compositions, in animal as well as in figure friezes. One of his favourite plants has a long stem with small dot-shaped leaves ${ }^{74}$. His special type of palmette used as a single plant is seen, as already mentioned, on the Parma sherds (cat. no. 38), Bonn 464,58 (cat. no. 39), and Münzen und Medaillen XVIII, 140 (cat. no. 24).

The trees carried by the centaurs on Munich 836 (cat. no. 20) have two types of leaves: those with incisions all along the edge, seen also on the Reading amphora (cat. no. 30) and on the Stockholm oinochoe (cat. no. 41), and those with only two curved incisions seen also on the plate (cat. no. 28). Under some of the animals on the Florence oinochoai (cat. nos. 18-19) are plants consisting of a stem crowned by one large heart-shaped leaf. A very similar plant is seen, for instance, on one of the Parma sherds (cat. no. 38) ${ }^{75}$.

Similar to the Paris Painter and the Amphiaraos Painter, the ornamental friezes of the Tityos Painter very often incorporate palmette and lotus. Frequently he combines them with volutes so that the palmette is standing, and the lotus (or another palmette) hanging. He too has several versions of both. I have already mentioned his special palmette (p.20) which might be called type $1^{76}$. Type 2 is a variant of type 1 where all the incisions are drawn right down to the receptacle which is smaller than in type 1 . Normally this type has no knobs along the edge ${ }^{77}$. Type 3, which is seldom seen, consists of single leaves, as the Paris Painter's type $3^{78}$. Diverging from these three types are the mutually related palmettes on the Reading amphora (cat. no. 30) and the cup in Basle (cat. no. 42).

His most frequently used type of lotus has a rounded receptacle separated from the petals by a white band and/or incisions. From the receptacle grow three petals, the central one normally differing in colour from the two outer ones. Sometimes the central petal is adorned with a vertical incision ${ }^{79}$. Elaborate versions of this lotus are seen on the neck of Munich 836 (cat. no. 20), the Erlangen oinochoe (cat. no. 37), the Stockholm oinochoe (cat. no. 41), and in the tondo of the Villa Giulia plate (cat. no. 27). On the neck of the Florence oinochoai (cat. nos. 18-19), the receptacle is square and not delimited from the petals by white lines or incisions. Lotus buds are seen on the necks of the Erlangen and Stockholm oinochoai (cat. nos. 37 and 41).

One of his specialties is a fan-shaped flower, seen on the belly of Munich 836 (cat. no. 20) and on the rim of Munich 976 (cat. no. 23) and Münzen und Medaillen XVIII, 140 (cat. no. 24), alternating with another type of flower.

The meander is seen on the Florence oinochoai (cat. nos. 1819), on Bibl. Nat. 173 (cat. no. 25), and on the Metropolitan Museum cup (cat. no. 40); the star meander on Bibl. Nat. 171 (cat. no. 25$)^{80}$.

Other ornamental bands appearing only infrequently are tongue pattern ${ }^{81}$, net pattern ${ }^{82}$, band of ivy ${ }^{83}$, band of spirals ${ }^{84}$, and undulating band ${ }^{84 a}$.

As in the case of the Amphiaraos Painter, comparatively few vases of a particular shape by the Tityos Painter have survived ${ }^{85}$.

It looks as if the Tityos Painter also generally used the same schemes of decoration as the Paris Painter.

One minor divergence is that, like the Amphiaraos Painter, he often places three friezes on the belly of his amphorae. The clay-coloured rim of Munich 836 (cat. no. 20) is not known from the extant works of the Paris Painter. Of vase shapes unknown in the Paris Painter's production, for example the chalice, it may be mentioned that on the only extant chalice by the Tityos Painter, Munich 937 (cat. no. 21), the lower part of the belly is decorated with a ring of rays instead of being black, as on the extant chalices by the Amphiaraos Painter. Of the two kyathoi, Munich 976 (cat. no. 23) is in a fragmentary condition but seems to be decorated in the same way as Münzen und Medaillen XVIII,140 (cat. no. 24), i.e. with a black foot and handle (except for a panel on the inside), a ring of rays around the lower part of the bowl, and an animal frieze on the upper part. On the rim there is an ornamental band. The three globular cups in the Metropolitan Museum, Basle and Sotheby (cat. nos. 40 42 and 29a) have a black foot, handle and rim. The lower part of the belly is decorated with a ring of rays and an ornamental band, the upper part and the shoulder with a figure frieze (in the main this structure of decoration is used on all the globular cups in the Pontic group).

The Tityos Painter was very fond of animal friezes and used them on the belly of four (out of five) oinochoai ${ }^{86}$ and on all four amphorae ${ }^{87}$. His favourite animals are the same as the Paris Painter's: lions, sphinxes, panthers, and griffins. Less common are goats, deer, rams, boars, and long-necked birds.

## Figure Scenes

The majority of the Tityos Painter's figure scenes are mythological. His favourite hero is Heracles, who appears on six of his works ${ }^{88}$. Heracles' dress and arms vary. On Bibl. Nat. 173 (cat. no. 25) and Ars Antiqua I, 129 (cat. no. 26), he wears a lion's skin drawn over his head, and is armed with both bow and club. On the Villa Giulia plate (cat. no. 32), the arms are the same, but he wears a chiton as on Munich 836 (cat. no. 20), where he is unarmed. On the Florence oinochoai (cat. no. 18-
19) he wears a lion's skin, but its head is seen on his breast and he is armed with a sword.

On Ars Antiqua I, 129 (cat. no. 26), Heracles’ adventure with the centaur Pholos is represented. Pholos is sitting on a stone; behind him is the pithos. Heracles has just started to drive away the attacking centaurs. The majority of the Greek representations of this myth are Attic. Most show Heracles receiving the wine from the pithos. However, a neck amphora in the Louvre ${ }^{89}$ also shows Heracles driving away the centaurs. Pholos is not seen and instead of him Athena stands beside the pithos. On a neck amphora in the Vatican ${ }^{90}$, Heracles fights against three centaurs beside the pithos. Here neither Pholos nor Athena are seen. The Corinthian representation of the myth on a kotyle in the Louvre ${ }^{91}$ is nearer to the Tityos Painter's. Pholos stands beside the pithos at the entrance to his cave while Heracles drives away the centaurs. This representation, being Middle Corinthian, is however much earlier than the Tityos Painter's. Two related representations are known from East Greek art, one on the temple frieze from Assos ${ }^{92}$, where Pholos stands behind Heracles, who shoots an arrow at the fleeing centaurs, the other on a fragmentary terracotta frieze from Akalan ${ }^{93}$ where Heracles, standing beside the pithos, shoots an arrow at the advancing centaurs ${ }^{94}$. Some of the fragmentary metopes from the temple at Foce del Sele have been claimed by the excavators to represent this myth ${ }^{95}$. Compared with the Greek representations of the myth, the Tityos Painter's is exceptional in showing Pholos seated instead of standing beside the pithos. L. Banti ${ }^{96}$ has collected four Etruscan representations of the myth all showing Pholos seated. Two of them are on the rim of Red Ware braziers ${ }^{97}$ and are very close to the Tityos Painter's representation of the myth. Banti thinks that they are based directly on his representation, and that the Tityos Painter introduced this variation of the theme with a seated Pholos in Etruria. I find it more probable that the three representations have a common Etruscan source ${ }^{98}$.

A less elaborate centauromachy is seen on Bibl. Nat. 173 (cat. no. 25) where Heracles fights a centaur; on the other side a second centaur comes to the rescue. As mentioned on p. 14, this representation is very similar to that of the Amphiaraos Painter
on Munich 838 (cat. no. 1). In both these representations, the fight takes place face-to-face, a scheme seen also, for instance, on a stone relief in Tarquinia ${ }^{99}$ and a Red Ware pithos in Vienna ${ }^{100}$, whereas in Greek representations the centaurs are normally already on the run. However, an Attic oinochoe in the Musée Rodin ${ }^{101}$ and a Laconic dinos in the Louvre ${ }^{102}$ show the same scheme as the four Etruscan representations. On the dinos Heracles is armed with a club while the bow hangs on his back, while in Attic late black-figure representations he usually fights with a sword. On an Attic neck amphora in Munich ${ }^{103}$ the same distribution of figures is seen as on Bibl. Nat. 173 (cat. no. 25), but here the centaur on the B-side is pulling up a tree.

Heracles' fight against Nessos is depicted on one of the two recently acquired plates in the Villa Giulia (cat. no. 32). Deianeira runs in front of Nessos and there is a tree between them. Nessos, who is rendered as an Ionic centaur, carries a tree and is being pursued by Heracles, who is armed with bow and club. The motif is also seen on the oinochoe by the Paris Painter in the Villa Giulia ${ }^{104}$, but here Deianeira, partly hidden by Nessos' hindquarters, is running towards Heracles. This scheme is also known from three Caeretan hydriai ${ }^{105}$ and from Attic vase painting. On the other hand, the Tityos Painter's rendering of Deianeirarunning in front of Nessos-is very seldom seen in Attic ${ }^{106}$. He probably borrowed the motif from the Paris Painter ${ }^{107}$, and changed it in order to fill out the whole frieze on the plate ${ }^{108}$.

An unusual motif is seen on the A-side of Munich 836 (cat. no. 20). The left half of the scene is filled by a monster with 12 snake heads, the right half by a man clad in a chiton carrying two dogs and running towards the monster. The scene has usually been interpreted as Heracles and the Hydra, but Amandry ${ }^{109}$ excludes it from his list of representations of this myth. Although it must be admitted that this scene has no connection with other Etruscan representations of Heracles' fight against the Hydra ${ }^{110}$, I find it very difficult not to consider it a representation of this myth. Heracles, dressed only in a chiton, and without the lion's skin, is also seen on the plate in the Villa Giulia (cat. no. 32). The reason why the Tityos Painter provided Heracles with the two dogs was probably that they were to be fed to the monster. There may be an Attic parallel to this on a skyphos in

Athens ${ }^{111}$, where Heracles is extending in his right hand a white object (more of which he carries on his left arm) towards the monster. The object is usually interpreted as a stone but, as Brommer has suggested, it could be drugged meat or the like.

Finally, on the two oinochoai in Florence (cat. nos. 18-19) Heracles is seen flanked by two lions whom he seems about to attack with his sword. The motif, which is very similar to that on British Museum B56 (cat. no. 64) by the Silen Painter, has been examined by Schauenburg ${ }^{112}$.

The shoulder scenes on the Reading amphora (cat. no. 30) have been interpreted by Ure as follows; A: Achilles, who has unhorsed Troilos after leaping on to the led horse; and B: Achilles carrying Troilos to the altar in order to sacrifice him ${ }^{114}$. The interpretation of scene $B$ is probable, although the representation is unique. Greek representations of the sacrificing of Troilos are rare, and the few that exist either represent the moment when Achilleus sacrifices the youth ${ }^{115}$ while Trojan warriors advance towards the altar, or when Achilles, who has just killed Troilos, now defends himself against the Trojans ${ }^{116}$. Without name inscriptions, it is sometimes difficult to distinguish between representations of this theme and representations of the death of Astyanax ${ }^{117}$.

If Ure's interpretation of the A-side (as Achilles just having thrown Troilos off his horse) is correct-and to me it seems so, as it can hardly be interpreted as a battie scene (an amazonomachy) because the two men in Scythian dress are unarmedthis is also a unique representation of the myth ${ }^{118}$. The usual representation of this phase of the Troilos myth-the pursuit-is seen on Louvre E703 (cat. no. 49) by the Silen Painter ${ }^{119}$, where Achilleus pursues Troilos on foot. However, on one of the Loeb tripods ${ }^{120}$, where the pursuit is depicted in the usual way, there is a fallen warrior (?) under Troilos' horses ${ }^{121}$. This fallen warrior is unknown in Greek representations of the myth, but he is seen in Etruscan Hellenistic representations ${ }^{122}$. It looks as if he is rather an established element in Etruscan versions of the myth. The Tityos Painter probably misunderstood another Etruscan representation of the theme or deliberately changed it so as to depict the fallen warrior as Troilos. On an urn from Chiusi in Berlin ${ }^{123}$, the motif of a fallen warrior under a mounted horse-
man with a led horse is very close to the representation on the Reading amphora (cat. no. 30), except for the fact that Troilos' companion has been replaced by two standing, saluting men. A rather similar motif is seen on two Etruscan helmet attachments in the Ny Carlsberg Glyptotek ${ }^{124}$ (pl.00). In terms of their content, the two last-mentioned examples can hardly have any connection with the Reading amphora (cat. no. 30), but they show that it is an established pictorial type which can be used for different purposes. A figure lying (though hardly fallen) under a horse is also seen in other Etruscan monuments, such as on the silver relief in the British Museum ${ }^{125}$ and on the Monteleone chariot ${ }^{126}$. In some of the late Etruscan urns with representations of the Troilos myth, a helmet or the like ${ }^{127}$ is placed under the horse, showing that the purpose is purely filling. The hydria often seen under the horses in Attic representations is not seen in any of the early Etruscan versions and only very infrequently in the later Etruscan, in accordance with the fact that Polyxena here plays a very secondary role in the myth ${ }^{128}$. In archaic Greek art a fallen warrior is normally not placed under one horse but under two oppositely rearing horses ${ }^{129}$, or under a team of horses ${ }^{130}$. The Thracian dress worn by Troilos and his companion does not occur in Attic representations until the classical red-figure style ${ }^{131}$. It could be the Tityos Painter's own invention or borrowed from another-now lost-Etruscan monument.

The unusual representation on the A-side of Bib. Nat. 171 (cat. no. 35) of Apollo punishing Tityos for carrying off Leto has already been treated by several scholars ${ }^{132}$.

On the B-side of this amphora (cat. no. 35) is a scene which de Luynes ${ }^{133}$ interpreted as the punishment of Koronis and Ischys, an interpretation which has recently been reconfirmed by E. Simon ${ }^{134}$. The man and woman with bows to the right can hardly be other than Apollo and Artemis ${ }^{135}$. Before trying to interpret the scene further, let us consider the very unusual scene on the shoulder of the Stockholm oinochoe (cat. no. 41). From the right march two hoplites and a warrior in a Thracian cap ${ }^{136}$ who carries a sword or a dagger. In front of them a seated woman raises her arms in an imploring gesture towards six men in short chitons and winged boots who come from the left. The first of these men carries a bow and arrows in his left hand while he
stretches out his right in greeting. The two men following him are armed with spears, the third one has a strange blunt weapon and wears a hat, and the two last carry axes. All five men raise their left arm in greeting. Cahn ${ }^{137}$ has suggested that the scene represents a gigantomachy with a pleading Gaia in front of three giants and Apollo with his bow and arrows in front of five other gods. The figure interpreted by Cahn as Apollo is very close in appearance to one of the two standing figures on the Velletri frieze slabs showing an assembly of gods ${ }^{138}$. On the Campana plaques a figure of the same appearance is seen twice: walking in front of a procession ${ }^{139}$ and running in front of a winged demon-like creature in winged boots who carries away a woman ${ }^{140}$. On the B-side of Bibl. Nat. 171 (cat. no. 35) the man with the bow, who is in all probability identifiable as Apollo, is also assisted by these winged demons in winged boots. Here they are not carrying the woman, but one of them has just grasped her chiton. On the Stockholm oinochoe (cat. no. 41), the five men behind Apollo may also be identified as demons assisting the god, although they do not have wings and are armed ${ }^{141}$. On this oinochoe too, Apollo differs from the other representations of him mentioned above by having winged boots. However, Apollo with wings on his feet is seen, for instance, on a late archaic/ early classical mirror in Vienna ${ }^{142}$ in a scene identified as his quarrel with Idas for Marpessa. The representations on the Stockholm oinochoe (cat. no. 41), Bibl. Nat. 171 (cat. no. 35), and the Campana slabs probably all depict an Etruscan myth or rather group of myths in which the essential elements are Apollo (in the aspect of a death god?), his winged assistants ${ }^{143}$, and a woman whom they carry off.

On the cup in the Metropolitan Museum (cat. no. 40), the woman with the bow is probably Artemis, while the man could be one of Apollo's assistants because he has the same equip-ment-winged boots and axe-as the two hindmost of Apollo's companions on the Stockholm oinochoe (cat. no. 41).

A running wolf-man is seen on the tondo of one of the plates in the Villa Giulia (cat. no. 32). His head is that of a wolf, his body is hairy, and his fingers are replaced by large claws, but his feet are human. Such wolf-demons are also seen elsewhere in Etruscan art ${ }^{144}$. Erika Simon ${ }^{145}$ has convincingly connected
them with the cult of Soranus on the Soracte ${ }^{146}$. The closest parallel to the Tityos Painter's wolf-man is the one on a blackfigure amphora, Louvre E 723, attributed by Dohrn to the IvyLeaf Group ${ }^{147}$; this figure, however, has a more human appearance and wears a chiton and cuirass.

The inspiration of the tondo on the plate in the Ny Carlsberg Glyptotek (cat. no. 31) was probably the tondos of Greek kyli$\mathrm{kes}^{148}$. Also, the motif itself-winged figure in winged boots and carrying wreaths-was borrowed from Greek art ${ }^{149}$.

The gorgons on the neck of the Reading amphora (cat. no. 30) have been thoroughly described in the CVA Reading 1. The strange objects which they hold in their raised hands are probably haltères as seen on the gorgon on the rod tripod in Berlin Fr. $767^{150}$.

## Dating

The following vases make up a very uniform group: the Florence oinochoai (cat. no. 18-19), Munich 836 (cat. no. 20), 937 (cat. no. 21), 976 (cat. no. 23), 990 (cat. no. 22), the Erlangen oinochoe (cat. no. 37), the sherds in Parma (cat. no. 38), Bonn 464,58 (cat. no. 39), and Münzen und Medaillen XVIII, 140 (cat. no. 24). They are all characterized by meticulous drawing, and the proportions of their figures are rather similar to those used by the Paris Painter.

Bibl. Nat. 173 (cat. no. 25), Ars Antiqua I,129 (cat. no. 26), the Basel cup (cat. no. 42), Bibl. Nat. 171 (cat. no. 35), and the Reading amphora (cat. no. 30), on the other hand, show a wilder, more hasty style giving a wind-swept effect. One of the plates in the Villa Giulia (cat. no. 27) also belongs here, as its rams are very similar to the animals on Bibl. Nat. 173 (cat. no. 25). In the tondo figure on the plate in the Ny Carlsberg Glyptotek (cat. no. 31), the figures on the Nessos plate in the Villa Giulia (cat. no. 32), and the sherd Bonn 507 (cat. no. 33), the details are rendered in a way resembling that of Bibl. Nat. 173 (cat. no. 25), although the drawing is much more meticulous and without the turbulent effect, showing that there is no chronological difference between his hasty and his neat style.

Group 1 presumably represents the first stage of the Tityos

Painter's career when he was still strongly influenced by the Paris Painter ${ }^{151}$. On Munich 836 (cat. no. 20) and the Erlangen oinochoe (cat. no. 37), the zig-zag folds of the garments recall those of the Paris Painter on, for instance, British Museum B $57^{152}$, and those of the Silen Painter on the amphora in Bruxelles ${ }^{153}$. Similar folds are also seen, for example, on the Basle cup (cat. no. 42). On Bibl. Nat. 171 (cat. no. 35), the plate in the Ny Carlsberg Glyptotek (cat. no. 31), and the Nessos plate in the Villa Giulia (cat. no. 32), the Tityos Painter uses the more recent tubular folds ${ }^{154}$, whereas on the Stockholm oinochoe (cat. no. 41) he seems to attempt to render zig-zag folds radiating from a central fold (cf. the Bibl. Nat. 178 Painter p. 33).

Compared with the Paris Painter, the Tityos Painter is also more advanced in the rendering of anatomical details: for example, he renders the collar-bone and the single toes on the hindmost foot.

The plates in the Villa Giulia (cat. nos. 27 and 32) were found in grave 177 on the Necropoli dell'Osteria in Vulci ${ }^{155}$.

The Tityos Painter seems to have started his career some time after 530 B.C. ${ }^{156}$ and to have continued to work to at least around 510 B . C. or perhaps later.

## The Painter of Bibliothèque Nationale 178

On p. 21 I removed the two oinochoai Bibl. Nat. 178 and Toronto 919.5.138 (cat.nos. 43-44) from the work of the Tityos Painter and attributed them to a separate vase painter, to whom also the two amphorae Würzburg 780 (cat. no. 45) and Vienna IV 1127 (cat. no. 46) can perhaps be attributed.

The two oinochoai are among the best of the Pontic vases and their painter was certainly of the first rank in the Pontic workshop. Unfortunately, it is difficult to attribute other vases to him. The globular cup Munich 984 (cat. no. 47) could be a work by him. The lion and the panther are related to the animals of the four vases mentioned above, although not very many details are exactly similar. The wings of the sphinx differ from the normal wings of his animals, however, they are not very different from the wings of the demon on the shoulder of the Toronto oinochoe (cat. no. 44). The head of the sphinx has a certain
resemblance to the head of one of the dancers on the neck of the Würzburg amphora (cat. no. 45).

An oinochoe in the British Museum (cat. no. 124) is related to his works. Several points of resemblance can be enumerated: the palmette ornament at the handles; the white loin cloth of one of the dancers recalling that of the older man on the Toronto oinochoe (cat. no. 44); the drawing of the fingers; and the curved incisions indicating the upper arm muscles, which resemble the calf muscles of the two men flanking the kylix on the Toronto oinochoe (cat. no. 44). The posture of the standing man to the right of the handle is similar to that of the foremost man on Bibl. Nat. 178 (cat. no. 43) and his hair style recalls that of the hindmost man on this oinochoe. However, the proportions of the figures and a large number of details are very different, so probably the oinochoe in the British Museum (cat. no. 124) was made by an apprentice rather than by the Painter of Bibliothèque Nationale 178 himself. If, however, it is considered to be a late work by this painter, the idea of attributing a hydria in the Villa Giulia to him (see p. 49) must be abandoned.

The following discussion of this painter, to whom so few vases can be attributed, must necessarily be of a very preliminary character.

Several new ornaments are seen on the five vases (cat. nos. 43-47) ${ }^{158}$ and also ornaments wellknown from other Pontic vase painters are often of a different form ${ }^{159}$, or combined in a new way ${ }^{160}$. The ornamental frieze above the ring of rays on the Vienna amphora (cat. no. 46) is also seen in the works of the Silen Painter and the Tityos Painter ${ }^{161}$, and, as mentioned in note 72, the lotus-palmette frieze on his Würzburg amphora (cat. no. 45) is related to those of the Tityos Painter. As for the scheme of decoration, nothing new is seen. His favourite animals also seem to have been lions, panthers, sphinxes, and griffins. Hippocamps and tritons are seen on Würzburg 780 (cat. no. 45) and Bibl. Nat. 178 (cat. no. 43), respectively. On the latter vase, he has provided one of the sphinxes with a pair of human legs.

His figure scenes-both those of the two oinochoai (cat. nos. 43-44), and one of the two on the Vienna amphora (cat. no. 46)also include animals in a way that makes it difficult to say whe-
ther they are intended to be an integral part of the figure scene or just filling. The composition of all his figure scenes is rather uninteresting, and one gets the feeling that they often consist of single figures without relation to each other, meant only to be decorative.

The scene on the shoulder of Bibl. Nat. 178 (cat. no. 43) has been interpreted by E. Simon ${ }^{162}$ as Aphrodite (the woman with the staff) leading Paris to Helena, the man behind Aphrodite being Aeneas. This interpretation is rather hypothetical, there being no Etruscan representations of the theme in the same form. Aphrodite (Turan) bringing Helena and Paris together is seen on some late Etruscan mirrors ${ }^{163}$, but in quite a different form.

With respect to the dating of this painter, the general appearance of the chitons of the two women on Bibl. Nat. 178 (cat. no. 43) is very similar to that of Leto (Gaia) on Brussels R223 (cat. no. 57). However, the lower edge of the part of the garment being lifted by the women shows folds running not just in one direction but radiating from a higher central fold ${ }^{164}$, recalling those seen in Attic red-figured vases from the last two decades of the sixth century. As examples might be mentioned the late works of Oltos, such as the large kylix in Tarquinia ${ }^{165}$ or the Nicosthenic amphora Louvre G2 from the Pamphaios group ${ }^{166}$, in which the general appearance of the garments of the women is also very similar to that on Bibl. Nat. 178 (cat. no. 43). Among the Caeretan hydriai, similar radiating folds are seen on the chitons of Hermes on Vatican $229^{167}$, and of Nestor on Louvre C321 ${ }^{168}$, both of which are dated by Hemelrijk ${ }^{169}$ to after $520 \mathrm{~B} . \mathrm{C}$.

It is difficult to ascertain how much earlier are the two amphorae Würzburg 780 (cat. no. 45) and Vienna IV 1127 (cat. no. 46). The clay-coloured rim might indicate that they were made about the same time as Munich 836 (cat. no. 20) by the Tityos Painter. For the possibility of the Painter of Bibliothèque Nationale 178 to continue his career after the Pontic tradition had come to an end, see p. 49.

## The Silen Painter

By Anja Drukker ${ }^{170}$ and Lise Hannestad.

The Silen Painter was introduced in "The Paris Painter" under the colourless name of the Louvre E703 Painter ${ }^{171}$. In the following we take a closer look at him and his work ${ }^{172}$.

We consider his name-piece to be the amphora Würzburg 779 (cat. no. 48) where both shoulder zones are decorated with four dancing silens. This amphora is very close to the work of the Paris Painter and, as has been suggested ${ }^{173}$, the Silen Painter was probably a pupil of the Paris Painter. We shall see that he was also influenced to a certain extent by the youngest Pontic painter, the Tityos painter.

The important identifying traits of this painter as seen on the Würzburg amphora (cat. no. 48) (and by which a series of other vases can be attributed to him as well) may be described as follows. The dancing silens (see fig. 10) have a characteristic facial profile: a snub nose with a little hook underneath, an almond-shaped eye that tends to become circular on some vases ${ }^{174}$, and a mouth incised by a straight, short stroke ending in a sharp angle downwards. Their ribs are incised in a fir-tree pattern, and the calf muscle is indicated by a curved line that is sometimes S-shaped. This last detail may be seen in the works of the Tityos Painter, whereas the Paris Painter draws quite a different calf ${ }^{175}$. In the rendering of knee caps, the Silen Painter is not always consistent. On the Würzburg amphora (cat. no. 48) occur at least four different stylizations, and even more variations are to be seen on other vases. On the whole, these dancing silens give a fleshy and sturdy impression, while their movements are lively but heavy. The same dancing silens are to be seen on the amphorae Louvre E703, Munich 840-41 (cat. nos. 49-51), the oinochoai Munich 924 and Bonn 1587 (cat. nos. 52-53), and the fragmentary chalice Munich 952 (cat. no. 54). On the ampho-

ra Munich 839 (cat. no. 55) and the oinochoe in Oxford (cat. no. 56) the dancers are not silens but human beings.

The silens always have long horses' tails, whereas the feet and ears may be either equine or human. On Munich 952 (cat. no. 54) there is one silen with horses' ears and one with human ears; on Louvre E703 (cat. no. 49) one silen has hoofs and the others have human feet. On Würzburg 779 (cat. no. 48) and Bonn 1587 (cat. no. 53) all the silens have horses' feet; on the other vases they have human feet ${ }^{176}$. All these vases showing silens were attributed by Dohrn to the Paris Painter (except for Munich 952 (cat. no. 54) which was not attributed to any painter), but a comparison between these silens and those on a hydria in Fiesole ${ }^{177}$, which was without question decorated by the Paris Painter, clearly reveals the differences. Also instructive is a comparison with the dancers on the Paris Painter's amphora in Orvieto ${ }^{178}$. These figures wear white animal hides, just as some of our silens do, but details like the drawing of the calf and the knee caps, as well as the physiognomy and proportions of the figures, are so dissimilar as to point very strongly to the existence
of two different painters. At the same time, this Orvieto amphora clearly influenced the subsequent works of our painter.

Around the belly of the Würzburg amphora (cat. no. 48) runs an animal frieze that shows additional identifying traits of the Silen Painter. Towards the left, in procession, walk a bull, a deer, a panther, a goat, and a siren, while a bird, called an eagle by Langlotz, is turned towards the right. In general, animals are of particular importance in attributing a vase to the Paris Painter, and, as already pointed out ${ }^{179}$, there are many differences between the Würzburg animals and the Paris Painter's animals. Some small but notable incisions on the Würzburg animals are the two parallel short strokes on the hind legs and the small circles on the ankles (see fig. 11). The latter feature may be borrowed from the Paris Painter ${ }^{180}$, though he only incises a semicircle on the ankles. The Silen Painter does not confine this circle to the ankles: the paws of a lion, a panther or a sphinx may also be embellished by it.

The shoulder, which the Paris Painter renders more or less consistently by a kind of double arch, is indicated by the Silen Painter by a slightly curved line, sometimes in the form of a less pronounced double arch, sometimes by an S-shape. The siren on the Würzburg amphora (cat. no. 48) has widespread wings with a rounded upper part, a type of wing which occurs on quite a number of vases. A second type can be seen on the London dinos (cat. no. 58): here the top part of the wing is cut off straight horizontally. The reason for this cutting off might have been a practical one: the animals were painted on a scale too large for the space allowed by the borderlines of the decoration zone, so it was impossible to paint a round wing. On the amphora Brussels R223 (cat. no. 57) both types occur, but, as we shall see, the Silen Painter usually did not mind rendering the same details in different ways on one and the same vase.

There is also a remarkable difference in the proportions of the animals: some are "normal", some are extremely heavy, and some are extremely slim. The Würzburg animals may be placed in the first category, whereas on the oinochoe Bonn 1587 (cat. no. 53), the two other types are represented: on the neck walks a fat lion-who also appears on the London dinos (cat. no. 58)and, around the belly, walk panthers with very long, slim legs, something also seen on the Oxford olpe (cat. no. 59). Nearly all
the animals have a white belly, which is occasionally delimited by incision. Sometimes it is just a white stripe, and sometimes the upper border is elegantly curved, as demonstrated by the Würzburg animals.

Whereas the rendering of anatomical details is a trustworthy characteristic in attributing a work to the Paris Painter, the same cannot be said for the work of the Silen Painter. The anatomical details in fore and hind legs are indicated by lines, which may be long or short, straight or curved, or by nothing at all. The haunches and ribs are mostly indicated by two or three concentric curved lines, which however are a standard feature in nearly all vase fabrics. The eyes again show a differentiation in stylization: triangular, almond-shaped, circular, with or without a tear duct. Pupils are not indicated. All in all, it has become clear that our painter has a variable style which is difficult to pin down. However, for every vase in the catalogue there are good reasons for an attribution to him, though there does exist a small number of vases of which the attribution is less manifest. These will be discussed below.

Fourty different ornaments occur on the twenty-four vases! One of the Silen Painter's favourite ornaments is the palmette with knobbed edge. It occurs on eight vases ${ }^{181}$ and consists of a solid palmette on which leaves may be incised ${ }^{182}$. The receptacle is-except for the palmette on Louvre E703 (cat. no. 49)always indicated, sometimes by incision and sometimes by adding colour or by reservation. Sometimes the knobs on the edge of the palmettes are round dots ${ }^{183}$ and tend to become a thick wavy line. The palmettes around the belly of the Oxford oinochoe (cat. no. 56) can also be considered "knobbed palmettes', these however are not solid, but from the receptacle grow separate leaves ending in dots. This knobbed edge is also seen on some animals in the figure frieze: the horses' manes on Louvre E703 (cat. no. 49), Munich 923 (cat. no. 60), and the lions' manes on Munich 920 (cat. no. 63), London B56 (cat. no. 64), Bonn 464,45 (cat. no. 65), the lion in the upper frieze of the London dinos (cat. no. 58), and the one on the fountain of Louvre E703 (cat. no. 49). Although this knobbed edge does not furnish a sufficient criterion for attribution, it is still an important feature.

As stated above, the Silen Painter was very much inspired by
the Paris Painter with regard to figure friezes, and this applies to the ornaments as well. Besides the solid, knobbed palmette, we also see palmettes with separate leaves standing upright around the lower part of the London dinos (cat. no. 58) and turned in a horizontal position around the belly of Munich 923 (cat. no. 60). The latter arrangement echoes that on the Paris Painter's amphorae Bibl. Nat. $172^{184}$ and Villa Giulia ${ }^{185}$, though there the leaves are separated by incision. A simplified version of this palmette is depicted on the neck of Munich 922 (cat. no. 66). The palmettes on the two small bands underneath the figure friezes of Munich 923 and 924 (cat. nos. 60 and 52) are only rudimentary. Palmettes are always combined with lotus blossoms or buds, and the types occurring do not differ essentially from those described in the "Paris Painter" ${ }^{186}$. The net pattern on the rims of Louvre E703 (cat. no. 49), Würzburg 779 (cat. no. 48), and the Oxford olpe (cat. no. 59) is well attested in Pontic ornamentation, and so are the tongue pattern ${ }^{187}$, the standing or pendant lotus flowers and buds on curved or interlacing stems ${ }^{188}$, the meander ${ }^{189}$, and the star meander ${ }^{190}$. As far as the large meander composition on the shoulder of Munich 923 (cat. no. 60) is concerned, Dohrn pointed to parallels in Etruria ${ }^{191}$. The band of loops enclosing very simplified lotus buds is to be seen only on two other Pontic vases ${ }^{192}$. The scales with dots on the lip of the Brussels amphora (cat. no. 57) (there divided by a zigzag line) only recur on the handles of a Nicosthenic amphora by the Paris Painter ${ }^{193}$. The motif may be inspired by Etrusco-Corinthian pottery.

Besides the knobbed palmette, another favourite motif of the Silen Painter is the spiral or lyre. By the complex combination of several spirals, intricate ornaments such as those seen on the neck of Louvre E703 (cat. no. 49) are created. The simplest form of the spiral band may be seen around the belly of Munich 922 (cat. no. 66): it consists of a simple row of spirals next to one another, enlivened by small coloured leaves. This band is doubled on the neck of Munich 839 (cat. no. 55) and around the belly of British Museum B56 (cat. no. 64) where the leaflets are incised like chevrons. The spirals may be turned opposite to each other. The double spiral band can also be seen around the belly of Munich 923 (cat. no. 60), where it is enlarged by a
separate leaf palmette; it also forms the middle part of the ornament on the neck of Louvre E703 (cat. no. 49). The upper and lower parts of that ornament are very much akin to the lower half of the ornament around the belly of Würzburg 779 (cat. no. 48), while we meet standing volutes underneath the animal frieze of the Oxford olpe (cat. no. 59). The neck of Munich 841 (cat. no. 51) is decorated by volutes turned vertically so as to create a double volute cross, again enlivened by small coloured leaves as well as by two horizontal flowers. This ornament is very much like the ornament on a La Tolfa amphora ${ }^{194}$.

Our painter's love of spirals led him to insert them even into figure friezes: in that of Munich 841 (cat. no. 51) a volute grows under the legs of the warrior. Here it may be considered as a filling ornament (just like the bird and the plant underneath the legs of Achilles and his companion on Louvre E703 (cat. no. 49 ) and the bird under the winged man on Brussels R223 (cat. no. 57)), as must certainly the flying spiral above one of the silens on Munich 952 (cat. no. 54).

Spirals were also used to adorn the handle zones: on Louvre E703 (cat. no. 49) both the handle attachments are framed by a black line ending in volutes connected by three horizontal lines. Out of the handle zone of Munich 922 (cat. no. 66) comes a spiral with a lotus flower, and under the handle zone of the Oxford olpe (cat. no. 59) hangs a volute as tall as the whole animal frieze, with three small leaves forming a weakened palmette. On the namepiece amphora (cat. no. 48) we also see a palmette underneath the handle zone and this feature, which was originally based on an imitation of metal vases ${ }^{195}$, is not uncommon in Pontic vase production ${ }^{196}$.

In view of the above discussion of these main characteristic details, it should be clear that most of the vases included in the catalogue are decorated by the Silen Painter. As stated, certain of the listed vases present some difficulties in attribution, and the purpose of the following discussion is to look more closely at those in question. The vases listed in the catalogue as nos. 4953,60 and 57 have already been attributed to him ${ }^{197}$; cat. nos. 58 and 64 were termed "related to this painter's works".

The oinochoe Munich 920 (cat. no. 63) was assigned by Dohrn to the Tityos Painter, and his arguments for it are not unreason-
able: his comparison of the hair of the man (Heracles?) and the two women with the hair of the man on New York 06.1021.46 (cat. no. 40) is justified, as is also his statement that the vases illustrating women gathering their skirts are related ${ }^{198}$. In spite of these arguments the oinochoe also possesses certain characteristics pointing to the Silen Painter: the lions' heads may be profitably compared with one of the lions on the London dinos (cat. no. 58) (Pl. 30-31), and the double arch separating the mane from the face is rather typical of our painter ${ }^{199}$ (see fig. 12). The horizontal folds in the skirts of the woman are not unlike those in the dress of Leto on the Brussels amphora (cat. no. 57), while the face of the man between the lions closely resembles that of Apollo on the Brussels amphora. Around the belly can be seen a broad black band, a feature which is not very common on Pontic vases, but which recurs on two other vases of the Silen Painter (cat. nos. 51 and 55). The proportions of the man, especially of the fleshy thighbones, are similar to those of Achilles on the amphora Louvre E703 (cat. no. 49). The knobby edge of the lions' manes, a characteristic mentioned above, can be compared with the horse's manes on Louvre E703 and Munich 923 (cat. nos. 49 and 60). The knobby palmette around the belly of the Munich oinochoe (cat. no. 63) has already been discussed. Thus, it is clear that this vase can safely be attributed to the Silen Painter.

Dohrn's attribution of the oinochoe British Museum B56 (cat. no. 64) to the Paris Painter was previously discredited by He melrijk ${ }^{200}$. To Dohrn ${ }^{201}$, the proportions of the man drawing his sword suggested those of the corresponding figure on the Paris Painter's hydria in Fiesole ${ }^{202}$; further he compared the lion's head and leg incisions with those of the animals on Vatican $231^{203}$ and Würzburg 779 (cat. no. 48). To us, however, these arguments illustrate the inspiration which the Silen Painter received from the Paris Painter. It is not difficult to see, for instance, that the physiognomy of the kneeling man is not typical of the work of the Paris Painter; on the contrary, the face with the snub nose strongly suggests the Silen Painter's facial drawing. The lion's head seems an imitation of the typical lion of the Paris Painter ${ }^{204}$, as does the panther's. The knee cap of the man is one of the types occurring on Würzburg 779 (cat. no. 48) and

Louvre E703 (cat. no. 49). The belly stripes of the animals are coloured and incised in the same way as on the Würzburg animals. The division into zones, all separated by two thin varnish lines, is exactly matched on the oinochoe Munich 922 (cat. no. 66), while the discs flanking the handle have the same eight-petal rosette as those on Munich 924 (cat. no. 52). All in all, an attribution of this oinochoe to the Silen Painter seems justified, though it stands a bit apart from the core of his work.

An oinochoe (cat. no. 61) in Basle shows a symposium. Underneath the belly ornament runs an animal frieze which is not in the style of the Silen Painter, but in spite of this the symposium is so similar to those illustrated on the fragments in Bonn (cat. nos. 65 and 68) that there can be no doubt about its attribution to the Silen Painter ${ }^{205}$.

Regarding the other vases included in the catalogue, it is assumed that the attribution is clear without further explanation.

There remain some small vases outside the catalogue because their details are too weakened to justify an attribution, but they do bring to mind the Silen Painter, and they may belong to the outskirts of the oeuvre: a chalice depicted in auction catalogue Ede Nov. 1973 no. 94,23 (cat. no. 154), showing animals with slim legs; a one-handled cup Munich 987 (cat. no. 114) also showing animals including a lion with a cusped mane; exactly the same lion is to be seen on a chalice Sotheby $3-12-73$ no. 121 (cat. no. 140); a two-handled cup Munich 989 (cat. no. 95) showing a symposium not unlike that of cat. nos. 54 and 68 ; an oinochoe in Hamburg (cat. no. 103) showing six men on horseback holding a branch behind them, and on the shoulder a large meander complex interspersed with small animals. This vase seems to be a direct copy of the oinochoe Munich 923 (cat. no. 60), but as the drawing shows no characteristics of the Silen Painter, we consider it an imitation by some other hand.

## Figure scenes

The Silen Painter has a strong preference for Dionysian themes such as dancers (very often silens and maenads) and banquet scenes. In the Paris Painter's production there are a couple of vases with comast scenes ${ }^{206}$ and one with an unusual
banquet scene ${ }^{207}$. Dancing scenes are also seen on the Toronto oinochoe (cat. no. 44) by the Bibl. Nat. 178 Painter and on the oinochoe in the British Museum (cat. no. 124), but it seems that among the Pontic vase painters only the Silen Painter was really concerned with these themes.

Dancing silens and maenads are seen on Louvre E 703 (cat. no. 49), Bonn 1587 (cat. no. 53)-where a large krater has been placed between two of the silens-and Munich 924 (cat. no. 52) -where Dionysus is present, sitting on a throne with a kantharos in his hand. On Würzburg 779 (cat. no. 48), Munich 840 (cat. no. 50), 952 (cat. no. 54), and 841 (cat. no. 51), only silens perform the dance. On Munich 840 (cat. no. 50) Dionysus is seen again, this time standing calmly among the wild silens. Revellers are seen on Munich 839 (cat. no. 55) and in a more elaborate scene on the oinochoe in Oxford (cat. no. 56).

As mentioned in "The Paris Painter", ${ }^{208}$, the white animal hides worn by two of the silens on Würzburg 779 (cat. no. 48) were probably inspired by works of the Paris Painter such as Orvieto $463^{209}$. The scenes of dancing maenads and silens in the presence of Dionysus were probably borrowed by the Silen Painter from Attic vase painting.

Of his banquet scenes, only that on Basle 211 (cat. no. 61) is fully preserved. Six men dressed in cloaks lie on three couches with cushions and covers. Some of them have drinking cups or phialae in their hands. In front of the couches are three tables. To the far left are seen a large kylix, a table (?), and a servant with a large oinochoe. Another servant raising his left hand in a kind of greeting (?) stands between two of the couches.

The more fragmentary scenes on Munich 952 (cat. no. 54), Bonn 464,45 and 46 (cat. no. 65), and 464,70/71/75 (cat. no. 68) seem to be very similar to that on the Basle oinochoe (cat. no. 61). On both Munich 952 (cat. no. 54) and Bonn 464/45/46 (cat. no. 65) is seen the servant standing with the large oinochoe.

Banquet scenes are a favourite motif of Etruscan art of this period ${ }^{210}$ and in many ways the Silen Painter's banquet scenes are typical Etruscan. For example, the kline with its cover hanging over both ends is a characteristic feature of Etruscan banquet scenes ${ }^{211}$. The servant with the oinochoe and the gestures of the figures are also in accordance with the majority of Etruscan
banquet scenes. However, compared with other Etruscan representations, those of the Silen Painter are rather simplified, there being no musicians, or no birds and dogs under the klinai.

Horsemen are seen on the B-side of the Brussels amphora (cat. no. 57) and on Munich 923 (cat. no. 60). In both cases, a winged demon is placed among them. The Silen Painter probably borrowed the motif from the Paris Painter, who used it frequently.

The representation of a woman standing behind one of the fighting warriors on Munich 841 (cat. no. 51) was probably also borrowed from the Paris Painter ${ }^{212}$. The painter had no room for a woman behind the second warrior, so here he placed the forepart of a horse. The fighting scheme in which one of the warriors grasps the other by his crest is very common in Greek fighting scenes.

In the hunting scene on the A-side of Munich 839 (cat. no. 55), the woman and the naked man behind the man with the bow are probably purely filling, without relation to the hunt.

The amphora Louvre E 703 (cat. no. 49) has on its A-side a representation of Achilles pursuing Troilos. This phase of the myth is very popular in Attic pottery of the 6th century. However, the motif of Achilles grasping Troilos by the hair seems not to have been depicted on any of the surviving blackfigured vases of the 6th century (?), the Brygos cup Louvre G $154^{213}$ being the oldest extant Greek example of it. It was not the Silen Painter's own invention, as it was used on one of the Loeb tripods also ${ }^{214}$. The most reasonable explanation is that the motif was borrowed from a Greek source now lost, rather than having been invented in Etruria and later taken up by Greek artists. A testimony to its long popularity in Etruria is found in the many representations of it on Etruscan Hellenistic urns ${ }^{215}$.

The B-side of Louvre E 703 (cat. no. 49) shows two warriors pursuing a woman who has placed one foot on the top step of a flight of stairs leading to an altar-like structure. She looks back rowards the warriors and raises her right arm. The scene has been interpreted as Polyxena at the fountain ${ }^{216}$. Although the altar-like structure is somewhat similar to the fountain on the A-side, there are nevertheless so many differences-above all no indication of a spout from which the water flows-that this
interpretation seems very unlikely. It is more probable that the scene shows Polyxena at an altar seeking protection from her pursuers during the fall of Troy ${ }^{217}$. However, this interpretation must also be considered hypothetical, as there are no close parallels to it in either Greek or Etruscan art.

On the A-side of the Brussels amphora (cat. no. 57) the punishment of Tityos is seen in a version nearer to Greek representations of the myth than is that of the Tityos Painter (cf. p. 28). These Greek representations, however, vary considerably. Only the fleeing Tityos and Apollo pursuing him are constantly seen. Artemis is usually also seen-armed like her brother with the bow ${ }^{218}$. Other figures and their positions vary. The only person on the Silen Painter's amphora whom it is difficult to identify is the woman running in front of Tityos. Camporeale ${ }^{219}$ named her Ge, because she seems to be fleeing from the Letoides instead of running towards them in the hope of rescue. However, when Ge is present in 6th century Greek representations of the myth, she always stands calmly in the middle of the scene ${ }^{220}$. An example of this can be seen on a Tyrrhenian amphora in Tarquinia ${ }^{221}$; here, the woman fleeing with Tityos in much the same way as on Brussels R 223 (cat. no. 57) must therefore be Leto. Probably, then, the woman on the Brussels amphora is also better identified as this goddess.

The rushing lion, in front of Apollo, is also seen in a representation of the myth on one of the Caeretan hydriai ${ }^{222}$, where, however, it is behind Artemis. Hemelrijk ${ }^{223}$ argues that here his Knee Painter for once did not get inspiration for his figure scenes from Attic models but from Etruscan. However, a late Attic black-figured lekythos by the Theseus Painter ${ }^{224}$, showing a lion in the same position as on the Brussels amphora (cat. no. 57), proves that this detail was also borrowed from Attic.

In the main, the representation of the punishment of Tityos on one of the Loeb tripods ${ }^{225}$ resembles that on the Brussels amphora (cat. no. 57), only here Artemis and the lion have been left out (probably due to lack of space), and Tityos has put his arm around Leto. Camporeale maintained that because Tityos' knee is on the ground both these Etruscan versions of the myth represent a later phase than do the Greek ones. We find this interpretation too subtle. In several of the Greek representations Ti -
tyos is already badly wounded by arrows, whereas on the Brussels amphora (cat. no. 57) he is not hit at all, so one might reverse the argument and hold that this represents an earlier phase.

For Camporeale's ${ }^{226}$ dating of the Brussels amphora as earlier than the Loeb tripod, see p. 46.

The amphora in Oxford (cat. no. 69) depicts a representation of Heracles pursuing a centaur on the A-side. The hero in "Knielauf" wears a red chiton and carries a large red object (a club?) in his right hand; in his left he holds a smaller red stick (?). The centaur is unarmed and looks back over his shoulder raising his left arm. The scheme is very much like the Paris and the Tityos Painters' rendering of the Heracles-Nessos adventure, except for the lack of Deianeira.

On the B-side of this vase (cat. no. 69) is seen a chariot drawn by two horses. The driver is equipped with a red whip. It may represent the hero's chariot.

## Dating

The Silen Painter's inconsistency in the rendering of details makes it difficult to establish an internal as well as an external chronology for his works.

However, it may reasonably be assumed that the vases whose style is strongly influenced by that of the Paris Painter belong to the earlier part of his production. This applies to Würzburg 779 (cat. no. 48), Ashmolean Museum 1971.911 (cat. no. 69), Louvre E 703 (cat. no. 49), Munich 839-41 (cat. nos. 55, 50-51) and 924 (cat. no. 52)-the last five forming a very homogeneous group. Close to these are also Munich 920 (cat. no. 63), 923 (cat. no. 60), and Brussels R 223 (cat. no. 57).

The oinochoai with banquet scenes ${ }^{227}$ probably represent a later stage in his production. They show the animals with very slim limbs. Bonn 1587 (cat. no. 53) is related by its silenmaenad frieze to the former group and by its animal frieze on the belly to the latter. Most of his other works should be placed in between these two groups. For example, Ashmolean Museum 1961.467 (cat. no. 59) has animals with slim limbs, whereas its two sirens are very similar to those of group 1.

Würzburg 779 (cat. no. 48) must have been produced about the same time as New York $55.7^{228}$ and Tarquinia $529^{229}$, both by the Paris Painter, as the ornamental friezes on the bellies of the three vases are very similar ${ }^{230}$. In addition, Würzburg 779 (cat. no. 48) has a convex rim decorated with a net pattern-a trait also pointing to a dating around the middle of the Paris Painter's career ${ }^{231}$.

The two amphorae Munich 839 and 841 (cat. nos. 55 and 51) have a markedly concave rim like that of the amphorae of the latest group of the Paris Painter's production ${ }^{232}$ and Bibl. Nat. 171 (cat. no. 35), which belongs to the latest works of the Tityos Painter.

Folds are no criterion for dating the Silen Painter's works, as he renders them in a highly inconsistent manner. On Brussels R 223 (cat. no. 57), for example, he carefully indicates the folds in Leto's chiton, but not a single one in the chitons of Apollo and Artemis. The same applies to Munich 920 (cat. no. 63), where he has attempted to render folds radiating from a central fold in the man's chiton, whereas no folds are seen in the chiton of one of the women, and there is only a rather summary rendering of folds in that of the other woman.

The Silen Painter's career probably started about the same time as that of the Tityos Painter-or perhaps a bit earlierand seems to have come to an end shortly before that of the latter, because tubular folds are not seen on any of his extant works. But as there is no line of development in his rendering of folds, this dating is still very uncertain.

In absolute dates we should place his career from ca. 530 to 510 B.C., or perhaps shortly before.

## Shapes ${ }^{233}$

To a large extent, the followers of the Paris Painter used the same vase shapes as he did. The amphora and the oinochoe with disc handles are also their favourite shapes among the large vases. However, the Paris Painter's Corinthianizing hydriai and his version of the Nikostenic amphora seem to have been given up. Only very occasionally did they try to vary the shape of amphora used by the Paris Painter ${ }^{234}$. The Amphiaraos Painter
(if he was the potter, too) changed the low conical foot into a bell-shaped one on Munich 838 (cat. no. 1), and on Berlin F 1673 (cat. no. 119) the usual round handles are replaced by tripartite. The Amphiaraos Painter also used a type of oinochoe differing from the usual one with dise handles. This second type, exemplified by Br. Mus. B 55 (cat. no. 7) and Karlsruhe B 2588 (cat. no. 8), is characterized by a more globular body, a round handle and a lack of discs. Like the usual type, it was probably borrowed from Etruscan bucchero. The oinochoe in Hamburg (cat. no. 103) has a unique handle clearly borrowed from metal prototypes. As Hoffmann pointed out, the handle is very similar to the handles of a group of Etruscan metal oinochoai ${ }^{235}$. These oinochoai are dated by their grave contexts to the period covering the last years of the 6th century and the beginning of the 5th. The imitation on this oinochoe probably shows that the manufacture of the metal oinochoai must have started a little earlier than hitherto maintained. Other unusual types of oinochoai are the two small ones in Würzburg, 783 and 784 (cat. nos. 90 and 89), with their high, bell-shaped foot, rather broad neck and bipartite handle without discs.

The unique olpe by the Silen Painter in Oxford (cat. no. 59) is of a shape which is also seen in Etruscan bucchero and bronzes ${ }^{236}$. Unique among the larger vases is the dinos by the Silen Painter in the Victoria and Albert Museum (cat. no. 58).

The number of different shapes used for the small vases is much larger. Among the surviving works of the Paris Painter are a plate ${ }^{237}$ and a kyathos on a stemmed foot ${ }^{238}$, shapes also popular among his followers. However, the most popular shape seems to have been the chalice on a stemmed foot of varying height. The stem sometimes has one or more profiles. Also common is the globular cup with offset rim and a horizontal handleoccasionally also supplemented with a vertical handle. These shapes, as well as the kyathos on a stemmed foot are, as Dohrn pointed out ${ }^{239}$, borrowed from bucchero.

The kyathos, of which, for instance, there are two examples among the surviving works of the Tityos Painter, derives from Attic or bucchero ${ }^{240}$.

Unusual drinking vessels are the kantharos ${ }^{241}$ and the globular cup with a flat or pointed bottom ${ }^{242}$. It is clear that at
least the version with the flat bottom has its prototypes in bucchero ware ${ }^{243}$.

Further examples of the great variety of shapes produced by the Pontic workshop are the two stands in Berlin and Amsterdam (cat. nos. 91 and 137) and the omphalos phiale in Würzburg (cat. no. 77).

An examination of the followers of the Paris Painter clearly reveals how closely they adhered to his system of decoration, using to a large extent the same vase shapes, ornaments, animals, etc. No really important innovations seem to have been made. Their undisciplined whimsical style is farther from Greek vase painting than the Paris Painter's and more deeply rooted in Etruscan art. Therefore, little more need be said about the relationships between the Pontic workshop and the Greek vase schools than already set forth in "The Paris Painter" ${ }^{244}$. Moreover, an enumeration of the many details which the Pontic vases have in common with other Etruscan types of monument has already been given by Dohrn ${ }^{245}$, and today the Etruscan origin of the Pontic vases is considered to be beyond doubt. For these reasons I shall concentrate on a few questions which are still controversial, or which have not yet been clarified.

A still insufficiently clarified problem is the relation of the Pontic workshop to late Etruscan black-figure vase production mainly dominated by the Micali Painter and his school ${ }^{246}$.

As a result of strong Attic influence, new vase shapes and ornaments and a novel scheme of decoration were introduced into this workshop-an influence which is not perceptible in the work of the late Pontic vase painters, who carried on in the old archaic fashion. However, to a certain extent, the same stylistic trends prevail in the early works of the Micali Painters ${ }^{247}$ and in the later works of the Tityos Painter; for example, the turbulent effect is evident in both. The two workshops also use a number of identical details. Two different kinds of plants, one consisting of a long stem with small dot-shaped leaves, the other of a smaller stem with a single, large, heart-shaped leafboth often used by the Tityos Painter (cf. p. 22)—are also seen in several works by the Micali Painter. The elaborate lotuspalmette frieze, seen on one of the Micali Painter's main works,
the amphora Br. Mus. B $64^{248}$, recalls those of the Paris and the Tityos Painter. The hair style with a separate fringe seen, for instance, on an amphora in the Danish National Museum ${ }^{249}$ is very much the same as on the oinochoe Bibl. Nat. 178 (cat. no. 43). Sirens with human arms, as on the Vienna amphora (cat. no. 46), are also seen, for instance, on Munich 845 by the Micali Painter ${ }^{250}$. The incisions on the birds and the wings of other animals, so characteristic of the Micali Painter, recall those of the Bibl. Nat. 178 Painter. The Micali Painter's felines have the same sturdy legs as those drawn by the Tityos Painter.

Nonetheless, all these similarities are traits which can also be found in other Etruscan groups of monuments from the same time, and must be regarded as generally common to Etruscan art in the last quarter of the 6th century B.C., rather than specific to these two vase-schools. It is true, as stated by Beazley, that the Micali Painter's workshop succeeded the Pontic ${ }^{251}$, but it did not develop out of it, and the Micali Painter was hardly trained in the Pontic workshop before starting his own. The style created by the Paris Painter, which we call Pontic, died out with the last works of the Tityos Painter, the Bibl. Nat. 178 Painter, and their apprentices. However, it is possible that the Bibl. Nat. 178 Painter outlived the Pontic tradition and adapted himself to the new style and scheme of decoration evolved by the Micali Painter. A hydria in the Villa Giulia inv. no. 15538 ${ }^{252}$, which to Beazley ${ }^{253}$ recalls a little the masterpiece Berlin F $2154^{254}$, could be a late work by this painter. Identical features in his works (see p. 31 ff .) and the hydria are: the drawing of the knees and the ears, the boots of the winged demons, the way in which the women lift up their dresses, and to a certain extent the rendering of the hair. Also the stiff poses of the figures and their gestures are very similar in the two vases. Nonetheless, for the time being, this possibility remains very hypothetical.

It has often been stated that Pontic vases were in some way influenced by the Caeretan hydriai ${ }^{255}$. As I formerly stressed ${ }^{256}$, this does not apply to the Paris Painter, whose career started earlier than that of the painters of the hydriai. In his book on the Caeretan hydriai ${ }^{257}$ Hemelrijk gives a list of the similarities between the hydriai and the Pontic vases and it appears that they nearly all concern Dohrn's Tityos Painter (including works
which can now be attributed to the Silen Painter and the Painter of Bibl. Nat. 178). Of the details not enumerated by Hemelrijk which the Tityos Painter could have borrowed from the hydriai can be mentioned first the arming of Heracles with a bow in one hand and a club in the other, as seen on Vatican $229^{258}$ and Louvre, Campana $19227^{259}$. Secondly there is the painter's characteristic drawing of the club, on Bibl. Nat. 173 (cat. no. 25) and the Nessos plate (cat. no. 32), which looks like a simplified version of the hero's club on Vatican $2299^{260}$. Although many of the details which have been enumerated as linking the Pontic vases with the Caeretan hydriai are also seen in other Etruscan groups of monuments from the same period, it is probably reasonable to assume that at least the Tityos Painter was directly inspired by the hydriai.

The Pontic workshop has even less in common with the contemporary La Tolfa group ${ }^{261}$. Only in a few details can points of resemblance be seen. For example, the long concave facial profile, the drawing of the ear, and the fringe of hair of the Painter of Bibl. Nat. 178 are reminiscent of the La Tolfa group. The B-side of Louvre E 703 (cat. no. 49) shows a dinos, the shape of which is very similar to a dinos of the La Tolfa group in the Villa Giulia ${ }^{262}$. But these similarities are far too few to indicate any direct contact between the two workshops.

A still debated question is the relation between the Pontic workshop and the painted tombs of Tarquinia. In my paper on the Paris Painter, I stated that his work revealed clear stylistic connections with Etruscan monumental painting ${ }^{263}$. This applies to a still larger extent to his followers. As most of these connecting features have been commented upon earlier, I shall confine myself to a few of them.

The lion with the cusped mane, which is used quite often by the Painter of Bibl. Nat. 178 and the Silen Painter, is very common in the tombs; it is, for instance, seen in the Tomba dei Tori and tomb $3698^{264}$. Animals with differently coloured legs, as used by the Amphiaraos and the Tityos Painter, are seen in several tombs ${ }^{265}$; the bristling hair on, for instance, the lions on Munich 920 (cat. no. 63) recalls that on the lions in tomb $3698^{266}$. The horse on Bibl. Nat. 178 (cat. no. 43) is very similar to the horses on a painted terracotta urn in the Tarquinia museum ${ }^{267}$.

In the ornamental friezes of the tombs there are also traits recalling the Pontic vases; the lotus-palmette frieze below the figure frieze in the Tomba delle Leonesse ${ }^{268}$, for example, is rather similar to that on Würzburg 780 (cat. no. 45) and the palmette frieze on a painted terracotta plaque in Berkeley recalls Munich 920 (cat. no. 63) and Brussels R 223 (cat. no. 57) ${ }^{269}$. However, the monumental painting generally lacks the great number of ornamental friezes characterizing the Pontic vases. On the other hand, the use of single plants in the figure friezes is as common in the tombs as on the vases, and very often the plants are of a very similar appearance; even the rather unusual specimen between the legs of the foremost warrior on the B-side of Louvre E 703 (cat. no. 49) has exact counterparts in the hunting scene on one of the gables of the Tomba della Caccia e Pesca ${ }^{270}$.

In the human figures, too, many details recall the Pontic vases ${ }^{271}$, and just as the Paris Painter's figure style reminds one of that of the painted terracotta plaques from Cervete$\mathrm{ri}^{272}$, so the Tityos Painter's style recalls, for instance, the Tomba delle Leonesse with its heavy, powerful figures ${ }^{273}$. Dohrn was even inclined to consider the painter of the Tomba degli Auguri as the master of the Tityos Painter ${ }^{274}$.

A variation of this theory has been presented by A. Giuliano ${ }^{275}$, who considers the links between the Tomba dei Tori and the vase school of Vulci ${ }^{276}$ to be so close that the tomb could have been painted by one of the vase painters from this school.

However, Banti, in her important article on the Tomba dei Tori, has demonstrated that practically all of the many details seen both in the tomb paintings and in the Pontic vases are features not specific to these two groups of monuments but to Etruscan art in general from the last decades of the 6th century B.C. In fact, she asserts that there is only one detail characteristic of the Tomba dei Tori and the Tityos Painter alone: the strange type of wing which looks as if it has been cut through ${ }^{277}$.

Giuliano brings up no new important arguments for a specific relationship between the Pontic workshop and the Tomba dei Tori. He is inclined to think that the reason why it is impossible to attribute the Tomba dei Tori to a specific vase painter is that the classification of the painters of Etruscan blackfigure is
still very tentative. As far as the Pontic workshop is concerned, I am convinced that this is because none of its painters actually came to Tarquinia and painted the Tomba dei Tori. It is impossible to recognize the specific style of any of the Pontic vase painters in this tomb. Closer to their style are, in my opinion, tomb $3698^{278}$ and the Tomba dei Tritoni ${ }^{279}$, but I should hesitate to attribute even these to any of the Pontic vase painters.

## Place of origin

In my paper on the Paris Painter it was stated that his style seems to be most closely connected with South Etruscan art, but that this might be due to the fact that rather few monuments from this period have been preserved from Vulci ${ }^{280}$. It was also pointed out that there were connections between the later Pontic vase painters and the Vulcian bronzes. Dohrn has already observed that the lyre motif so popular with the Silen Painter (cf. p. 38) is very common in the tripods ${ }^{281}$. The unusual Medusa with halteres on the Reading amphora (cat. no. 30) is also seen on the tripod Fr. 767 in Berlin ${ }^{282}$, and a figure such as the running woman on the tripod British Museum $539^{283}$ who is very similar to, for instance, Leto on Brussels R 223 (cat. no. 57), reveals a relationship in figure style. However, the works of both the Paris Painter himself and his followers, show no specific relationship with Vulcian works ${ }^{284}$, and they are also linked to many monuments from South Etruria both stylistically and thematically. For example, there is a close connection between them and the Red Ware pithoi and braziers found almost exclusively in Cerveteri ${ }^{285}$, both in the individual figures and animals and in subjects such as the two unusual mythological representations of the Pholos and the Tityos myth (cf. p. 25 and p. 28). Moreover, many of the ornamental friezes are also seen on terracotta friezes from this area ${ }^{286}$.

To assign the place of origin of the Pontic vases purely on the basis of stylistic considerations is impossible-connections can be found with works from both South and Central Etruria. Apparently Akerström ${ }^{287}$ did not take this fact into consideration when he tried to assign the Pontic workshop to Cerveteri just because the Amphiaraos scene on Munich 838 (cat. no. 1) has a stylistic resemblance to a terracotta frieze from Cerveteri ${ }^{288}$.

Regarding the finding place, as already mentioned ${ }^{289}$, the later Pontic vases differ from those of the Paris Painter's in that the overwhelming majority come from Vulci. It is of special importance that a large number of very mediocre vases have come to light here ${ }^{290}$.

In his publication of the oinochoe in Hamburg (cat. no. 103), Hoffmann concludes that the fact that the handle of this oinochoe imitates that of a group of bronze oinochoai ${ }^{291}$ gives important support to locatizing the Pontic workshop to Vulci. When the finding place of these bronze oinochoai is known, it is usually Vulci; more rarely, it is Orvieto or Southern Etruria. However, their Vulcian origin is not unanimously accepted, and Brown ${ }^{292}$ is inclined to consider Cerveteri a possibility.

The shape of the olpe by the Silen Painter in the Ashmolean Museum (cat. no. 59) may also support a Vulcian origin of the Pontic vases as it is copied from a bucchero shape (see p. 47) that seems only to be seen in Vulci ${ }^{293}$.

Localizing the Pontic workshop to Vulci implies, as I have already pointed out, the conclusion that to some extent the same stylistic tendencies prevailed in Vulci and in Cerveteri, a connection which is further strengthened by the use of the same motifs even so specific as the Tityos Painter's representation of the Pholos and the Tityos myths. We must, then, conclude that there was quite lively artistic interaction between the two cities in the second half of the 6th century B.C.

## Catalogue

(A question mark before a sale's catalogue or the like indicates that the present whereabouts of the vase are unknown to the writer. A question mark before the type of vase indicates that the finding-place is unknown.)

## The Amphiaraos Painter

1. Munich, Die staatlichen Antikensammlungen no. 838.

Vulci (Coll. Candelori). Amphora. Height 38 cm .
Shoulder motif: A departure of Amphiaraos, B centauromachy.
Sieveking-Hackl Taf. 33 and Abb. 100-107.
Hampe-Simon Taf. 7. BJb 166, 1966, p. 122 Abb. 9-10 and p. 136 Abb. 26. JbZMusMainz 1967 Taf. 31,3, 32 and 30. Pls. 2-3.

Dohrn no. 134.
2. Munich, Die staatlichen Antikensammlungen no. 938.

Vulci (Coll. Candelori). Chalice. Height 14 cm .
Animal frieze.
Sieveking-Hackl Taf. 41 and Abb. 172.
3. Orvieto, Musei Faina.

Orvieto. Chalice. Height?
Animal frieze with Triton and hippocamp.
Dohrn no. 137 Taf. 4. EAA VII fig. 1123.
4. Orvieto, Musei Faina.

Orvieto. Chalice. Height?
Animal frieze.
Dohrn no. 140 Taf. 4.
5. Bonn, Akademisches Kunstmuseum inv. no. 506, 4-6.
? Fragments of a globular cup (?).
Triton and hippocamp.
Dohrn no. 138 Taf. 4. See also StEtr. 12, 1938, p. 287.
6. Rome, Villa Giulia.

Vulci (Necropoli dell'Osteria Tomb 177). Kyathos on stemmed foot. Height $15,8 \mathrm{~cm}$.
Animal frieze.
Pls. 4-5.
7. London, British Museum B 55
? Oinochoe. Height 26,6 cm.
Shoulder motif: animal frieze.
Ducati pl. 27 b. PP pl. 33. Pl. 6.
Dohrn no. 136.
8. Karlsruhe, Badisches Landesmuseum inv. no. B 2588.

La Tolfa. Oinochoe. Height 28 cm .
Shoulder motif: animal frieze.
CVA Karlsruhe 2 Taf. 54,1. Pl. 7.
Perhaps a work by an apprentice.
Dohrn no. 135.
9. Civitavecchia, Museo Nazionale inv. no. 1705.
? Oinochoe. Height $28,5 \mathrm{~cm}$ (to the rim).
Shoulder motif: Two standing men between two sitting men and two chariots.
StEtr. 14, 1940, p. 365 and Tav. XXVIII.
10. Rome, Villa Giulia.

Vulci (Necropoli dell'Osteria Tomb 177). Oinochoe.
Height $32,5 \mathrm{~cm}$.
Shoulder motif: animal frieze.
Pls. 8-9.
11. Munich, Die staatlichen Antikensammlungen inv. no. 1003.

Vulci (Coll. Candelori). Lydion. Height 9 cm .
Shoulder motif: animal frieze.
Sieveking-Hackl Taf. 41 and Abb. 202.
Dohrn no. 154.
12. Rome, Vatican, Albizzati no. 230.
? Amphora. Height $38,1 \mathrm{~cm}$.
Shoulder motif: A and B sirens.
Albizzati Tav. 21 and fig. 24.
Dohrn no. 131.
13. Munich, Die staatlichen Antikensammlungen inv. no. 992.
? Kylix. Height 9 cm . Diameter 13 cm .

Inside: a bird (swan?).
Sieveking-Hackl Taf. 44.
Dohrn no. 165.
14. Munich, Die staatlichen Antikensammlungen inv. no. 530. Vulci (Coll. Candelori). Kylix. Height 11 cm . Diameter 17 cm.

Inside: a griffin.
Sieveking-Hackl Taf. 18 and Abb. 66.
Dohrn no. 133c.
15. Basle, Antikenmuseum inv. no. Zü 209.
? (Coll. Züst). Amphora. Height 31,7 cm.
Shoulder motif: A: departure of Amphiaraos, B: fighting warriors.
Hampe-Simon Taf. 8-11. BJb 166, 1966, p. 115 ff. Abb. 1-8.
16. Civitavecchia, Museo Nazionale inv. no. 1290.
? Kylix. Height $11,3 \mathrm{~cm}$. Diameter $17,3 \mathrm{~cm}$.
Tondo: sphinx.
AM 1934 p. 114-115.
17. Basle, Antikenmuseum inv. no. Zü 388.
? Cup. Height $7,1 \mathrm{~cm}$.
Shoulder motif: animal frieze.
Pls. 10-11.

## Titoys Painter

18. Florence, Museo Archeologico inv. no. 3778.
? Oinochoe. Height 29 cm .
Shoulder motif: Heracles between two lions and two sphinxes.
JdI 1970 p. 40 Abb. 7.
Dohrn no. 110.
19. Florence, Museo Archeologico inv. no. 3779.
? Oinochoe. Height 29 cm .
Shoulder motif: Heracles between two lions and two sphinxes.
Ducati pl. 26.
Dohrn no. 111.
20. Munich, Die staatlichen Antikensammlungen no. 836 .

Vulci (Coll. Candelori). Amphora. Height 37 cm .
Shoulder motif: A: Heracles and the Hydra; B: two centaurs.
Sieveking-Hackl frontispiece, Taf. 33 and Abb. 96-98. Ducati pl. 24.
Dohrn no. 112.
21. Munich, Die staatlichen Antikensammtungen no. 937.

Vulci (Coll. Candelori). Chalice. Height 12 cm .
Animal frieze.
Sieveking-Hackl Taf. 41 and Abb 171.
Dohrn no. 113.
22. Munich, Die staatlichen Antikensammlungen no. 990.
? Egg-shaped cup-fragmentary.
Animal frieze.
Sieveking-Hackl Abb. 199.
Dohrn no. 114.
23. Munich, Die staatlichen Antikensammlungen no. 976.
? Kyathos. Height (without handle) $6,5 \mathrm{~cm}$.
Bird frieze.
Sieveking-Hackl Abb. 187.
Dohrn no. 159a.
24. ? (Münzen und Medaillen A. G. Auktion XVIII no. 140).
? Kyathos. Height.
Animal frieze.
Depicted in the auction catalogue.
25. Paris, Bibliothèque Nationale 173, inv. no. 3326.

Vulci (Coll. Durand). Amphora. Height 34 cm .
Shoulder motif: A: Heracles fighting a centaur; B: centaurs.
CVA Bibl. Nat. 1, III F pl. 28,6; 29,1; 30,1 and 4. Ducati pl. 22-23. Pls. 12-13.
Dohrn no. 104.
26. ? (Ars Antiqua A. G. Auktion I no. 129).
? Oinochoe. Height 29 cm .
Shoulder motif: Heracles and Pholos.
Depicted in the auction catalogue.
27. Rome, Villa Giulia.

Vulci. Plate. Height 11 cm .
Rams.
Pl. 14.
Exterior of plate:
foot: ring of rays.
stem: black.
bowl: ring of rays and black on the rim.
28. ? (Gallerie Heidi Vollmoeller, 1. Auktion 1975 Antike Kunst no. 100, formerly Hesperia Art, Bulletin L no. 11). ? Plate. Diameter $18,5 \mathrm{~cm}$.
Animal frieze.
Depicted in the auction catalogue.
29. Greifswald, Ernst-Moritz-Arndt-Universität no. 383.
? Kyathos on stemmed foot. Height $5,9 \mathrm{~cm}$ (fragmentary). Animal frieze (panthers).
A. Hundt-K. Peters, Greifswalder Antiken, 1961, no. 383 and Taf. 44.
29a. ? (Sotheby 4-5-1970 no. 110).
? Globular cup with horizontal handle. Height $8,9 \mathrm{~cm}$. Animal frieze.
Depicted in the auction catalogue.
30. Reading, University of Reading inv. no. 47.VI.I.
? Amphora. Height 34 cm .
Shoulder motif: A: Achilles and Troilos; B : Achilles carrying Troilos to the altar.
JHS 1951 pl. 43-44. CVA Reading 1, IV B pl. 36.
31. Copenhagen, Ny Carlsberg Glyptotek H146b.
? Plate. Height 12 cm . Diameter 20 cm .
Man with garlands.
Dansk Brugskunst 5-6, 1969, p. 141 fig. 11. Pl. 15.
32. Rome, Villa Giulia.

Vulci, Plate. Height 10 cm .
Heracles and Nessos.
Pl. 16.
Exterior of plate:
foot: ring of rays.
stem: black.
bowl: ring of rays and black on the rim.
33. Bonn, Akademisches Kunstmuseum inv. no. 507.
? Sherd (from amphora or oinochoe?). Height 14 cm .
Remnants of two figure friezes, one of them an amazonomachy?
StEtr. 12, 1938, p. 288 f. and Tav. LIV, 1. Pl. 17.
34. Boston, Museum of Fine Arts 60.115.
? (Clairmont Collection). Globular cup with horizontal handle.
Height $10,1 \mathrm{~cm}$.
Animal frieze.
Ancient Art in American Private Collections, 1954, no. 268 and pl. LXXX. Hermeneus, Tijdschrift voor de antieke cultuur 45 no. 5, 1973-74, p. 375 Afb. 10.
35. Paris, Bibliothèque Nationale 171.

Vulci? (Coll. Durand). Amphora. Height 32 cm .
Shoulder motif: A: the punishment of Tityos; B: Itys and Koronis?
The animal frieze probably by another painter.
CVA Bibl. Nat. 1, III F pl. 28,5; 29,3; 31,1-4. Ducati. pl. 18-20. Pls. 18-19.
Dohrn no. 103.
36. ? (Gallerie Heidi Vollmoeller, 1. Auktion 1975 Antike Kunst no. 99, formerly Hesperia Art, Bulletin L no. 12). ? Plate. Diameter $18,5 \mathrm{~cm}$.
Palmette frieze.
Depicted in the auction catalogue.
37. Erlangen, Universität Erlangen-Nürnberg inv. no. I 827. ? Oinochoe. Height 30 cm .
Shoulder motif: two chariots flanking two women.
AA 1904 p. 60 Abb. 1. W. Grünhagen, Antike Originalarbeiten in Erlangen, 1948, p. 61. Pl. 20-21a.
Dohrn no. 123.
38. Parma, Museo Nazionale di Antichita C 82a and C 82b.
? Two sherds from a patera (?).
Animal frieze.
CVA Parma 1, III F pl. 1 (Italia pl. 2001). Pl. 21b-c.
39. Bonn, Akademisches Kunstmuseum inv. no. 464,58.

Cerveteri? Kyathos on stemmed foot (?). Height $7,5 \mathrm{~cm}$.
(fragmentary).
Animal frieze.
Pl. 22a.
40. New York, Metropolitan Museum inv. no. 06.1021.46.

Orvieto. Globular cup with horizontal handle. Height? Man with ax and woman with bow.
G.M.A. Richter, Handbook of the Etruscan Collection, 1940, p. 39 and figs. 114-115.
Dohrn no. 108.
41. Stockholm, Medelhavsmuseet inv. no. MM 1961: 10.
? Oinochoe. Height 30 cm .
Shoulder motif: armed men coming from the left to meet a kneeling woman and 3 warriors.
Münzen und Medaillen A. G. Auktion XXII no. 193 pl. 63. Pls. 22b-23.
42. Basel, Antikenmuseum inv. no. Zü 210.
? Globular cup. Height $10,4 \mathrm{~cm}$.
Tritons and running women.
Pl. $24^{315}$.

Bibliothèque Nationale 178 Painter
43. Paris, Bibliothèque Nationale Cat. no. 178.

Vulci. Oinochoe. Height 28 cm .
Shoulder motif: Aphrodite leading Paris to Helena?
CVA Bibl. Nat. 1 III F pl. 27,5-7 and 28,2-3.
Dohrn no. 106.
44. Toronto, Royal Ontario Museum inv. no. 919.5.138 (C 312).

Vulci. Oinochoe. Height 29,8 cm.
Shoulder motif: dancing men and demon.
Robinson-Harcum-Iliffe, A Catalogue of Greek Vases in the Royal Ontario Museum, 1930, C 312 pl. 19 and drawing p. 72 .

Pl. 25.
Dohrn no. 105.
45. Würzburg, Martin von Wagner Museum inv. no. HA 16 (Langlotz 780).

Vulci (Coll. Feoli). Amphora. Height 36,4 cm.
Shoulder morit: A: man, demon, and woman; B: three men.
Langlotz p. 138 and Taf. 228. Pls. 26-27.
Dohrn no. 115.
46. Vienna, Kunsthistorisches Museum inv. no. IV 1127.
? Amphora. Height $38,5 \mathrm{~cm}$.
Shoulder motif: A: fighting warriors; B: meeting of two men, one with bow, the other with spear.
Endt. Abb. 23. Pls. 28-29.
Dohrn no. 121.
47. Munich, Die staatlichen Antikensammlungen inv. no. 984.

Vulci (Coll. Candelori). Globular cup. Height 10 cm .
Animal frieze.
Sieveking-Hackl Taf. 41 and Abb. 194.
Dohrn no. 122.

## Silen Painter

48. Würzburg, Martin von Wagner Museum, Langlotz no. 779 (inv. no. HA 24).
Vulci? (Coll. Feoli). Amphora. Height 38,6 cm.
Shoulder motif: A + B Silens.
Langlotz Taf. 227. PP pl. 17 and 30.
Dohrn no. 82.
49. Paris, Louvre E 703.
? Amphora. Height 38 cm .
Shoulder motif: A: Achilles pursuing Troilos; B: death of Polyxena?
Ducati pl. 9b. Jacobsthal, Ornamente Taf. 10c. PP pl. 29. Dohrn no. 74.
50. Munich, Die staatlichen Antikensammlungen no. 840.
? Amphora, fragmentary.
Shoulder motif: A: Dionysos and silens; B: two centaurs. Sieveking-Hackl Abb. 110 and 111.
Now missing.
Dohrn no. 77.
51. Munich, Die staatlichen Antikensammlungen no. 841.
? Amphora. Height $34,5 \mathrm{~cm}$.

Shoulder motif: A: fighting warriors; B : silens.
Sieveking-Hackl Abb. 112-115.
Now missing.
Dohrn no. 76.
52. Munich, Die staatlichen Antikensammlungen no. 924.
? Oinochoe. Height $29,5 \mathrm{~cm}$.
Shoulder motif: Dionysos and dancing silens and maenads.
Now missing.
Dohrn no. 78.
53. Bonn, Akademisches Kunstmuseum inv. no. 1587.
? Oinochoe. Height 32 cm .
Shoulder motif: dancing silens and maenads.
Ducati pl. 17b. $P P$ pl. 26.
Dohrn no. 79.
54. Munich, Die staatlichen Antikensammlungen no. 952.
? Chalice, fragmentary.
Banquet scene and dancing silens.
Sieveking-Hackl Abb. 176.
Now missing.
Dohrn no. 148.
55. Munich, Die staatlichen Antikensammlungen no. 839.
? Amphora. Height $34,5 \mathrm{~cm}$.
Shoulder motif: A hunting scene. B comasts.
Sieveking-Hackl Taf. 34 and Abb. 108-109.
Now missing.
Dohrn no. 75.
56. Oxford, Ashmolean Museum Loan 176.
? Oinochoe.
Shoulder motif: dancers.
To be published by Dr. C. M. Stibbe in 1977.
57. Brussels, Musée Royaux d'Art et d'Histoire inv. no. R 223.

Cerveteri. Amphora. Height 34 cm .
Shoulder motif: A: The punishment of Tityos. B: Horsemen and demon.
CVA Brussels 3 IV B Pl. 1,4. PP pl. 31 and 32.
Ducati Pl. 21.
Dohrn no. 86.
58. London, Victoria and Albert Museum inv. no. 4798-1901.
? Dinos. Height $22,5 \mathrm{~cm}$.
Animal frieze.
Ducati pl. 17a. Pls. 30-31.
Dohrn no. 99.
59. Oxford, Ashmolean Museum inv. no. 1961.467.
? Olpe. Height 19,7 cm.
Animal frieze.
Archaeological Reports for $1963-64$ p. 56 fig. 14. Pl. 32.
60. Munich, Die staatlichen Antikensammlungen no. 923.
? Oinochoe. Height 32 cm .
Shoulder motif: Meander composition.
Sieveking-Hackl Abb. 160-163. Pl. 33.
Dohrn no. 86a.
61. Basel, Antikenmuseum inv. no. Zü 211.
? Oinochoe. Height 27 cm .
Shoulder motif: Banquet scene.
Pl. 34.
62. Innsbruck, Archäologisches Institut der Universität inv. no. II 12 (1) and II 12 (2).
? Kyathos, fragmentary.
Animal frieze.
Pl. 35a.
63. Munich, Die staatlichen Antikensammlungen no. 920.

Vulci (Coll. Candelori). Oinochoe. Height 27 cm .
Shoulder motif: Man between lions and two running women.
Sieveking-Hackl Taf. 33 and Abb. 153. Pl.
Dohrn no. 109.
64. London, British Museum B 56.
? Oinochoe. Height $27,9 \mathrm{~cm}$.
Shoulder motif: Man between panther and lion.
Ducati pl. 27a. Pl. 35b-36.
Dohrn no. 100.
65. Bonn, Akademisches Kunstmuseum inv. no. 464,45/46.

Cerveteri. Sherds from the shoulder of an oinochoe or amphora.

Banquet scenes.
StEtr. 12, 1938, Tav. LIV,2.
Now missing. Probably from the same oinochoe as Greifswald 382 (cat. no. 67).
66. Munich, Die staatlichen Antikensammlungen no. 922.

Vulci (Coll. Candelori). Oinochoe. Height 32 cm .
Shoulder motif: demon between sirens.
Sieveking-Hackl Taf. 33 and Abb. 159. Pls. 38-39.
Dohrn no. 116.
67. Greifswald, Ernst-Moritz-Arndt Universität no. 382.
? Lower part of amphora or oinochoe.
Animal frieze.
A. Hundt-K. Peters, Greifswalder Antiken, 1961, no. 382. Tafel 44.
68. Bonn, Akademisches Kunstmuseum inv. no. 464,70/71/75.

Cerveteri. Oinochoe, fragmentary.
Shoulder motif: Banquet.
StEtr. 12, 1938, Tav. LIV,4 and LV,1. Pl. 37.
69. Oxford, Ashmolean Museum inv. no. 1971.911.
? Amphora. Height $35,3 \mathrm{~cm}$.
Shoulder motif: A: Heracles and centaur; B : chariot.
Sotheby 1-7-69 no. 224 with photo.
To be published by Dr. C. M. Stibbe in 1977.
70. Bonn, Akademisches Kunstmuseum inv. no. 464,44.

Cerveteri. Fragment probably of amphora or oinochoe.
Warrior and woman.
StEtr. 12, 1938, Tav. LIV,3.

Vases not attributed to any of the above-mentioned painters
This does not imply that none of them were made by any of these painters. It applies to many of them that their decoration is too sparse to make any master attribution certain (cf. Paris Painter p. 13), others could be very early pieces in which a painter's style is not yet recognizable. At the same time some of them were definitely decorated by other painters-often of very small talents. I have tried to made this catalogue as complete as possible but I am aware that it is probably far from so.
71. Munich, Die staatlichen Antikensammlungen 971.
? Kyathos on stemmed foot. Height 15 cm .
Running dogs and bird.
Sieveking-Hackl Taf. 42 and Abb. 182.
Dohrn no. 67. For his attribution to the Paris Painter see PP p. 13.
72. Munich, Die staatlichen Antikensammlungen 972.
? Kyathos on stemmed foot, fragmentary.
Sea Monsters.
Sieveking-Hackl Abb. 183.
Missed by Dohrn in his catalogue. Probably by the same painter as Munich 971 (cf. the birds).
Now missing.
73. Szczecin, National Museum (?).
? ("Olbia" cf. Dohrn p. 147). Plate.
Lion's head.
Boehlau, Griechische Altertümer südrussischen Fundorts aus dem Besitze des Herrn A. Vogell, Karlsruhe, 1908, p. 9 no. 51 Taf. 1,17.

Dohrn no. 87.
74. Munich, Die staatlichen Antikensammlungen 941.
? Chalice. Height 15 cm .
Lotus-palmette frieze.
Sieveking-Hackl Taf. 41.
Dohrn no. 92. The lotus-palmette frieze is related both to works of the Silen Painter (Bonn 1587 (cat. no. 53)) and of the Tityos Painter (the Erlangen oinochoe (cat. no. 37)).
75. Berlin, Staatlichen Museen Antiken-Abteilung Charlottenburg inv. no. F 1678.
Tarquinia (Coll. Doria). Lydion. Height 12 cm .
Ornamental friezes.
AM 1920 Taf. V,3. Pl. $44 a$.
Dohrn no. 94. For his attribution to the Paris Painter see PP p. 13 (wrongly named F 1687).
76. Toronto, Royal Ontario Museum 210 (C 656).
? Lydion. Height $11,4 \mathrm{~cm}$.
Band of tongues, net pattern, and frieze of lotus and lotus buds.

Robinson-Harcum-Iliffe pl. 15.
Dohrn no. 95. For his attribution to the Paris Painter see PP p. 13.
77. Würzburg, Martin von Wagner Museum, Langlotz no. 790. ? Phiale. Diameter $13,5 \mathrm{~cm}$.
Ornamental friezes.
Langlotz Taf. 229.
Dohrn no. 96. For his attribution to the Paris Painter see PP p. 13.
Its lotus and lotus buds are related to those of the Silen Painter.
78. Würzburg, Martin von Wagner Museum, Langlotz no. 787. Vulci (Coll. Feoli). Kyathos on stemmed foot. Height $14,4 \mathrm{~cm}$.
Dolphins.
Langlotz Taf. 229. Endt Abb. 33.
Dohrn no. 97. For his attribution to the Paris Painter see PP p. 13.
79. Bonn, Akademisches Kunstmuseum inv. no. 564.
? Plate.
Frieze of lotus and lotus buds.
Pl. 40 b.
Dohrn no. 98. For his attribution to the Paris Painter see PP p. 13.
80. Munich, Die staatlichen Antikensammlungen 986.

Vulci (Coll. Candelori). Globular cup with horizontal handle. Height 9,5 cm.
Deer.
Sieveking-Hackl Taf. 41 and Abb. 196.
Dohrn no. 101. The band of heart-shaped flowers recalls works of the Tityos Painter.
81. Paris, Bibliothèque Nationale 183.

Nola? (Coll. Oppermann). Lydion. Height 13 cm .
Animal frieze.
CVA Bibl. Nat. 1, III F, pl. 27,2-3. Pl. 42.
Dohrn no. 117.
Probably by the same painter as Munich 945-948 (cat. nos. 82-85) although the drawing is neater.
82. Munich, Die staatlichen Antikensammlungen 945.

Vulci (Coll. Candelori). Chalice. Height $13,5 \mathrm{~cm}$.
Animal frieze.
Sieveking-Hackl Taf. 41.
Dohrn no. 144. Same painter as Bibl. Nat. 183 (cat. no. 81) and Munich 946-948 (cat. nos. 83-85).

Now missing.
83. Munich, Die staatlichen Antikensammlungen 946.

Vulci (Coll. Candelori). Chalice. Height 15 cm .
Animal frieze.
Sieveking-Hackl Taf. 41.
Dohrn no. 145. Same painter as Bibl. Nat. 183 (cat. no. 81) and Munich 945 and 947-948 (cat. nos. 82 and 84-85).
84. Munich, Die staatlichen Antikensammlungen 947.

Vulci (Coll. Candelori). Chalice. Height 16 cm .
Animal frieze.
Sieveking-Hackl Taf. 41.
Dohrn no. 146. Same painter as Bibl. Nat. 183 (cat. no. 81) and Munich $945-946$ and 948 (cat. nos. $82-83$ and 85). Now missing.
85. Munich, Die staatlichen Antikensammlungen 948.

Vulci (Coll. Candelori). Chalice. Height $14,5 \mathrm{~cm}$.
Animal frieze.
Sieveking-Hackl Taf. 41 and Abb. 175.
Dohrn no. 147. Same painter as Bibl. Nat. 183 (cat. no. 81) and Munich 945-947 (cat. nos. 82-84).

Now missing.
I cannot agree with Dohrn in supposing that his nos. 14143 are also by this painter, and I do not consider these three vases Munich 921, 973, and Louvre CA 1870 Pontic (cf. p. 81).
86. Munich, Die staatlichen Antikensammlungen 944.

Vulci (Coll. Candelori). Chalice. Height 16 cm .
Animal frieze.
Sieveking-Hackl Taf. 41.
Missed by Dohrn in his catalogue.
87. Munich, Die staatlichen Antikensammlungen 988.

Vulci (Coll. Candelori). Globular cup with horizontal handle. Height 11 cm .
Bird friezes.
Sieveking-Hackl Taf. 41.
Dohrn no. 150.
88. Würzburg, Martin von Wagner Museum, Langlotz 788.

Vulci? (Coll. Feoli). Kantharos. Height $6,5 \mathrm{~cm}$.
Animals.
Langlotz Taf. 229.
Dohrn no. 151. Dohrn wrongly assumed that this vase is by the same hand as Munich 988 (cat. no. 87).
89. Würzburg, Martin von Wagner Museum inv. no. HA 261 (Langlotz 784).
Vulci (Coll. Feoli). Oinochoe. Height 16,6 cm.
Shoulder motif: Man's head and birds.
Langlotz Taf. 229.
Dohrn no. 125. Related to works of the Amphiaraos Painter (for instance the drawing of the man's ear recalls some of the charioteers and one of the sphinxes on Munich 838 (cat. no. 1)).
90. Würzburg, Martin von Wagner Museum, Langlotz no. 783. Vulci (Coll. Feoli). Oinochoe. Height 17 cm .
Shoulder motif: ring of rays.
Langlotz Taf. 229.
Dohrn no. 126. Probably by the same hand as Würzburg 784 (cat. no. 89).
91. Berlin, Staatliche Museen Antiken-Abteilung Charlottenburg F 1679.
? Stand. Height 15 cm .
Walking women.
Endt Abb. 41. Pl. 41.
Dohrn no. 124. By the same hand as Amsterdam 8761 (cat. no. 92) and Munich 921a (cat. no. 93).
92. Amsterdam, Allard Pierson Museum inv. no. 8761.
? Oinochoe. Height $24,5 \mathrm{~cm}$.
Shoulder motif: running men and woman.
Anja Drukker, Eeen pontische oinochoe in het Allard

Pierson Museum, Vereniging van Vrienden van het Allard Pierson Museum Mededelingenblad no. 7, 1973.
By the same hand as Berlin F 1679 (cat. no. 91) and Munich 921a (cat. no. 93).
93. Munich, Die staatlichen Antikensammlungen 921a.
? Oinochoe. Height 30 cm .
Shoulder motif: Animal frieze.
Sieveking-Hackl Abb. 157-158.
Dohrn no. 152. By the same hand as Berlin F 1679 (cat. no. 91) and Amsterdam 8761 (cat. no. 92). As Miss Drukker has pointed out the figure style of these three vases are related to that of the Painter of Bibl. Nat. 178.
94. Munich, Die staatlichen Antikensammlungen 985.

Vulci (Coll. Candelori). Globular cup with horizontal handle. Height 10 cm .
Silen and two centaurs.
Sieveking-Hackl Taf. 41 and Abb. 195.
Dohrn no. 127. Now missing. By Brown (op. cit. p. 78
note 1) connected with works both of the Painter of Bibl.
Nat. 178 and of the Silen Painter, all of which he considers to be by the same hand.
95. Munich, Die staatlichen Antikensammlungen 989.

Vulci (Coll. Candelori). Globular cup with one horizontal and one vertical handle. Height 18 cm .
Banquet scene.
Sieveking-Hackl Taf. 42 and Abb. 198.
Dohrn no. 149. By the same hand as Würzburg 4881 (cat. no. 96). They are both closely related to works of the Silen Painter and may be by this painter.
96. Würzburg, Martin von Wagner Museum inv. no. 4881.
? Chalice. Height 15,8-15,4 cm.
Dancers.
Antike Kunstwerke aus dem Martin von Wagner Museum, Erwerbungen 1945-1961, 1962, no. 49 Tafel 34.
By the same hand as Munich 989 (cat. no. 95)-both being closely related to works of the Silen Painter and probably by him. In the above-mentioned publication the dancers are compared with those on the neck of Würzburg 780
(cat. no. 45), but this likeness as far as I can see only goes for the unusual loin-cloth worn by some of the dancers on both vases.
97. Munich, Die staatlichen Antikensammlungen 919. Vulci (Coll. Candelori). Oinochoe. Height 24 cm .
Shoulder motif: Animal frieze.
Sieveking-Hackl Abb. 153. Endt Abb. 26.
Dohrn no. 153. By the same hand as the Missouri chalice (cat. no. 98).
98. Columbia, University of Missouri, Museum of Art and Archaeology inv. no. U. Mo. 60.10.
? Chalice. Height 14 cm .
Animal frieze.
R. D. DePuma, Etruscan and Villanovan Pottery, 1971, no. 48. Pl.43. By the same hand as Munich 919 (cat. no. 97), with which also DePuma has compared it.
99. New York, Joseph V. Noble Coll.
? Kantharos. Height $14,3 \mathrm{~cm}$.
Birds flanking a palmette-lotus cross.
D. von Bothmer, Ancient Art from New York Private Collection, 1961, no. 260 pl. 97.
100. Boston, Museum of Fine Arts inv. no. 63.2404.
? Oinochoe. Height $27,5 \mathrm{~cm}$.
Shoulder motif: Sirens and birds.
C. C. Vermeule, Vases and Terracottas in Boston: Recent Acquisitions, Classical Journal 1968, p. 52 f.
101. Heidelberg, Archaäologisches Institut der Universität inv. no. 69/1.
? Plate. Diameter 20,9 cm.
Tondo: Winged garland or ring (?).
R. Hampe, Neuerwerbungen 1957-70 (Katalog der Sammlung Antiker Kleinkunst des archäologischen Instituts der Universität Heidelberg II), 1971, no. 69 Taf. 45.
102. Gotha, Schlossmuseum inv. no. Ahv. 296.

Vulci. Kylix. Height $10,3 \mathrm{~cm}$., diameter $14,7 \mathrm{~cm}$.
Tondo: cock.
CVA Gotha 1 p. 31 and Taf. 19.

The two heads on the outside between the handles are probably both a man's head, not as E. Rohde suggests a man's and a woman's head.
103. Hamburg, Museum für Kunst und Gewerbe inv. no. 1970,105.
? Oinochoe. Height 27 cm .
Shoulder motif: meander composition.
H. Hoffmann, Erwerbungen für die Antikenabteilung in den Jahren 1963 bis 1970 (Museum für Kunst und Gewerbe), Jahrbuch der Hamburger Kunstsammlungen 16, 1971, p. 218 ff.
Related to works of the Silen Painter, but not by his own hand. The decoration recalls that of Munich 923 (cat. no. 60). The small panel on the spout is a unique trait. For the handle see p. 47.
104. Bonn, Akademisches Kunstmuseum inv. no. 464,35.

Cerveteri. Upper part of an oinochoe.
Shoulder motif: only the heads of two men are left.
StEtr. 12, 1938, p. 288.
105. Bonn, Akademisches Kunstmuseum inv. no. 464,67. Cerveteri. Fragment of a chalice.
Siren.
StEtr. 12, 1938, p. 287-88 and Tav. LIV,3.
106. Bonn, Akademisches Kunstmuseum inv. no. 464,60.

Cerveteri. Fragment, probably of a globular cup.
Palmette frieze.
StEtr. 12, 1938 p. 288 and Tav. LIV, 3 right.
107. Bonn, Akademisches Kunstmuseum inv. no. 25.
? Chalice. Height $16,6 \mathrm{~cm}$.
Animal frieze.
StEtr. 12, 1938, p. 288. Pl. 44 a.
108. Bonn, Akademisches Kunstmuseum inv. no. 566 .
? Lydion.
Frieze of birds.
StEtr. 12, 1938, p. 288. Pl. $44 b$.
109. Rome, Villa Giulia.

Vulci, Necropoli dell’Osteria tomba 177. Chalice. Height $16,3 \mathrm{~cm}$.

Lotus-palmette frieze.
Pl. 46 .
110. Rome, Villa Giulia.

Vulci, Necropoli dell'Osteria tomba 117. Chalice. Height 12 cm .
Lions.
Pl. $45 a$.
111. Rome, Villa Giulia.

Vulci, Necropoli dell'Osteria tomba 177. Chalice. Height $11,2 \mathrm{~cm}$.
Frieze of birds.
Pl. $45 b$.
112. ? (Münzen und Medaillen A. G. Kunstwerke der Antike Auktion XXII, 1961, no. 194).
? Plate. Diameter $22,7 \mathrm{~cm}$.
Birds and lotus-palmette frieze.
Depicted in the auction catalogue.
113. Cortona, Museo dell’Accademia Etrusca, sala XIV.
? Lydion. Height?
Procession of walking men.
Unpublished.
Neck: frieze of lying lotus blossoms.
Shoulder: ornamental frieze related to the frieze on the neck of Toronto 919.5.138 (cat. no. 44).
Belly: walking men, some of them carrying branches and stretching forward the other arm. Between them large flowers.
Foot: ring of rays.
114. Munich, Die staatlichen Antikensammlungen no. 987.

Vulci (Coll. Candelori). Globular cup with horizontal handle. Height 11 cm .
Animal frieze.
Sieveking-Hackl Taf. 41 and Abb. 197.
115. ? (formerly Coll. Disney).
? Oinochoe. Height ?
Shoulder motif: three men coming from the left meet a woman and two men coming from the right.

Museum Disneianum pl. 103-104.
Dohrn no. 107. From the drawings in Museum Disneianum I find it difficult to attribute it to any of the above-mentioned painters. Some of the figures have a certain resemblance to those of the Silen Painter. An interpretation of the figure scene is not easy. The woman may be a goddess.
116. Munich, Die staatlichen Antikensammlungen no. 1009.

Vulci (Coll. Candelori). Plate. Diameter 20 cm .
Animal frieze.
Sieveking-Hackl Taf. 44.
Dohrn no. 118. The ornament frieze on the rim recalls that on Munich 922 (cat. no. 66) by the Silen Painter.
117. Munich, Die staatlichen Antikensammlungen no. 1010.

Vulci (Coll. Candelori). Plate. Diameter 20 cm .
Animal frieze.
Sieveking-Hackl Taf. 44.
Dohrn no. 119. Pendant to Munich 1009 (cat. no. 116) and by the same hand.
118. Würzburg, Martin von Wagner Museum, Langlotz no. 781.

Vulci (Coll. Feoli). Kyathos on stemmed foot. Height 14,8 cm.

Floral friezes.
Langlotz Taf. 229.
Dohrn no. 128. The floral friezes seem to be related to those of Berlin F 1673 (cat. no. 119).
119. Berlin, Staatliche Museum zu Berlin F 1673.

Vulci (Coll. Doria). Amphora. Height $33,5 \mathrm{~cm}$.
Shoulder motif: A and B sirens.
Endt Abb. 16-17.
Dohrn no. 130. Could be a work by the Amphiaraos Painter.
120. Würzburg, Martin von Wagner Museum Langlotz no. 782. Vulci (Coll. Feoli). Chalice on stemmed foot (unusual shape). Height 10 cm .
Floral frieze.
Langlotz Taf. 229
Dohrn no. 128. The floral frieze is related to that of the San Francisco chalice (cat. no. 121). Both recall works of the Silen Painter.
121. San Francisco, M. H. de Young Memorial Museum inv. no. 4155.
? Chalice. Height $11,8 \mathrm{~cm}$.
Floral frieze.
CVA San Francisco Collections (USA fasc. 10) IVB p. 22 and pl. III,4. Related to Würzburg 782 (cat. no. 120).
122. Berlin, Staatliche Museen Antiken-Abteilung Charlottenburg inv. no. F 1677.
Vulci (Coll. Doria). Lydion. Height 10 cm .
Bird frieze.
Endt Abb. 27.
Dohrn no. 155.
123. Toronto, Royal Ontario Museum 211 (C 657).
? Lydion. Height $7,6 \mathrm{~cm}$.
Bird frieze.
Robinson-Harcum-Iliffe drawing on p. 70 and pl. XV. Dohrn no. 156.
124. London, British Museum inv. no. 1926,6-28,1.
? Oinochoe. Height 30 cm .
Shoulder motif: comasts.
British Museum Quarterly 1-2, 1926-28, p. 66 ff . and pl. XXXVIIa.
Pl. 47.
Dohrn no. 120. Related to works of the Painter of Bibl. Nat. 178, but probably not by his own hand (cf. p. 32).
125. Paris, Louvre CA 3457.
? Oinochoe. Height 30 cm .
Shoulder motif: 4 men with horses.
Revue des Arts 5-6, 1955-56, p. 49 fig. 16. Pl. 50a.
As Villard has pointed out by the same painter as Louvre CA 3458 (cat. no. 126), but not by the same hand as Br . Mus. 1926,6-28,1 (cat. no. 124).
126. Paris, Louvre CA 3458.
? Oinochoe. Height 31 cm .
Shoulder motif: 6 men with shields.
Revue des Arts $5-6,1955-56$, p. 49 fig. 17. Pl. 50b. See cat. no. 125.
127. Munich, Die staatlichen Antikensammlungen no. 1006.

Vulci (Coll. Candelori). Plate. Diameter 22 cm .
Ornamental friezes and birds.
Sieveking-Hackl Taf. 44.
Dohrn no. 160.
128. Munich, Die staatlichen Antikensammlungen no. 1007.
? Plate, fragmentary.
Frieze of birds.
Sieveking-Hackl p. 155.
Dohrn no. 161.
129. Munich, Die staatlichen Antikensammlungen no. 1008.
? Plate, fragmentary.
Bird.
Sieveking-Hackl p. 155.
Dohrn no. 162.
130. Munich, Die staatlichen Antikensammlungen no. 942.
? Chalice. Height 16 cm .
Seated woman under a canopy (?) flanked by 4 standing on each side.
Sieveking-Hackl Taf. 41 and Abb. 173-4.
Dohrn no. 164. Recalls the Disney oinochoe (cat. no. 115) and works of the Silen Painter, by whom it may have been painted.
131. Rome, Vatican G87.
? Plate. Diameter 20,5 cm.
Sirens.
RG p. 75 and Tav. 27.
Could be a work by the Amphiaraos Painter. By Beazley related to Vatican 230 (cat. no. 12), Munich 838 (cat. no. 1), and Berlin F 1673 (cat. no. 119).
132. Rome, Vatican G88.
? Lydion. Height $10,9 \mathrm{~cm}$.
Lotus-palmette friezes.
RG. p. 75 and Tav. 27.
133. Berlin, Staatlichen Museen Antiken-Abteilung Charlottenburg inv. no. 31427.
? Chalice. Height 12 cm .
Lotus frieze.

Gehrig-Greifenhagen-Kunisch, Führer durch die AntikenAbteilung, 1968, p. 104. Pl. 51 a.
Closely related to the chalice in San Francisco (cat. no. 121).
134. Amsterdam, Allard Pierson Museum inv. no. 3762.
? Kyathos on stemmed foot. Height ?
Animal frieze.
Unpublished. For information of this kyathos I am indebted to Miss Anja Drukker.
135. Leipzig, Antikenmuseum der Karl-Marx-Universität T 4735.
? Plate. Diameter 19,5 cm.
Running woman.
CVA Leipzig 2 p. 53 and Taf. 48.
136. Oxford, Ashmolean Museum inv. no. 1946.54.
? Cup with one horizontal and one vertical handle.
Sirens flanking plants.
EVP p. 12. To be published by Dr. C. M. Stibbe in 1977.
137. Amsterdam, Allard Pierson Museum inv. no. 954.
? Stand. Height $38,5 \mathrm{~cm}$.
Frieze of lotus buds and blossoms.
CVA Musée Scheurleer 1, IV Bd. pl. 2,4.
138. ? (Sotheby 1-12-1969 no. 82).
? Single-handled beaker. Height 9,5 cm.
Frieze of birds.
Unpublished.
139. ? (Sotheby 18-6-62 no. 120).
? Kyathos. Height 25 cm .
Frieze of birds, siren, and centaurs.
Unpublished.
140. ? (Sotheby 3-12-73 no. 121).
? Chalice. Height 15 cm .
Animal frieze.
Depicted in the auction catalogue.
141. ? (Münzen und Medaillen, Auktion XIV 1954, Basel, no. 92).
? Amphora. Height 35 cm .

Shoulder motif: A and B two sphinxes walking towards the left.
Depicted in the auction catalogue pl. 23.
142. ? (Hesperia Art Bulletin 39 no. A9).
? Globular cup with horizontal handle. Height $9,5 \mathrm{~cm}$. Frieze of birds.
Depicted in Hesperia Art Bulletin 39.
143. Kiel, Privatsammlung (Sotheby 18-6-62 no. 149).
? Amphora.
Shoulder motif: A and B Silens and maenads.
Unpublished. Its present whereabouts are stated by Schauenburg in his list of new Pontic vases (JdI 1970 p. 29 note 10).
144. Sidney, Nicholson Museum of Antiquities inv. no. 53.15.
? Kyathos. Height (incl. handle) $13,5 \mathrm{~cm}$.
Animal frieze.
Unpublished (mentioned by Trendall F.A. 8, 1953 (1956) no. 101). By the Silen Painter?
145. ? (Società Hercle, Rome).

Vulci (tomb 135 of the excavations of the Società Hercle). Oinochoe. Height 25,4 cm.
Shoulder motif: Comasts.
Materiali di Antichità Varia II, Scavi di Vulci, Materiali concesso alla Soc. Hercle, Rome 1964 (Ministero della Publica Istruzione) no. 390.
146. ? (Società Hercle, Rome).

Vulci (tomb 135 of the excavations of the Società Hercle).
Oinochoe. Height $25,4 \mathrm{~cm}$.
Shoulder motif: Comasts.
Meteriali di Antichità Varia II, Scavi di Vulci, Materiali concesso alla Soc. Hercle, Rome 1964 (Ministero della Publica Istruzione) no. 391.
147. New Castle-upon-Tyne inv. no. D33.
? Amphora.
Unpublished.
148. New Castle-upon-Tyne.

Plate.

Birds.
Unpublished.
149. Hamburg, Museum für Kunst und Gewerbe inv. no. 1963, 19.
? Chalice. Height 11 cm .
Friezes of birds, panther and lion.
AA 1969 p. 357 Abb. 42.
150. ? (Münzen und Medaillen XXVI,162).
? Globular cup with horizontal and vertical handle. Height $14,5 \mathrm{~cm}$.
Phallos birds.
Depicted in the auction catalogue pl. 57.
151. Kassel, Staatliche Kunstsammlungen T434.
? Cup. Height 6 cm .
Animal frieze.
CVA Kassel 2 Taf. 69,1-4. In the manner of the Paris Painter but not by his own hand.
152. Rome, Villa Giulia inv. no. 74895.
? Chalice. Height $15,8 \mathrm{~cm}$.
Winged horses.
Nuove scoperte e acquizioni nell'Etruria meridionale (presented by M. Moretti), 1975, p. 209 no. 22 and Tav. 49. Related to works by the Painter of Bibl. Nat. 178.
153. Rome, Villa Giulia inv. no. 74896.
? Chalice. Height 15 cm .
Animal frieze.
Nuove scoperte e acquizioni nell'Etruria meridionale (presented by M. Moretti), 1975, p. 209 no. $23^{315}$.
154. ? (Sales catalogue Ede november 1973).
? Chalice. Height $12,7 \mathrm{~cm}$.
Animal frieze.
Depicted in the auction catalogue.
155. Bonn, Akademisches Kunstmuseum inv. no. 506,1-2.
? Fragments of a chalice.
Animal frieze.
Dohrn no. 138 and Taf. 4. By Dohrn attributed to the Amphiaraos Painter.
156. Rome, Villa Giulia.

Vulci (necropoli dell'Osteria tomb 177). Kyathos. Height 15 cm .
Dogs chasing a hare.
Pl. 48 .
157. Hannover, Kestner-Museum.
? Globular cup with horizontal handle. Height $10,1 \mathrm{~cm}$. Animal frieze.
Pl. 49 .

## Vases whose affiliations to the Pontic workshop are doubtful

1. Halle, Archäologischer Institut der Martin-Luther-Universität inv. no. 217.
? Lydion. Height 8 cm .
Animal frieze.
AM 1920 Taf. V,4. E. Bielefeld, Die Antiken-Sammlung des Archaeologischen Instituts der Martin-Luther-Universität no. 53 (Wissenschaftliche Zeitschrift der Martin-Luther-Universität II, 1952-53, Gesellschafts- und Sprachwissenschaftliche Reihe, p. 94).
Dohrn no. 133.
2. Amsterdam, Allard Pierson Museum.
? Lydion. Height $10,7 \mathrm{~cm}$.
Band of tongues.
CVA Musée Scheurleer 1, IV Bd. pl. 3,3.
Dohrn no. 159.
3. Berlin, Staatliche Museen Antiken-Abteilung Charlottenburg inv. no. F 2147.
? Plate. Diameter $16,5 \mathrm{~cm}$.
Fishes.
Pl. 52.
Dohrn no. 167.
4. Bonn, Akademisches Kunstmuseum inv. no. 624.
? Cup. Height 8,6 cm.
Walking men.
StEtr. 12, 1938, p. 288 and Tav. LV,3.
By Dohrn rightly considered to be late. The style is rather far from the normal Pontic.
5. Berlin, Staatliche Museen Antiken-Abteilung Charlottenburg inv. no. F 1663.
? Plate. Diameter 12 cm .
Panther.
Pl. 51b.
6. Berlin, Staatliche Museen Antiken-Abteilung Charlottenburg inv. no. F 2111.
? Lydion. Height 8,7 cm.
Friezes of ivy and pomegranates.
J. Boehlau, Aus jonischen und italischen Necropolen, 1898, p. 146 and fig. 69. Gehrig-Greifenhagen-Kunisch, Führer durch die Antiken-Abteilung 1968, p. 44.
Dohrn no. 93. For his attribution to the Paris Painter see PP p. 13.

Vases which are known to me only through brief mentions
A chalice in Kiel with griffins and arimasps (Schauenburg JdI 1970 p. 29 note 10 ).
A chalice on the market in Rome 1962 (ibid.).
An amphora on the market in Rome 1964 (a horseman on each side) (ibid.).
An oinochoe which is a pendant to the oinochoe in Amsterdam (cat. no. 92) (Stibbe, Hermeneus 45, 1973-74, no. 5 p. 374 and note 18).
Fragment of a kyathos in the Castellani Collection in Villa Giulia (EVP p. 12).
An amphora in the Henri Mondor collection in Paris (Bothmer, Met. Mus. Bulletin n. s. 14, 1955-56) formerly in the Swansea coll. (mentioned by Beazley RG p. 75 no. 87). According to his description of the vase it may be a work by the Paris Painter. Chalice, private collection in Basel (Hoffmann AA 1969 p. 357). A globular cup with horizontal and vertical handle in Villa Giulia-gift from sig. Bogiovi (Giuliano, StEtr. 1969 p. 18 note 4). An oinochoe formerly in the Collection of prince Albert in Berlin (Beazley RG p. 75 no. 87).
An oinochoe with Europa mentioned by Beazley (ibid.) as being in Museo di Civitavecchia. I have not been able to find it in the museum.

Vases which have wrongly been attributed to the Pontic workshop Munich $921^{294}$, $973^{295}$, and Louvre CA $1870^{296}$. Attributed by Dohrn ${ }^{297}$. Both the style and the shape of Louvre CA 1870 contradicts an attribution to the Pontic workshop (cf. p. 67 cat. no. 85).
Bonn $386 \mathrm{~B}, 386 \mathrm{C}{ }^{298}, 386 \mathrm{~A}$, and an amphora in a private collection in Basel ${ }^{299}$. Attributed by Dohrn ${ }^{300}$.
Villa Giulia M $392^{301}$. Attributed by Dohrn ${ }^{302}$, but separated from the workshop by Beazley ${ }^{303}$.
Vatican $233^{304}$. Attributed by Dohrn ${ }^{305}$.
Vatican $232^{306}$. Attributed by Dohrn ${ }^{307}$.
Munich $1005^{308}$ and a lydion in Museo Capitolini ${ }^{309}$. Attributed by Dohrn ${ }^{310}$. The Atticizing style of the animals contradicts this attribution.
Lekyth in the Norbert Schimmel Collection. Attributed by H. Hoffmann ${ }^{311}$.

## Additions to "The Paris Painter"

Since the publication of my paper on the Paris Painter some new vases by this painter have come to my knowledge.

Most important among these is an oinochoe in the Villa Giulia (pl. 54-57). It was found in tomb 177 on the Necropoli dell'Osteria at Vulci. The surface of the oinochoe is badly damaged and most of the glaze has disappeared, yet the larger part of the incisions are still to be seen faintly. The shape is the same as that of the other oinochoai attributed to him ${ }^{312}$. The height is 33 cm .

The oinochoe displays many features and details not seen on other of the Paris Painter's vases. Yet I think a sufficient number of details are rendered in his very characteristic way to make the attribution certain.

Where to place it in his production presents problems. The tongue pattern is otherwise only seen in the older part of his production, but not on the belly of the vases. The large flower ornaments also have a certain relation to the bands of large lotus and palmettes on for instance the amphora in Tarquinia, PP cat. no. 15. The rendering of folds in the chiton of Deianeira however points to the later part of his works. The many unusual features
can best be explained if you consider this oinochoe a very late piece-later than any of the other surviving vases and more in accordance with the other Pontic vase-painters. The two plates by the Tityos Painter also found in this tomb (cat. nos. 27 and 32) do not belong to the earliest part of this painter's production. The mixture of an animal and a figure frieze on the upper belly is quite unlike the Paris Painter and more in the fashion of his followers. It looks as if his style changed more in course of time than it appeared from the rest of his production.

Besides this oinochoe by the Paris Painter the tomb contained two plates (cat. nos. 27 and 32) by the Tityos Painter, a kyathos and an oinochoe (cat. nos. 6 and 10) by the Amphiaraos Painter, three chalices (cat. nos. 109-111), and a kyathos (cat. no. 156). For the rest of its contents see StEtr. 37, 1969, p. 17 note 4. The Attic Little-Master cup has a kalos inscription: Athenaios kalos.

In the Villa Giulia there is also an unpublished amphora by the Paris Painter found in Cerveteri:
Foot: black.
Belly: ring of rays, lotus-palmette frieze, and band of stylized ivy. Shoulder: A and B trees.
Neck and rim are missing.
This amphora belongs to the older part of the Paris Painter's works considering the stylized ivy and the lotus blossoms which are of the dissolved type and rather similar to those on the Tarquinia amphora with silens ( $P P$ cat. no. 15) only not so elaborate.

Miss Anja Drukker has kindly informed me of a plate in the Louvre, E 675 (Pl. 53). It has a lion with raised foreleg in the tondo surrounded by a frieze of lotus and palmettes. The drawing of the lion is very elaborate. The foreleg incisions are as on the kyathos in Victoria and Albert Museum ( $P P$ cat. no. 27) and the above-mentioned oinochoe in the Villa Giulia. On the top of its hindlegs is an incision similar to his rendering of human knees as seen in $P P$ fig. 8a (this detail on the hindlegs of a lion is also for instance seen on one of the lions attacking a bull on Berlin F 1885 (PP cat. no. 37). The shoulder line is indicated in a more elaborate way than his usual (reminiscent of the Tityos Painter's, see fig. 6).

The amphora from grave 106 in the necropolis of Banditaccia in Cerveteri ( $P P$ cat. no. 22 ) is exhibited in the Cerveteri vase room in Villa Giulia, no. 48070 , whereas $P P$ cat. no. 6 is in the museum of Leiden, inv. no. K 1958.

A kylix in Hamburg, inv. no. 1969,16 has by Hoffmann ${ }^{313}$ been considered a work by the Campana workshop. However, his comparison with a work by the Ribbon Painter such as the dinos in Copenhagen ${ }^{314}$ I do not find very convincing. You might be inclined to consider the kylix a product of the Pontic workshop, to which four other kylikes of the same shape and structure of decoration can be attributed (cat. nos. 13-15 and 102) and to consider it a work by the workshop's leading artist the Paris Painter, to whose style there is an evident likeness. However, a closer examination reveals that many details are very different. The form of the bird's wings is not seen in any other of this painter's works. This also goes for the rendering of Hermes' eye and knees. The drawing of the god's hands is finer than in any work by the Paris Painter. An attempt to attribute the kylix to any other of the identified Pontic vase-painters will in my opinion also fail, so afterall Hoffmann's suggestion of attributing the kylix to a Etrusco-ionian workshop may be right.

## Notes

1 Lise Hannestad, The Paris Painter, an Etruscan Vase-Painter. Det Kongelige Danske Videnskabernes Selskab, Historisk-filosofiske Meddelelser 47,2. Copenhagen 1974. Henceforth quoted as $P P$.
2. Since the publication of my paper on the Paris Painter, new works by him have come to my knowledge. See page 81.
3. Dohrn was the first to identify this painter. He considered him the founder of the workshop (Dohrn p. 78 ff ., but see $P P$ p. 27).
4. This does not apply to the horses, whose shoulder blades are rendered in a way reminiscent of the Paris Painter's.
5. Compare with $P P$ fig. 1.
6. On the hippocamp drawn exactly as on one of the panthers on Munich 838 (cat. no. 1).
7. An amphora in Berlin, F 1673 (cat. no. 119) also has some resemblance to works of this painter. However, it is farther from the nucleus of his works than Vatican 230 (cat. no. 12) so I have placed it among unattributed vases.
8. The two warriors in the Amphiaraos scene, however, have white dots for eyes, as is often seen in the works of the Tityos Painter.
9. Cf. Hampe-Simon p. 18 note 2.
10. BJb 166, 1966, p. 123.
11. As technical investigations seem to have proved that this vase is genuine (cf. JbZ Mus. Mainz 1967 p. 87 ff .), I have included it among the Pontic vases, although it is certainly the most doubtful of the three vases which Dohrn called forgeries (see also Mingazzini in BJb 173, 1973, p. 112 ff .).
12. On Karlsruhe B 2588 (cat no. 8) and British Museum B 55 (cat no. 7).
13. On the Villa Giulia kyathos (cat. no. 6) and the Basle amphora (cat. no. 15).
14. On Munich 1003 (cat. no. 11).
15. On Vatican 230 (cat. no. 12).
16. On British Museum B 55 (cat. no. 7).
17. On the Basle amphora (cat. no. 15).
18. On the shoulder of the Civitavecchia oinochoe (cat. no. 9).
19. On the cup in Basel (cat. no. 17).
20. On the kylix in Civitavecchia (cat. no. 16).
21. Cf. $P P$ p. 11 ff .
22. Munich 838 (cat. no. 1), Vatican 230 (cat. no. 12), and Basle Zü 209 (cat. no. 15).
23. On Munich 838 (cat. no. 1) there are rosettes between the rays.
24. The only exception is the new oinochoe by him in the Villa Giulia cf. p. 81.
25. On Br. Mus. B 55 (cat. no. 7) the lower pseudomeander is substituted by a band of stylized flowers.
26. On the Villa Giulia oinochoe (cat. no.10) most of this frieze consists of horsemen.
27. On the Villa Giulia oinochoe (cat. no. 10) it has been placed above the rays, on the Civitavecchia oinochoe (cat. no. 9) between the bird and the animal frieze.
28. Munich 938 (cat. no. 2) and the two in the Faina Museum (cat. nos. 3 and 4).
29. Cf. Kunze AM 1934 p. 115.
30. On Munich 838 (cat. no. 1), Munich 938 (cat. no. 2) and the Villa Giulia oinochoe (cat. no. 10).
31. J. Overbeck, Gallerie heroischer Bildwerke der alten Kunst 1, 1853, p. 92. FR III p. 10. Hampe-Simon p. 18 ff.
31a. For a detailed study of the subject "Kriegers Ausfahrt", see AM 1916 p. 221 ff.
32. F.R. Taf. 122. Pfuhl, Malerei und Zeichnung III fig. 179.
33. Pausanias V, XVII, 8.
34. Olympiabericht I Taf. 30-31. H. von Steuben (Frühe Sagendarstellungen in Korinth und Athen, Berlin 1968) has remarked that the direction of action is the same in the Kypselos Chest and on this bronze as on the two Pontic vases, whereas in Corinthian and Attic vase-painting it is the opposite.
35. Graef Taf. 92.
36. Firenze 3773 (Thiersch Taf. III) and two in Leipzig (AM 1916 Taf. XV, 10 and 11).
37. Chiusi 1974, AM 1916, Taf. XXVII, ABV p. 330 no. 1 at the bottom.
38. Not on the last-mentioned vase, but here as on the Pontic vases a marching warrior is seen in front of the team of horses.
39. Curtius, "Hermeneutische Miszellen" in Festschrift Arndt, 1925 p. 36 ff . NSc. 1905 p. 234 fig. 25.
40. Hampe-Simon p. 26.
41. Cf. note 31.
42. Berlin F 1655 cf. note 32 .
43. Firenze 3373, cf. note 36 .
44. Cf. note 33.
45. $P P$ cat. no. 31 and pl. 22-23.
46. Inv. no. 1969, 16. AA 1969 p. 357 f. and Abb. 43 a-b. Cf. p. 83.
47. This, however, is very uncertain. Related adornments are seen on a few later Greek piloi, e.g. on an amphora in Lecce showing Polyneikes and Eriphyle, CVA Lecce 1, III Ic Tav. 1,3 and 2,2 .
48. StEtr. 12, 1938, Tav. XIX, 1-2 no. 74.
49. Ibid. Tav. XIX, 3 no. 85.
50. Ibid. Tav. XXII, 3 no. 78.
51. Similar representations in which all the participants are women are also seen on cippi from Chiusi. However, the women do not sit on folding-stools but on chairs (e.g. on the above-mentioned cippus in Munich, StEtr. 12, 1938, Tav. XXII, 2 no. 78).
52. With respect to the origin, etc., of the person seated on a folding-stool, see Riis, Tyrrhenika p. 38 note 13.
53. Regarding their very uncertain meaning, see Paribeni in StEtr. 13, 1940, p. 183 ff .
54. CVA Wien, Kunsthistorisches Museum Taf. 35,2. K. Friis Johansen, The Iliad in Early Greek Art, 1967, p. 271 no. 34.
55. Cf. PP p. 24 f .
56. Dohrn p. 49 f.
57. E.g. Louvre E 702 (Hemelrijk no. 3) and Musei Capitolini no. 203 (Hemelrijk no. 9) both dated to $530-520$ B. c.
58. $P P$ cat. no. 19.
59. Dohrn p. 44 ff.
60. Sometimes only one.
61. It looks like a breaking up of the Paris Painter's foreleg incision (see $P P$ fig. 1), especially of the variation of it seen, for instance, on the cup in the Victoria and Albert Museum (PP cat. no. 27, Pl. 16), or on the recently acquired oinochoe in the Villa Giulia (cf. p. 81). On an amphora in Tarquinia ( $P P$ cat. no. 15, Pl. 9) the Paris Painter has himself rendered the details on the forelegs in a way very similar to that of the Tityos Painter.
62. On Florence 3778, 3779 and Münzen und Medaillen XVIII, 140 (cat. nos. 18,19 , and 24) there are three small strokes instead of this curved incision.
63. E.g. on the lions on the shoulder of the two Florence oinochoai (cat. nos. 18-19).
64. On Bibl. Nat. 173 (cat. no. 25), this line has been changed; see pl. 12-13.
65. E.g. the rendering of the shoulder and of the transition from body to foreleg of the panther and the lion.
66. Hemelrijk (p. 66) has also attributed it to the Tityos Painter himself.
67. Very much the same was seen on the sphinxes on the Florence oinochoai (cat. nos. 18-19) and the deer in the animal frieze on Munich 836 (cat. no. 20).
68. Cf. $P P$ p. 10 .
69. Dohrn p. 148 f. nos. 105-107, 109, 115-122, 124-126.
70. Miss Drukker and I attribute Dohrn's nos. 109 and 116 to our Silen Painter See note 315 for further attributions to the Tityos Painter.
71. Cf. p. 20 for the animals of Bibl. Nat. 171 (cat. no. 35).
72. An influence which is reflected in the lotus-palmette frieze on Würzburg 780 (cat. no. 45).
73. The wavy lines on the triton on Bibl. Nat. 178 (cat. no. 43) could be considered reminiscent of this painter's taste for such lines in the two amphorae.
74. On the Florence oinochoai (cat. nos. 18-19), Munich 937 (cat. no. 21), Münzen und Medaillen XVIII, 140 (cat. no. 24), the Erlangen oinochoe (cat. no. 37), and the Reading amphora (cat. no. 30), where it is also seen in a more elaborate form consisting of three stems.
75. For a more unusual type of plant, see Bibl. Nat. 173 (cat. no. 25), and the two plates in the Villa Giulia (cat. nos. 27 and 32).
76. In the frieze above the ring of rays on Florence 3779 (cat. no. 19) a variant of this type without incisions is used-he probably simply forgot the incisions.
77. Palmette type 2 is seen on Munich 836 (cat. no. 20) where it has knobs along the edge, on Munich 990 (cat. no. 22) where the receptacle has the vertical incision characteristic of type 1, Ars Antiqua I, 129 (cat. no. 26), the plates
in the Villa Giulia and the Ny Carlsberg Glyptotek (cat. nos. 27, 31 and 32), the oinochoe in Stockholm (cat. no. 41), and Bibl. Nat. 171 (cat. no. 35).
78. Type 3 is seen on Munich 836 (cat. no. 20), Munich 990 (cat. no. 22), and at the handles of the cup in Basle (cat. no. 42).
79. This type of lotus is seen on Munich 990 (cat. no. 22), elaborated with two volutes, on the Nessos plate in the Villa Giulia (cat. no. 32), on Ny Carlsberg Glyptotek H146b (cat. no. 31), and on Bibl. Nat. 171 (cat. no. 35).
80. On one of the squares the star is replaced by a hooked cross (pl. 19), cf. p. 21.
81. On the three plates Ny Carlsberg Glyptotek H146b (cat. no. 31), and the two on the market (cat. nos. 28 and 36).
82. On Ars Antiqua I, 129 (cat. no. 9).
83. On Bibl. Nat. 173 (cat. no. 25) and the cup in Boston (cat. no. 34).
84. On the sherd in Bonn (cat. no. 33).

84a. On the cup Sotheby 4-5-1970 no. 110 (cat. no. 29a).
85. E.g. 5 oinochoai, 4 amphorae, and 5 plates.
86. Florence 3778 and 3779 (cat. nos. 18-19), Ars Antiqua I, 129 (cat. no. 26) (frieze of oxen), and the Stockholm oinochoe (cat. no. 41).
87. Munich 836 (cat. no. 20), Bibl. Nat. 173 (cat. no. 25), the Reading amphora (cat. no. 30), and Bibl. Nat. 171 (cat. no. 35).
88. The two Florence oinochoai (cat. nos. 18-19), Munich 836 (cat. no. 20), Bibl. Nat. 173 (cat. no. 25), Ars Antiqua I, 129 (cat. no. 26), and one of the plates in the Villa Giulia (cat. no. 32).
89. CVA Louvre fasc. 5 III He pl. 57,12 and 16.
90. Albizzati no. 388 pl. 55.
91. L 173; Payne no. 941 and pl. 31.9-10. Baur p. 94 no. 21.
92. Now in Boston. Depicted in EAA VI p. 137 fig. 150.
93. A. Åkerström, Die architektonischen Terrakotten Kleinasiens Taf. 64-65 and p. 125 fig. 37.
94. Either Pholos was not seen or is not preserved.
95. P. Zancani Montuoro-U. Zanotti Bianco, Heraion alla foce del Sele II p. 112 ff ., reconstruction pl. XIX.
96. StEtr. 34, 1966, p. 371 ff.
97. Ibid. p. 371 nos. 1-2.
98. In favour of this theory it may be noted that Pholos' cave is indicated on one of the braziers (on the other one the scene is only partly preserved), but not on the oinochoe by the Tityos Painter.
99. Giglioli Tav. LXXI, 2.
100. Masner no. 207 p. 19 fig. 12.
101. CVA pl. 13, 11.
102. CVA Louvre fasc. 1 III Dc pl. 7,2.
103. No. 1645. Depicted Baur pl. VI,173.
104. See p. 81: Additions to the Paris Painter no. 1.
105. One in the Villa Giulia (Mon. Piot. 1950, p. 5 and fig. $3-4$ and pl. 3,3), one in the Louvre, Campana 10228 (Mon. Piot 1946, p. 51 fig. 11-13 and pl. 6. Mon. Piot 1950, p. 7 fig. 5), and on the back of the Polyphemus hydria in the Villa Giulia (Mon. Piot. 1950, pl. 1).
106. On a neck amphora in Altenburg (CVA Altenburg I Taf. 22,2) dated to 520 510 B. C.
107. The motif is also known from other Etruscan vases: Zürich E.T.H.B. 14 of the Ivy Group (Dohrn p. 143 no. 18, Baur pl. IV no. 308) and on Munich 834 (Sieveking-Hackl Taf. 33 and Abb. 94-95), but in both Nessos carries Deianeira (a scheme borrowed from Attic prototypes).
108. A less likely possibility is that he borrowed the motif directly from a very rare Attic variation of it represented by the above-mentioned amphora in Altenburg (cf. note 48). On Munich 834 (cf. note 107), Nessos has equine forelegs as in Attic, whereas he has human forelegs on the Tityos Painter's plate, the Paris Painter's oinochoe, the amphora in Zürich (cf. note 49), and the three Caeretan hydriai.
109. Bulletin de la faculté des lettres de Strasbourg 30, 1950-51, p. 239 ff .
110. For references to these, see Amandry, p. 308, notes 1-3.
111. Athens NM 416CC792 (JHS 1955 p. 91 and Pl. VI,1-3. MarbWP 1949 p. 5 and Taf. 2).
112. JdI 1970 p. 40 f.
113. JHS 1951 p. 198 ff.
114. This interpretation was first made by Beazley in EVP p. 295.
115. E.g. on a Corinthian crater in the Louvre, E638bis (Rev. Arch. 50, 1957, p. 25 ff . and fig. 6).
116. E.g. Munich 1426 (CVA München 7, Taf. 311-12) and Florence 70993 (MdI 4, 1951, Taf. 24,1). A third, rather infrequent, Greek version of the theme shows Troilos standing at the altar and Achilles just about to sacrifice him. This is seen on two shield straps, one from Olympia (Ol. Forsch. II Taf. 73,1 ) and one from Isthmia (Hesperia 1959 p. 331 fig. 8), and on a (heavily restored) Attic black-figure hydria in Portugal (M. Helena Rocha Pereira, Greek Vases in Portugal, 1962, no. 9).
117. Cf. Mota Rev. Arch. L, 1957.
118. Cf. Schauenburg JdI 1970 p. 66.
119. $P P$ pl. 29a.
120. W.-G. Thieme p. 10 tripod A, scene 1,a. Depicted in AJA 1908 pl. XIII.
121. Cf. Thieme p. 14-15.
122. Brunn-Körte I Tav. XLVIII, 2 ff.
123. E24. A Rumpf, Katalog der etruskischen Skulpturen, 1928, Taf. 17.
124. H.229. From Orvieto.
125. Catalogue of Silver Plate 1921, no. 3. JdI 1958 p. 13 Abb. 2.
126. Hampe-Simon Tf. 25.
127. Brunn-Körte I Tav. LII,9. Under Troilos' horse on a red-figure stamnos in Florence is an unidentified object (BJb 161, 1961, Taf. 43,2 and p. 219 note 20).
128. The hydria appears on two bronze plaquettes in the Villa Giulia (StEtr. 1969 tav. XXVII, from Vulci), but it is being filled by Troilos at the fountain.
129. Often in amazonomachies, e.g. von Bothmer pl. 55, 1-4.
130. E.g. on an Attic hydria in Br. Mus., B305 (CVA Br. Mus. 6 III He pl. 77,1) and an Attic neck amphora in Br. Mus., B252 (CVA Br. Mus. 4 III He pl. $62,2 a)$.
131. Norbert Kunisch, Die Verfolgung des Troilos, AA 1965 p. 398.
132. Furtwängler in Antike Gemmen III p. 84-85. Ducati p. 17-18. Camporeale in StEtr. 26, 1958, p. 11 ff. Banti in StEtr. 34, 1966, p. 378 f., and E. Simon in Hampe-Simon p. 29 ff .
133. Déscription de quelques vases peints étrusques, italiotes, siciliens et grecs, 1840, p. 4 ff.
134. Hampe-Simon p. 32 ff.
135. An identification which is made even more probable because the A-side of the vase illustrates a myth in which Apollo plays a part. For this connection between the motifs of the two sides of the Pontie amphorae, see PP p. 19-21 and note 128 .
136. Which looks rather Indian! Professor Riis convincingly suggests that the cap is inspired by Perseus' winged cap, and the shield certainly looks very much like a kibisis.
137. Münzen und Medaillen XXII, no. 193.
138. Andrén Arch. Tar. pl. 128, I:6.
139. Roncalli Tav. II.
140. Ibid. tav. IV.
141. Roncalli (op.cit. p. 89) connects the scenes on the Campana plaques with those on a cippus in Palermo (Giglioli tav. CXLI), where on one side a hoplite carries off a woman, while on another is seen an assembly of seated and standing people in conversation (for the last-mentioned scene cf. Amphiaraos Painter p. 15).
142. Vienna no. 1359a, Gerhard IV Taf. 11,1. The lower part of the mirror is rather damaged, so it is impossible to see whether Apollo has winged boots or just wings on his feet.
143. For winged demons in general in Etruria, see A. M. Lombardo, Vaso etrusco a figure nere del gruppo di La Tolfa, StEtr. 1961 p. 313.
144. For instance on Hellenistic urns from Perugia, where they rise from a puteal (Brunn-Körte III tav. X,6).
145. JdI 1973 p. 38.
146. Latte also connected the hirpi Sorani-the priests of Soranus-with the wolf-demons on the Hellenistic urns (cf. note 144).
147. Beazley hesitates to attribute the vase to the Ivy-Lead Group (EVP p. 11). Simon was the first to recognize that this figure was partly a wolf-not a lion as formerly believed.
148. E.g. CVA British Museum 2 III He pl. 13. CVA Louvre 8 III He pl. 77. CVA Munich 6 Taf. 291,1 (Laconian cup).
149. E.g. on an Attic lekythos in Cambridge (CVA 1, pl. XXII,20 and XXIV, 1a-b).
150. JdI 1943 p. 220 fig. 11, StEtr. 10 tav. IV. Cf. Banti, The Etruscan Cities and their Culture, 1973, p. 187.
151. For instance, the lions on the Florence oinochoai (cat. nos. 18-19) are very similar to those of the Paris Painter. On these two vases there is also an alternation between the Paris Painter's way of rendering the shoulder of the animals ( $P$ P fig. 5) and the one more characteristic of the Tityos Painter (fig. 6). These two oinochoai and Münzen und Medaillen XVIII, 140 (cat. no. 24) are probably among the oldest in group one.
152. $P P$ cat. no. 11.
153. Musées Royaux d'Art et d'Histoire R 223. PP pl. 32. CVA Brussels 3, IV B pl. 1. Ducati pl. 21.
154. These tubular folds are also seen on some of the later Caeretan hydriai, e.g. on Berlin inv. no. 3355, dated by Hemelrijk to $520-510$ B. C. This type of fold is not seen in Attic red-figure style, but in the late black-figure style, for instance on a very late amphora by the Amasis Painter in Boston (Friis Johansen, The Iliad in Early Greek Art, 1967, fig. 40) and on an oinochoe by the same painter in the Vatican (Albizzati no. 432, tav. 60). Beazley (Development p. 58) gives a rather unprecise date for the Boston amphora: "Indeed the drawing of the muscular bodies would point to a date not earlier than the twenties or teens of the sixth century, contemporary with the Leagros Group and the red-figured work of Euphronios and his fellows'". The tubular folds are also common in the La Tolfa Group, and A. M. Lombardo (StEtr. 29, 1961, p. 316) dates an amphora from this group where these folds are seen, Florence 84819, to 520-510 B. C.
155. For this grave and its contents, see p. 81 f .
156. The drawing on the two Florence oinochoai (cat. nos. 18-19) is so developed and confident that they clearly cannot represent his first attempts as a vasepainter. Probably there are one or more of his earliest works among the vases which I have not attributed to any specific painter (p. 64 ff .).
158. On the necks of Bibl. Nat. 178 (cat. no. 43) and the Toronto oinochoe (cat. no. 44), in the uppermost frieze on the belly of Bibl. Nat. 178 (cat. no. 43), and in the frieze below the animal frieze on Munich 984 (cat. no. 47).
159. E.g. the band of ivy.
160. E.g. the combination of net pattern, pomegranates and palmettes on the belly of the Vienna amphora (cat. no. 46).
161. E.g. Bonn (cat. no. 53) by the Silen Painter and Sotheby 4-5-1970 (cat. no. 29a) by the Tityos Painter.
162. Hampe-Simon p. 41 ff .
163. Gerhard I Taf. 198 and IV Taf. 107.
164. Rather similar folds were used by the Tityos Painter on the Stockholm oinochoe (cat. no. 41).
165. Museo Nazionale Archeologico inv. no. RC 6848. Arias-Hirmer pl. 100104.
166. Arias-Hirmer pl. 99.
167. Albizzati pl. 19.
168. CVA Louvre 9, III Fa Pl. 11,4 and 6.
169. Op.cit. p. 46.
170. My part of this article is the result of an essay written for the final examination at the University of Amsterdam for which a stay at the Dutch Institute in Rome was made possible by a scholarship granted by the Dutch Ministry of Cultural Affairs. I am deeply indebted to Dr. C. M. Stibbe, Director of the Archaeological Department of the Dutch Institute in Rome, for his constant help and criticism. However, he should not be held responsible for such errors as this article may contain. While I was doing research on the Silen Painter, the "Paris Painter" by Lise Hannestad was published;
clearly we were both working on the same subject. Though she was already approaching the final stage of her work on Pontic pottery, she was kind enough to let me collaborate on this section on the Silen Painter.
I wish especially to thank Professor Dr. J. M. Hemelrijk for the enormous amount of inspiration which he gives his students.
A. D.
171. P. 13 ff and note 83 .
172. The nucleus of the work ascribed to the Silen Painter in this article was previously separated from the work of Dohrn's Paris Painter by Hemelrijk, op. cit. p. 66, and Brown, op. cit. p. 78.
173. $P P$ p. 14-15.
174. In Pontic in general there seems to be no clear difference between the male and the female eye, as there is in Attic vase painting. Neither does the Pontic workshop seem to have followed the tradition of distinguishing sexes by the colour of their flesh (white for women). This feature is otherwise only seen in the Caeretan hydriai and the Clazomenian vases.
175. $P P$ fig. $8 \mathrm{a}-\mathrm{b}$.
176. The silens of the Würzburg amphora (cat. no. 48) have an indication of the fetlock, as has the horse to the left on the B-side of the Brussels amphora (cat. no. 57). This is a standard feature in Attic black-figure and on the Caeretan hydriai.
177. $P P$ cat. no. 34.
178. Ibid. cat. no. 30 .
179. Ibid. p. 14.
180. E.g. his name-piece Munich 837 ( $P P$ cat. no. 1).
181. Cat. nos. 49, 53, 57-62.
182. E. g. Oxford 1961.467 (cat. no. 59).
183. Cf. Roncalli op. cit. Tav. XXVIII, where similar palmettes may be seen with a row of dots which do not touch the palmette. This plaque is dated "verso la fine del VI secolo'’.
184. $P P$ cat. no. 19.
185. Ibid. cat. no. 16.
187. E.g. Oxford 1961.467 (cat. no. 59).
186. P. 9-10.
188. E.g. Oxford 1961.467 (cat. no. 79), Greifswald 382 (cat. no. 67), Bonn 464,75 and 464,45/46 (cat. nos. 68 and 65).
189. Greifswald 382 (cat. no. 67).
190. Oxford 1971.911 (cat. no. 69).
191. Op. cit. p. 58.
192. Vienna IV 1127 (cat. no. 46) and a one-handled cup Sotheby 4-5-1970 no. 110 (cat. no. 29a).
193. $P P$ cat. no. 37.
194. Dohrn no. 41.
195. See Jacobsthal, Ornamente griechischer Vasen, 1927, p. 27.
196. E.g. the Paris Painter's amphorae Vatican 231 ( $P P$ cat. no. 3), Villa Giulia (ibid. cat. no. 16), Louvre E704 (ibid cat. no. 29), etc. It occurs on Caeretan hydriai as well, e.g. Endt Abb. 4 (see Hemelrijk p. 63).
The handle ornament on Louvre E703 (cat. no. 49) is not unlike the one on
the Amphiaraos Painter's name-piece Munich 838 (cat. no. 1). A plastic palmette is seen on the oinochoe Hamburg 1970.105 (cat. no. 103).
197. $P P$ p. 15.
198. Dohrn p. 45.
199. The two types of Pontic lion are best described by Brown op. cit. p. 77 ff . The first type is used by the Paris Painter; the second type, with the cusped mane, is more common and is for instance used by the Silen Painter, generally having a rather simple appearance.
200. Op. cit. p. 66.
201. Op cit. p. 44.
202. $P P$ cat. no. 34.
203. Ibid. cat. no. 3 .
204. Ibid. fig. 2.
205. Another vase in which the animal frieze on the belly is not made by the same painter as the shoulder scenes is the namepiece of the Tityos Painter (cat. no. 35), cf. p. 20.
206. PP cat. nos. 30 and 32 .
207. Ibid. cat. no. 10.
208. p. 14.
209. $P P$ cat. no. 30.
210. For instance, the only extant type of terracotta frieze plaques, with examples found in as many as eight sites, is the one with banquet scenes (J. P. Small, The Banquet Frieze from Poggio Civitate, StEtr. 39, 1971, p. 41). For Etruscan banquet scenes in general, see Simonetta de Marinis, La tipologia del banchetto nell'arte etrusca arcaica, 1961, and for the new monuments, Small's article.
211. Cf. de Marinis p. 51.
212. For instance from British Museum B57 PP cat. no. 11 .
213. Roscher V p. 1226 Abb. 3.
214. Thieme tripod A, 1, c. AJA 1908 pl. XIII.
215. Cf. Brunn-Körte pl. XLVIIIff.
216. Pottier p. 66.
217. Roscher III,2 p. 2734.
218. On a Tyrrhenian amphora from Cerveteri in the Villa Giulia (JbBerlMus. 1, 1959, p. 15 Abb. 8 and 9) she has apparently been replaced by Zeus.
219. StEtr. 26, 1958, p. 6.
220. Cf. A. Greifenhagen, Tityos (JbBerlMus. 1, 1959, p. 10 ff).
221. Ibid. p. 12 Abb. 5-6.
222. Louvre C10227 (Mon. Piot 41, 1946, p. 44 fig. 7).
223. Op. cit. p. 79.
224. In a New York private collection. JbBerlMus. 1, 1959, p. 31 Abb. 23-24.
225. Thieme A, 3, c. AJA 1908 pl. XV.
226. Op. cit. p. 16.
227. Bonn $464,70 / 71 / 75$ (cat. no. 68 ), Bonn $464,45 / 46$-Greifswald 382 (cat. nos. 65 and 67), and Basel Zü 211 (cat. nos. 61).
228. $P P$ cat. no. 10 .
229. Ibid. cat. no. 13.
230. Cf. PP p. 14.
231. E.g. the amphora Berlin F1675 ( $P P$ cat. no. 21).
232. "The partridge group", cf. $P P$ p. 25 f .
233. As in $P P$, shapes are only very briefly commented on.
234. Described in PP p. 22.
235. For the group, see Brown p. 125 ff .
236. RG no. 55 tav. 40. Gsell. p. 453 shape 77.
237. $P P$ cat. no. 38.
238. Ibid. cat. no. 27.
239. Op. cit. p. 54-55.
240. Cf. ibid. p. 55.
241. Würzburg 788 (cat. no. 88) and Noble Coll. (cat. no. 99). They both have a higher stem than normally seen in bucchero.
242. Basel Zü 388 (cat. no. 17), Kassel T434 (cat. no. 151), and Munich 990 (cat. no. 22).
243. CVA Br.Mus. 7, IVBa pl. 24,11.
244. $P P$ p. 28 ff .
245. Op. cit. p. 53 ff.
246. For this painter, see EVP p. 12 ff . Dohrn divided his works into six subgroups, calling them works of different painters; see op. cit. p. 89 ff . Bocci's article on the Micali Painter in EAA (IV p. 1103 f) draws heavily on Dohrn.
247. Bocci op. cit. states that the latest vases of the Micali Painter are contemporary with the latest vases of the Tityos Painter, but this seems to be a misunderstanding of Dohrn's dating of his "Sirenenmaler".
248. EVP pl. II-IIa.
249. CVA Copenhagen 5, IVB pl. 217,6.
250. Sieveking-Hackl Taf. 35.
251. EVP p. 1.
252. CVA Villa Giulia 1, IVB.n. Tav. 1,2. Pl. 71.
253. EVP p. 16.
254. For references, see EVP p. 17.
255. Mingazzini Gnomon XI, 1935, p. 75 Dohrn p. 76. Hemelrijk p. 66.
256. PP p. 30.
257. Op. cit. p. 66.
258. Albizzati Tav. 19.
259. Mon. Piot 1946 p. 53 fig. 13 and Pl. VI.
260. Cf. note 258.
261. For the La Tolfa group, see Dohrn p. 23 ff , EVP p. 11, EAA IV p. 501 f , StEtr. 29, 1961, p. 313 ff.
262. Mingazzini Tav. 34.
263. $P P$ p. 32 f.
264. Tomba dei Tori: for instance, Pallottino, Etruscan Painting (Skira), 1952, p. 31. Tomb 3698: Moretti, New Monuments of Etruscan Painting, 1970, p. 44-45. See also Brown p. 77 ff .
265. Brown (op. cit. p. 79) lists lions having this characteristic from four tombs, and considers them so similar that they must be by the same painter; the tombs are dei Baccanti (Pallottino op. cit. p. 54), del Morto (F. Weege,

Etruskische Malerei, 1921, pl. 44) del Vecchio (ibid. pl. 70), and delle Iscrizioni (ibid. pl. 73). To these, I feel, should be added the lions from Tomba del Teschio (Moretti op. cit. p. 169 ff ) and probably also those from Tomba Cardarelli (ibid. p. 93 ff ). Moretti's dating of Tomba del Teschio to the middle of the 5th century must be too late, as is also argued by Camporeale (AM 1968 p. 50). Camporeale (ibid.) attributes the tombs of Baccanti, Cardarelli, del Teschio and 1701 to the same painter (Maestro dei Baccanti). It is possible that all seven tombs were decorated by this painter, in which case Tomba del Morto and Tomba delle Iscrizioni must be considered the oldest.
266. Moretti op. cit. p. 44-45.
267. H. Leisinger, Les peintures étrusques de Tarquinia, 1953, pl. 6 and 11.
268. Ibid. pl. 33.
269. Roncalli tav. XXVIII.
270. Weege pl. 2 and Beilage III.
271. Discussed by Dohrn p. 82 ff and to a certain extent by Banti in StEtr. 24, 1955-56, p. 167 ff .
272. Cf. $P P$ p. 32-33.
273. Camporeale (op. cit. p. 43 ff ) has convincingly connected this tomb with the Tomba dei Giocolieri and attributed them both to the same painter (Maestro delle Leonesse). The Tomba dei Giocolieri has more in common with works of the Micali Painter as it is more recent than the Tomba delle Leonesse.
274. Op. cit. p. 84.
275. StEtr. 1969 p. 20.
276. By the term "vase school" (officina ceramica) of Vulci, Giuliano seems to refer to the Pontic and the La Tolfa workshops.
277. Op. cit. p. 167 and 179. In fact, this type is used by the Silen Painter (in the dinos in Victoria and Albert Museum (cat. no. 58) (cf. p. 37)). I do not consider the wings of the animals of Bibl. Nat. 173 (cat. no. 25) by the Tityos Painter, also cited by Banti, to be of this type.
278. Cf. note 264.
279. Moretti op. cit. p. 63 ff.
280. $P P$ p. 33.
281. Op. cit. 60.
282. Cf. note 150 .
283. Riis, Tyrrhenika, 1941, pl. 14,2. Belonging to Riis' Tripodworkshop 1 (Acta Arch. 1939 p. 22 ff).
284. Unfortunately the origin of the Loeb tripods, which show the closest connection both stylistically and thematically with the Pontic vases, is subject to debate (cf. PP note 223).
285. Mingazzini p. 71.
286. To mention a few examples: Andrén Arch. Ter. Pl. 8,26 and 27 (Cerveteri), Pl. 40,131 and 132 (Civita Castellana), Pl. 131,458 (Lanuvium). See also Dohrn p. 58-59.
287. Opuscula Romana 1, 1954, p. 231.
288. Andrén Arch. Ter. Pl. 4.
289. PP p. 33.
290. Of the vases from the Pontic workshop (minus the Paris Painter) where the
finding place is known, at least 45 (probably 48) come from Vulci, 8 from Cerveteri (1 of them uncertain), 3 from Orvieto, 1 from Tarquinia, 1 from La Tolfa, and 1 possibly from Nola.
291. For this group, see Brown, op. cit. p. 125 ff.
292. Op. cit. p. 128.
293. Gsell p. 453 (shape 77) and Magi RG p. 139 (no. 55).
294. Sieveking-Hackl Taf. 32 and Abb. 154-156.
295. Ibid. Taf. 42 and Abb. 184-185.
296. A. Merlin, Vases grecs Pl. XXIVa.
297. Op. cit. p. 150 nos. 141-143.
298. Antike Kunst 6, 1963, pl. 25,3-5.
299. Ibid. pl. 24,1-4.
300. Op. cit. p. 151 nos. 167 d-f and Antike Kunst 1963 p. 65.
301. Mingazzini Tav. 32,1-2.
302. Op. cit. p. 151 no. 167 b .
303. EVP p. 12.
304. Albizzati pl. 21.
305. Op. cit. p. 151 no. 163.
306. Albizzati pl. 21.
307. Op. cit. p. 151 no. 167 a.
308. Sieveking-Hackl Abb. 203-204.
309. RM $1923 / 24$ p. 74 Abb. 2 right.
310. Op. cit. p. 150 no. 157 and p. 151 no. 167 c.
311. Norbert Schimmel Collection, 1964, no. 46.
312. $P P$ cat nos. 23,24 and 39.
313. AA 1969 p. 357 no. 43.
314. Danish National Museum inv. no. 13443. JbBerlMus. 5, 1963, p. 115 fig. 10.
315. After the manuscript had gone to print I had the opportunity to see cat. no. 154 in the Villa Giulia. As also maintained by Dr. Stibbe (Nuove scoperte e acquisizioni nell'Etruria Meridionale p. 203) it is evidently a work by the Tityos Painter.
At the same time I saw in the museum of Ischia di Castro another work by the Tityos Painter, a kyathos found in the Belgian excavations at Castro, in style closely related to the Florence oinochoai (cat. nos. 18-19). Mette Moltesen kindly informed me that this kyathos has been published in Rend PontAcc. XXXVII, 1963-64, p. 74 fig. 10.
Recently Professor Schauenburg kindly sent me a photograph of the amphora in Kiel (cat. no. 143). It is evidently a work by the Tityos Painter, closely related to the amphora in Reading (cat. no. 30).

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## List of Illustrations and Photographic Sources

Pl. 2. and 3. Munich, die staatlichen Antikensammlungen no. 838 (cat. no. 1). Photo: die staatlichen Antikensammlungen, Munich.
Pl. 4. and 5. Rome, Museo di Villa Giulia (cat. no. 6). Photo: Niels Hannestad.
Pl. 6. London, British Museum B55 (cat. no. 7). Photo: British Museum (courtesy of the Trustees).
Pl. 7 a and b. Karlsruhe, Badisches Landsmuseum inv. no. B 2588 (cat. no. 8). Photo: Badisches Landsmuseum Bildarchiv R 15999-16000.
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Pl. 59. Copenhagen, Ny Carlsberg Glyptotek inv. no. H 229. Photo: Ole Woldbye.

Corrigenda.
P. 28 line 5 "(pl. 00)" read "(pl. 59)".
P. 56 "Titoys Painter" read "Tityos Painter".
P. 65 cat. no. 75 "Pl. $44 a$ " read " Pl. 40 a".

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## PHIL. 2,6 AND P.A. FLORENSKIJ

Det Kongelige Danske Videnskabernes Selskab
Historisk-filosofiske Meddelelser 47, 5


Kommissionær: Munksgaard København 1976

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L. L. HAMMERICH

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## Synopsis

In a study from 1966 L. L. Hammerich proposed that harpagmós in Phil. 2,6 be translated "rapture" (as in mystical experience where the elected is carried up to God), not "robbery", as usual. Later Hammerich became aware of a study in Russian by father P. A. Florenskij where the same interpretation had been proposed independently and based on different arguments, mainly taken from the Greek theological tradition. In this paper Hammerich expounds and appraises Florenskij's arguments. In addition he gives a sketch of Florenskij's life and scientific achievement, his personality and religious attitude.

## Preface of the Academy

On November 1st, 1975, the Royal Danish Academy of Sciences and Letters lost one of its most outstanding members, Professor Louis L. Hammerich, who reached the age of 83, being born on July 31st, 1892. From 1922 to 1958 he was professor of Germanic philology in the University of Copenhagen, and from 1941 to 1970 he held the post of editor of the publications of the Academy. Louis Hammerich was elected a member of the Academy in 1936, and this was only one of the numerous honours bestowed upon this eminent germanist and polyhistor. His obituary has been written by Professor H. Bach for inclusion in the Academy yearbook for 1976-77.

On the very day of his death, Louis Hammerich sent the manuscript of the present publication to the Academy together with a short note, seeking the advice of a couple of colleagues on certain points and requesting the publication of the paper. It is a sequel to a former contribution he made in 1966 to which he refers in the first lines. The final lines convey to the reader not only the thoughts of P. A. Florenskij, but also a message from the spiritual world of the late Louis Hammerich.

The Academy is pleased to publish this paper in memory of its distinguished author, and extends its thanks to professors Carl Stief, Børge Diderichsen and Povl Johs. Jensen and to N. J. Green-Pedersen, cand. mag., for their bona officia and to the Carlsberg Foundation for a grant towards the printing expenses. The only editorial comment needed is a statement of the fact that the notes contained certain lacunae which could but partly be completed. Consequently, the notes have been renumbered and rewritten, as far as they reached, in the hope that the reader will miss little if any information.

Erik Dal, Editor.

In 1966 I published a little book "An Ancient Misunderstanding (Phil. 2,6 "robbery")". ${ }^{1}$ The idea was that in oúx $\dot{\alpha} \rho \pi \propto \gamma \mu$ ov ท์ $\eta \dot{\prime} \sigma \alpha$ тo тò $\varepsilon i ̃ \nu \alpha ı ~ \imath ̋ \sigma \alpha ~ Я \varepsilon \tilde{\varphi}$ the word harpagmós was not to be understood as "robbery"- the theologians discussing whether this has to be defined as actus rapiendi "the act of taking, robbery", or res rapta "something which has been taken, robbed", or res rapienda "something which has to be taken, robbed"-but as a passive raptus (English rapture, French ravissement, German ein Entrücktwerden, Dutch een weggeruktzijn, Swedish ett hänryckande, Danish en bortrykkelse). It is not a vile robbery-as predicate of God the Father or God the Son, it is so absurd that even the Paulinian negation gives no sensible meaning. No, it is a high rapture, a being taken into the presence of God, as known from mystical experience, where the elected one is taken away to be like God. But to Christ, who was already in the form of God, this likeness with God did not consist of a passive rapture, but was something of which he himself had command, so that he could also relinquish himself, deprive himself of his likeness with God.

Most of the existing translations differ very little from each other. The Authorized Version may be representative of the old theory: Phil. 2, 5-8, Let this mind be in you, which was also in Christ Jesus: who, being in the form of God, thought it not robbery to be equal with God: but made himself of no reputation, and took upon him the form of a servant, and was made in the likeness of men: and being found in fashion as a man, he humbled
${ }^{1}$ An Ancient Misunderstanding (Phil. 2,6 "robbery") (Hist. Filos. Medd. Dan. Vid. Selsk. 41, no. 4, Copenhagen 1966).

## Reviews:

Norsk Teologisk Tidsskrift 1967, 58-59 Ragnar Leivstad; Vichiana, Rassegna di studi classici, diretta da Francesco Arnaldi e Carlo Del Grande, IV, 1967, 95-98, Giovanni Barra, Noterella di filologia "Erasmiana"' Dansk Teologisk Tidsskrift 30, 1967, Niels Hyldahl; The Expository Times, 1967, 253-259, D. W. B. Robinson; Theologische Literaturzeitung 23, 1968, 4, Günter Haufe; Dansk Teologisk Tidsskrift 36, 1973, 195-196, Otto Foss; cp. also T. Francis Glasson, Two Notes on the Philippians' Hymn (II, 6-11) (New Testament Stud, 21, pp. 133-139), esp. 1. An idiomatic phrase $\alpha \rho \pi \alpha \gamma \mu \dot{\nu} \nu \dot{\eta} \gamma \varepsilon \tilde{1} \sigma \vartheta \alpha 1$. Glasson contrasts the interpretation of the Eastern Church "prize" with that of the western Church "rapina". (Jakob H. Grønbæk, dr. theol., kindly drew my attention to this important article).
himself, and became obedient unto death, even the death of the cross.

A version according to the new theory would read: Let this mind be in you which was also in Christ Jesus, who, while he was in the form of God, considered that to be like God was no rapture; but he himself debased himself, took upon him the form of a servant and became a man like we are; and when he appeared like a man he humbled himself, and became obedient unto death, even unto the death of the cross.

To obtain this result, I went into the details of a rather extended theological complex, considering on one hand the misunderstanding attached to the translation "thought it not robbery", as well as the theological discussions based upon this translation, and on the other hand the advantages of the new translation "rapture" (in the Paulinian sense of the mystic) as well as the firm connection with the verb harpázein, as found in Greek literature from Homer to Byzantian time, so that harpagmós is to be understood as "the being caught away by a divine servant or God himself to an existence in heaven with God or the gods."

I also tried to show the consistency of this explanation with the doctrine of Paul and the Old Church.

Of course, I thought that this interpretation of harpagmós was a completely new idea.

But after "An Ancient Misunderstanding" had been printed, a German-Danish scholar, who had partly been my pupil, Dr. Heinrich Roos, of the University of Copenhagen, drew my attention to the following passage in the Dictionnaire de la Bible, Supplément V (Paris 1950) in the article kenose: col. 24. "Nous citons ici pour mémoire l'opinion d'un théologien russe orthodoxe, dont nous devons la connaissance á M. L. Žander. Il s'agit de P. Florensky, Ne voskhistchenie nepstcheva, Sergiev Posad, 1915, p. 55, et dans la revue Bogoslovskij Vestnik [= Messager de théologie], 1915, n. 7-8. L’auteur rapproche ópтаүнós de II Cor. XII, $2 \dot{\alpha} \pi \pi \gamma \gamma \eta$ le "rapt" mystique de S. Paul, et l'entend non d'une usurpation, mais plutôt d'une élévation, d'un ravissement; son état d'égalité avec Dieu était pour lui non une chose désirée, qu'il pouvait atteindre ou usurper, mais un état naturel qu'il a délaissé pour prendre la forme de l'homme."

From the University Library of Helsinki-to which books
printed in Russia were statutorily delivered until the independence of Finland-I borrowed the relevant volume of this periodical, the title of which is "The Theological Messenger", and I read the article which extends over 50 large pages and is called Ne vosxiščenie nepščeva, i.e. the translation of the Greek oukh harpagmòn hēgēsato. I read it and translated it into German, but since my knowledge of the Russian language is indeed slender, I found it a decidedly great help to consult a rough translation made by a friend and pupil, Mr. Georg Sarauw.

The contents are as follows:
Father Florenskij sets out (512-517) by mentioning that harpagmós may be understood in its bad sense in malam partem as "robbery, rapine, ravage", defined as "an unjust appropriation of something that does not belong to the appropriator'".

Only something conformable to one's nature, a throne, a title, rule over others, some possession, may be appropriated-possibly by "robbery".

But-Father Florenskij quotes Chrysostomos-man cannot appropriate anything in order to be like an angel, a horse cannot appropriate anything to be like a man.

Equality with God cannot be appropriated at all-not by Christ since He (who, according to St. Paul, is in the form of God) already possesses equality with God, and not by a human being, for equality with God is against and above man's nature.

How could St. Paul then contemplate ascribing to Christ this attributive of robbing equality with God?

The interpretation has been given that this "thought it not robbery to be equal with God" was an expression of Christ's humbleness. But how can a denial of an impossibility be an expression of humbleness?

No, harpagmós must be understood in its good sense, in bonam partem. It must stand for something good: something which in a person other than Christ would be something good, so that when its presence in Christ is denied, this serves to emphasize His difference from other beings, its absence in Him is a sign of His divinity.

The verb harpázein and its derivations can be used in a good sense "clutch and vigorously embrace". This is how St. Paul uses it in the Second Epistle to the Corinthians, chapter 12,
verses $1-5,{ }^{2}$ telling how he himself was caught up to the third heaven, to paradise, i.e. relating a mystical experience of being caught up.-Father Florenskij attaches importance to this lastmentioned nuance "up".

Human beings may covet being caught up, but not Christ.
When it is said about Christ that He did not consider becoming equal with God in being caught up, this is a negative complement to what is said positively immediately before this, that He was in the form of God.

Christ was in the form of God; so in His case there could be no question of being caught up to obtain equality with God.

The mystic covets equality with God in his ecstasies. There can be no question of this in the case of Christ; He possesses divinity.

In a second chapter (517-533), Father Florenskij now tries to prove that, from the time of the ancient Fathers of the Church to the end of the Middle Ages, there was a widespread use of harpázein and its derivations to signify the highest stage of the mystical ecstasy.

He mentions twelve, to some extent detailed, and greatly interesting passages ${ }^{3}$-most of them in Greek-from the Alexan-drian-Jewish Philon (1); approximately A.D. 35 ; the NeoPlatonist Plotinos (2) in the 3rd century; one of the Fathers of the Church, Athanasios (3); the so-called statements of the Fathers (Apophthegmata Patrum) in the 4th century (4); Johannes Cassianus (5) from the 5th century (in Latin); Nilus Sinaiticus, also from the 5th century (6); Johannes Moschus (7) and

[^47]Johannes Climacus (8) from the 7th century; Isaak the Syrian from the 8th century (9); Simeon Neos Theologos from the 11th century (10); Gregorius Sinaita from the 13 th century (11); to Nikolaos Kabasilas from the 14th century (12).

Most of this is lucidly and convincingly presented upon the basis of the tradition of the Eastern Church; particularly interesting are the two oldest, Philon and Plotinos, as both of them have
 $\lambda \dot{\cup} \vartheta \eta \nu$, ego in coelum raptus sum ... (Apophthegmata patrum, Migne PG 65, 409 A ).
(5) Pio Domini nostri munere memini me in huiusmodi raptum frequenter excessum, ut obliviscerer me sarcina corporeae fragilitatis indutum, mentemque meam ita omnes exteriores sensus subito respuisse, et a cunctis materialibus rebus omnimodis exsulasse, ut neque oculi neque aures meae proprio fungerentur officio; et ita divinis meditationibus ac spiritualibus theoriis animus replebatur, ut saepe ad vesperam cibum me percepisse nescirem, ac sequente die de hesterna absolutione jejunii penitus dubitarem . . (Joannes Cassianus, Migne Patrologia lat. 49, 1130 B1131 A).






 ŋ̀ $\alpha$ ̉ cus, Migne PG 79, 1004 A-B).

 agere, sed cum maturo consideratoque judicio, et magna longanimitate procedere. (Johannes Moschus, Migne PG 87 III, 3016 C).

 Tò $\delta \dot{\varepsilon}$ taútทs té̀દıov $\alpha \rho \pi \propto \gamma \grave{\eta}$ Tpòs Kúpiov, raptus in Deum. (Johannes Climacus, Migne PG 88, 1132 D ).
 Florenskijs note 44).

 $\dot{\alpha} \rho \pi \alpha \dot{\propto} \times \eta$ ó voũs toũ. (Simeon Novus Theologus, Florenskijs note 46).





 Migne PG 150, 1277 C).





 то́тท $\nu$ ơvтı $\lambda \alpha \mu \beta \alpha ́ v o v t \varepsilon s . ~(N i c o l a u s ~ C a b a s i l a s, ~ M i g n e ~ P G ~ 150, ~ 714 A-B) . ~$
the direct juxtaposition of harpástheis "being caught up" and enthousiásas "having been made divine". In the case of Philon it must further be understood that the passage is found in his book "On contemplative life", which describes an asceticmystic Jewish community; this was, however, from the 3 rd century on actually taken by the Fathers of the Church to be a description of one of the oldest Christian communities. In the catalogue of the Danish Royal Library Philon is quite simply to be found under "Fathers of the Church"' And Father Florenskij may have been of the same opinion.

Philon's book is older than any of the epistles of St. Paul, and the question whether St. Paul may have been influenced by Jewish-Alexandrian circles-in practice by Philon-is probably still open. We can only guess as to what happened during the years that St. Paul spent after Damascus in "Arabia" (Gal. 1,17).

The pagan Plotinos (3rd century) was-like Philon-from Alexandria (although he spent the last decades of his life in and near Rome). It is no doubt a reasonable assumption that he was not unfamiliar with Jewish-Christian thoughts (his teacher, Ammonios Sakkas, is considered to have been originally a Christian and is reputed to have been the teacher of Origenes too) but how much this meant to Plotinos is perhaps still an open question. Father Florenskij probably thought it possible to group the thoughts of Plotinos among the ideas of Christian philosophy.

In Chapter III (533-554), Father Florenskij now tries to compare such "carrying off to some other world" with general human ideas as well as with ideas characteristic of Ancient Greece.

He seeks his first comparison upon a folkloristic basis-which seen from the point of view of the history of learning is probably characteristic of the beginning of the 20th century. In particular he quotes-at second-hand-a book from 1769 by L. F. Rømer, a government official in what was then Danish West Africa, about the negroes, who believed that those who were sacrificed to the fetish were carried away during the sacrifice by a mysterious storm. ${ }^{4}$

[^48]He treats the comparison with ancient Greek ideas far more thoroughly. He relates how pagan Greeks in antiquity had a double conception both of death and of man's chance in encountering death. Already in Homer, death may generally be taken to mean precipitation into an underworld of shadows, but for the elect there is also the chance of being carried off or caught up from this world to life with the gods, especially to blessed life with the gods, as happened to Ganymedes and Kleitos. Being thus caught up does not imply decay of the body, and there is a possibility of returning from the other world.

Much later, at any rate after the Persian wars, the idea develops that in dying most human beings do indeed make a precipitous entrance into an unknown world, where those who die ignorant must laboriously try to adapt themselves as does a new-born child to this world. The elect, however, have obtained an intimate knowledge of the other world and they have transmitted their knowledge to priests, who in the mysteries, e.g. the Eleusinian mysteries, have established actual schools in the art of dying, so that when the initiated wake up after the faint of death, they know how to behave, know the cross-roads and paths in the other world.

As an aside, I may add that during Antiquity ideas of the topography of the other world developed, presumably from a centre in Iran, from where they arrived primarily in Alexandria and Christian Egypt (a major writing on this subject is the apocryphal Vision of St. Paul from the 2nd or 3rd century). From here, accounts of visionary travels in the other world were passed on to Byzantium and from there to Russia; some found their way to the West (especially to Ireland) and some were later taken over by Islam. During the late Middle Ages influence from Ireland and from Islam converged in Spain, France, and Italy, until the literary culmination was reached with Dante's Divina Commedia, the magnificent, visionary voyage of discovery, appearing approximately one century before the voyages of discovery in the real world began, some from China and some from the Iberian Peninsula.

Father Florenskij gives more detailed treatment to the ideas of being carried off, caught up, to the other world; he maintains that the Greeks imagined that this happened either by a storm
or a whirlwind (thyella from the verb thyein which has the double meaning of "rushing along like a stormwind" and of "sacrificing") or - especially during most ancient times-by the action of the harpies. ${ }^{5}$ The word harpyia has the same root as harpagmós, and it means a female being who violently clutches something and takes it with her (in German "die Rafferin"). Father Florenskij points out that the original function of these beings was that of carrying human beings off to the world of the gods, and that not until some time during Antiquity did they become horrifying, defiling beings similar to birds of prey. The old function is known especially from the Odyssey, the new function from e.g. the Argonauts' expedition. In the Odyssey both Telemakhos and Eumaios complain that they know nothing for certain about Odysseus; if he was known to be dead he might be given a funeral in an honourable manner, but he has probably been carried off by the harpies. ${ }^{6}$ The Argonauts, however, had to protect the blind King Phineus, who had the gift of prophesy and who, against the wishes of the gods, had helped the Argonauts on their way. They had to protect him against the harpies, who defiled his food at the command of the gods. ${ }^{7}$ The storms competed with the harpies: Penelope despaired at the absence of Odysseus and the unwelcome attentions of the suitors; she wished to be either struck by the arrows of the goddess of death or carried off by the storms. ${ }^{8}$ In his dialogue "Phaidros", Plato gives an unforgettable account of the myth about the north wind, Boreas, who carried off the virgin Orythia from the Acropolis. ${ }^{9}$

But Father Florenskij is wrong when he also finds an association with the myth of Orpheus and Eurydike in the Underworld. For one thing, the antique etymology which derives the name Orpheus from the same root as harpagmós, harpázein,

[^49]hárpyia is false, and for another the Orpheus legend does not deal with ascension into heaven, but descension into the underworld.

In Chapter IV, Father Florenskij also attaches doubtful importance to some antique ideas contending that not only Boreas was found in the mountain caves of Macedonia, Thrace and Skythia, but also the harpies were found here, and establishing that these regions were the special sites of mystic cult.

Reverting to the text, Father Florenskij maintains that in the Epistle to the Philippians, chapter 2, verse 6, the meaning of "mystic carrying off/mystically being caught up" is both clear in the context and deeply motivated, and he asks why St. Paul has found particular reason to stress to the community of Philippi in Macedonia that Christ's equality with God was not caused by his being mystically caught up. Stressing all the miraculous accounts in the Acts, chapter 16, of how St. Paul and his companion, Silas, managed to reach Philippi, he is of the opinion that the Philippians lived in the heart of a region full of mysticism and mysteries, so that they might possibly err and believe that Jesus Christ was like one of the initiates in the mysteries (even if the highest initiated being), like a mystic who is initiated in ecstasy, caught up, to be like God, whereas Christ is himself of divine nature.

I would consider this a theological over-interpretation.
And the same is true regarding the following argumentation: just as in the mystic experience, the experiencing subject and the experienced object are united, the interpretation of harpagmós as "being mystically caught up" is said to concur with both the active raptus "snatching, robbery", and the concrete meanings res rapta and res rapienda "what has been carried off or is to be carried off". He contends that details may be left to the philologists. This is self-contradictory, and is probably only intended to cover him against ecclesiastical attacks for heresy.

Suffice it to stick to Father Florenskij's own judicious summation: Men may strive to be ecstatically caught up to be equal with God. The Son of God cannot do so, His nature is divine. The Son of God did the opposite: He humbled himself $\varepsilon \propto u t o ̀ v$


The strength of this treatise is to be found in the logical,
severe criticism of the "criminal" interpretation of harpagmós in former times; in the insistence upon the "good" meaning; in the demonstration of the long Christian tradition in the Eastern Church of using the verb harpázein and its derivations about being mystically carried off or caught up; and in the demonstration of the ancient Greek background.

In all essentials, the result is the same as in my treatise appearing half a century later. There is also accordance in the argumentation. Father Florenskij has the great advantage of having included Philon among the passages quoted in support of the theory, and the harpies. I have the advantage of having been able to lean on Greek lexicography and on the grammatical work of classical philologists throughout an additional fifty years.

Who was the author?
Pavel Alexandrovič Florenskij was born in 1882 and died-perhaps-in 1948. ${ }^{10}$ He was born in Tbilisi, where his father Alexander taught mathematics and biology in a high school for girls; his mother Ol'ga Pavlovna came from an Armenian family. Pavel started with the same interests as his father. Together with a schoolmate, A. Elčanin, he wrote an article on the illuminating power of the glow-worm, which is said to have been printed in a German zoological paper in the 1890's. ${ }^{11}$ In 1900 he matriculated at the University of Moscow to study mathematics. He finished his studies in 1904 and is said to have been offered a grant which would enable him to become a teacher at the University. Instead he wrote, in 1905, a political pamphlet, 'The Voice of the Blood' (Golos krovi), on the suppression of the revolution in Moscow.

Even while studying mathematics and physics, he had also occupied himself with the humanities, classical philology and archaeology. In 1905 he was inscribed at the Theological Academy in Moscow, graduated in 1908, and started lecturing the

[^50]history of philosophy in 1909. In 1911 he married the sister of a friend and was ordained a priest in the Orthodox Church. During the following six years he continued to teach at the Theological Academy and published articles and treatises-mostly in the forementioned journal, The Theological Messenger-shorter ones such as Lekcija i lectio, on the old-fashioned university lectures; Praščury ljubomudrija, 'The wisdom of our forebears', on the most ancient Greek philosophy; Naplastovanija egejskoj kul'tury, 'Stratification of Egean culture', on the recent results of Evans' excavations on Crete; and longer works such as Smysl idealizma, 'The meaning of idealism', on the development of Platonism from antiquity to the beginning of the 20th century - 200 pages of comprehensive learning. He quotes the book on Shakespeare by my countryman Georg Brandes, and a nice treatise by the young Viktor Žirmunskij on German literature about 1800. The forementioned treatise on Phil. 2,5 belongs to this series.

In 1914 he published his main humanistic work, Stolp $i$ utverždenie istiny, 'The pillar and ground of the truth'-the
 $\omega \mu \alpha$ Tท̃ $\left.{ }^{\alpha} \lambda \eta \eta \varepsilon i ́ \alpha \varsigma\right)$, a work several hundred pages long and arranged in twelve letters. ${ }^{12}$

The articles and treatises I have read partly in Russian, the great book I have only seen in a German translation from the 1920's.

This book is the real expression of Florenskij's own religious philosophy. He was a follower of Solov'ëv, an adherent of what is sometimes called a Russian religious renaissance about 1900. He was likewise averse to the Orthodox High Church and to the dissolution of the ecclesiastical forms in the life and doctrine of Lev Tolstoj.

After the Bolshevik revolution in 1917, the Theological Academy was closed. Florenskij had never completely given up his scientific interests; in 1916 he published an article on the theory of numbers. He now obtained permission to give some

[^51]courses in mathematics and physics at the Polytechnical High School. His transition from the humanities to the sciences is neatly marked by some courses which he gave at the Academy of Arts on Obratnaja perspektiva 'Reverted perspective'.

Soon he went more decidedly over to the technical sciences and became a professor of electrophysics at the Polytechnical High School in Moscow. Moreover, at the beginning of the 1920's he was one of the top experts in the grandiose electrification of the Soviet Union and is mentioned as such in the Soviet Encyclopedias. He was responsible editor-in-chief of important parts of the Soviet Technical Encyclopedia. Although he wrote many technical articles, especially on electrophysics, he never gave up scholarly work, and as time went on he found opportunities for writing on the progress of science proper. He wrote not only reviews, but also independent articles on quantum mechanics (Max Planck), the theory of relativity (Einstein), nuclear physics (Niels Bohr and others).

He was long a prominent figure in social and scholarly circles in Moscow. Several memoirs mention his Armenian long nose, his peculiar gestures, his abrupt transitions from muteness to proclamations of scientific news, scholarly opinions, mystical belief.

In the NEP period he was untouched being one of the bourgeois experts. Moreover he found special goodwill because he remained in the Soviet Union in 1922-the year of the Rapallo treaty between the Soviets and Germany-when all the religious philosophers were offered their passports and most of them departed (e.g. Berdjajev, Bulgakov).

But Florenskij overdid it. In 1926 he appeared to lecture in the Physical Society of Moscow in his sacerdotal robes! This insolence was forgiven, but certainly not forgotten. From 1931, when Stalin began to persecute scholars, the star of Florenskij started to decline. His name disappears from the newspapers and the encyclopedias. It became fatal that he had had the special protection of Buxarin, who had used Florenskij as his personal expert on scientific matters.

When Stalin crushed Buxarin and had him executed, Florenskij also fell. He was deported to Siberia for hard labour. Since 1938 there is no definite information about him. He is
said to have been killed accidently when felling trees, but the exact year of his death is unknown. He was still alive in 1941, and some say that he lived till 1948 (when he would have been 66 years old). Others contend that he died in 1944.

The uncertainty as to the time of death of this prominent man is no credit to the regime of his country. There can be no doubt that P. A. Florenskij was an outstanding scholar, a quite remarkable personality in the spiritual life of Russia between approximately 1910 and 1935, and that he should be more widely known in the West-not only by philologists accidentally concentrating on problems of Pauline christology.

Let me finish with some words from the treatise which P. A. Florenskij wrote on Phil. 2,6:
"Have you ever climbed the high mountains-up to the border of the snow or even higher?

Then you must have understood, or at least felt a presage of the enthusiasm that fills the soul as a virile and controlled rapture (vosxiščenie), ready at the next moment to catch the soul, which is worshipping on the heights, and let it dissociate in the azure.

You will then also know that neither fatigue nor afflication nor anxiety shall subsist. Pure air, high and refreshing, shall pervade and penetrate your body, till it glides over the towering rocks, half weightless, as carried away by a mystical tempest. In such a time, which is full of eternity and shorter than a second, the lassitude of the flesh disappears, the vanity of existence, the mists of the soul, the miasma of evil passions that had been accumulated through months and years. And the sun, purified in the ether, pierces your heart and kills the serpent that had hidden there. And the virginal, illuminated soul has fallen in love with the light coolness of the royal peaks, and it is caught off to the creative cave by a rapture akin to the ether of heaven, descending from the hyperboreans, longed for by nations now corrupt, petty, mercenary."

Do you hear, even through my poor English, the beauty of the wings of medieval eternity? Of the Russian spirit of Mission?

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# STONE SHARES OF PLOUGHING IMPLEMENTS 

 from the Bronze Age of SyriaA Contribution to the Early History of the Ard-Plough



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# STONE SHARES OF PLOUGHING IMPLEMENTS from the Bronze Age of Syria 

A Contribution to the Early History of the Ard-Plough

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## Synopsis

In a study from 1966 Axel Steensberg identified some triangular stone-blades from the Bronze Age of Syria as ploughing implements, pulled by traction ropes similar to a Neolithic tool from Satrup in Angel, published by the same author in 1973. Other specimens from the National Museum of Aleppo are analysed in the present paper. The wear marks on them shows that some of them have been tilted or slanted as mentioned in the Agricultural Calendar of Nippur, so that the field must have been ploughed in Lands or Strips. Two other blades of basalt are identified as ard-shares, one for making water-furrows, the other for covering the seed. The ploughing systems are compared with a pattern from Pre-Harappan time in India and recent patterns of ard-ploughing in Iran and India.

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## Introduction

Ploughing has always played a dominant role in the annual farming cycle. Therefore, ploughing implements have interested ethnologists, archaeologists, geographers and historians ever since attention was first paid to the improvement of agriculture and its equipment during the 18 th century. Especially during the last hundred years many theories have been propounded concerning the origin and earliest development of the plough.

The earliest ploughing implements were not proper ploughs in the modern sense. They had a symmetrical share and could not plough the soil into ridges. Using a modern term we call them ards or ard-ploughs, a derivation of the Latin aratrum. The oldest illustration of an ard is a pictograph from Uruk-Warka IV b, dated c. 3000 B.C. (Fig. 1). It shows a type with two handles and a beam consisting of two parts tied together. ${ }^{1}$ From c. 2000 B.C. this type of ard was equipped with a seed funnel (Fig. 2), and it has been continuously in use in Mesopotamia and western Iran up to our own time. ${ }^{2}$


Fig. 1. Pictogram for Ard-Plough. Uruk-Warka IV b, c. 3000 B.C. (after Salonen Pl. III,1).

[^52]

Fig. 2. Cassitic Ard with Seed Funnel, c. 2000 B.C. (after Salonen Pl. VI,1).

Another ard type with a horizontal sole, to which a beam was attached in front and a stilt handle at the rear end, is known from Cyprus c. $2200-2100$ B.C. (Vounous). ${ }^{1}$ It appears that a third type, the Døstrup type, is illustrated by a clay figurine from Byblos, north of Beirut, dated to the third or second millennium, and now in the National Museum of Lebanon in Beirut (Fig. 3). It shows a pair of oxen yoked together and a beam curving down along the left leg of the right oxe. Unfortunately, the driver has lost his right arm with which he controlled the implement, and it is therefore difficult to exactly determine the type of ard. ${ }^{2}$

An agricultural calendar found in Nippur and dated c. 1700 B.C. informs us how carefully the fields were prepared for sowing with weeding-hoes, pick-axes and clubs, and also that two different kinds of ard-plough were used, the bardil-ard for breaking the ground and the šukin-ard with its seed-funnel for sowing the barley. Furrows were ploughed across or diagonally to those made in the previous season, and the straight furrows made the borders of the fields into tulu-borders, which must mean elevated balks around the individual fields. In the same connection this calendar also mentions parikatu-furrows, slanted furrows. This is interesting because the wear on some of the tools discussed below shows

[^53]Fig. 3. Clay Figurine from Byblos 3rd-2nd millennium (after M. Dunand, Fig. 236).

that they were held at a slant. After sowing, all clods had to be removed so that the sprouting seeds could break through the surface of the ground. Finally, the fields were irrigated up to four times. ${ }^{1}$ However, in spite of the figures given by Herodotus and Strabon, the harvest did not exceed $10-15$ fold, and sometimes less. ${ }^{2}$

In the Syrian Bronze Age natural conditions differed of course, from those of the Euphrates-Tigris valleys. Therefore the set of tools would also have differed to some degree. On the other hand the corn fields were probably irrigated where access to water allowed this practice. It is likely that the ard-plough of Byblos was already at that time used to cover the seed, but it may not have been universal; or rather man-pulled implements seem to have existed together with ards pulled by oxen, as I demonstrated in an article in Berytus in $1964 .^{3}$ Actually, in Early Sumerian texts


Fig. 4. Votive spade (marru) belonging to the God Nabu, Susa (after Brentjes, Fig. 7).

[^54]

Fig. 5 a-b. Triangular basalt blade. Hama No. 3 F 524. Nat. Mus. of Aleppo.
the term for spade, mar, is sometimes connected with the term for ard, apin, and at that time mar was included in the name of the god Nin-mar, the Lord of the spade. Probably the later god, Marduk, inherited his emblem, the marru, from the old Nin-mar. ${ }^{1}$ A votive marru (Fig. 4) with the inscription: "Ma-(a)r-(r)u ša il na-bi-i" (Marru belonging to the God Nabu) was found in the Susa excavations. ${ }^{2}$

## I. The Rope-Traction Ards from Hama and Mishrifé Qatna in the National Museum of Aleppo

In 1962 Professor H. Ingholt urged the present author to inspect some blades of basalt and limestone found at Hama and Mishrifé Qatna in order to determine how these stone blades had been used. Already the excavator of Mishrifé Qatna, le Comte Du Mesnil du Buisson, had mentioned that, according to René Dussaud, they would have been operated by two persons, one steering the

[^55]
spade and the other pulling it with a rope like the traction spades of the Arab world to-day. However, the present-day implements are stuck into the soil and pulled up while the workmen move sidewards spit by spit. An inspection of the wear marks on the blades proved that they had been pulled continuously through the soil by ropes producing a very distinct gloss on the shoulders of the blades. Moreover, it could be stated experimentally that wear marks of the same kind were produced at the same places on a replica made of hard limestone; in addition, wear marks similar to those of the originals were made on other parts of the replica used for experiments.

The article in Berytus was based exclusively on an inspection of the specimens in the Department of Antiquities of the Danish National Museum, while the artifacts in the National Museum of Aleppo were only discussed on the basis of the registration file. Therefore the present author visited the latter museum, together with Mrs. Grith Lerche, in 1965 and 1968 in order to inspect the material personally. On the first occasion the museum was being reconstructed, but thanks to the director, Mr. Feisal Seirafi, and his staff we had an opportunity to see the items. On the second


Fig. 6 a-b. Triangular basalt blade. Hama No. 3 A 181. Nat. Mus. of Aleppo.
visit Mr. Seirafi provided us with a microscope for a closer observation of the wear marks on two specimens. The author is grateful to the Carlsberg Foundation, who made those journeys possible.

## A. Description of Seven Stone Blades from Hama and Mishrifé Qatna

1) Hama No. 3 F 524 (Fig. $5 a-b$ and Plate $I a-b$ ). ${ }^{1}$

A triangular blade of basalt. Breadth: 27.8 cm , height: 19.4 cm (including hafting pivot). Length of hafting pivot: 1.5 cm , breadth at middle: 4.8 cm . Maximum thickness of blade: 2.1 cm . The front is covered with a weathering-crust that is damaged along the edge to the right, the facet of which is also irregular from damaging. To the left of the hafting pivot further damage has obliterated all

[^56]
traces of wear. Traces of wear are pronounced on both side-edges forming bevelled facets in the weathered surface. The right side of the hafting pivot is highly polished, and the most brilliant gloss is in the angle formed by the pivot and the shoulder of the blade. The back of the blade is also covered by a weathering-crust, but this has been removed by retouche mostly along the edge to the left and the corresponding shoulder, less along the opposite sideedge. Signs of wear are distinct at c. 3 cm from the point and on an up to 4 cm broad band running from the point along the right edge of the tool, in such a way that the tool has been tilted slightly towards this side. The gloss of wear is visible only on the left shoulder, as mentioned above. Section from hafting pivot to point: Low on the back is a facet, a kind of "sole", at the point. The angle between this and the rear surface of the blade is about $15^{\circ}$. Date: c. 2250 B.C.
2) Hama No. 3 A 181 (Fig. $6 a-b$ and Plate Ic-d). ${ }^{1}$

Triangular blade of basalt. Breadth: 27.1 cm , height: 20.5 cm

[^57]

Fig. 7 a-b. Triangular limestone blade. Mishrifé Qatna No. 379. Nat. Mus. of Aleppo.
(including hafting pivot). Length of hafting pivot: 2.2 cm , breadth at middle : 3.8 cm . Maximum thickness of blade: 2.4 cm . The front is covered with a weathering-crust and is shaped along the upper edge and on the hafting pivot. Traces of wear: Pronounced on both side-edges forming bevelled facets in the weathered surface. The right side of the hafting pivot (the left on Fig. 6a) is smoothly polished, regularly concave in the plane of the blade, but convex in the opposite plane. Obviously this gloss was produced by a traction-rope, while the blade moved from side to side in a more or less oblique position. Wear is less pronounced on the other side of the pivot, and the groove here is not quite as regularly curved as the other. The back of the blade is also covered with a weathering-crust, removed by retouche mostly along the right edge. Signs of wear are most distinct at $c .4 \mathrm{~cm}$ from the point and fade out c .13 cm along the right edge in such a way that the tool must have been slightly tilted to this side. Gloss of wear on both sides of the hafting pivot. Section from hafting pivot to point: Low on the back is a facet, a kind of "sole", at the point. The angle between this and the rear surface of the blade is c. $30^{\circ}$. Date: c. 2000 B.C.

3) Mishrifé Qatna No. 379 (Fig. $7 a-b$ and Plate II $a-b$ ). ${ }^{1}$

Blade of hard, sound limestone of almost semi-crescent shape. Breadth: 31.5 cm , height: 17.0 cm (including hafting pivot). Length of hafting pivot: 6 cm , breadth at middle: 4.7 cm . Thickness of blade: $3-4 \mathrm{~cm}$. The front is a cleavage face; it is shaped along the upper edge and two ends as well as along the hafting pivot. The lower edge is very much resharpened, originally it was probably pointed like the other specimens. Pronounced wear facet with distinct wear marks parallel to the axis of the blade. On both sides of the hafting pivot are polished concavities, worn from the traction rope. The back is shaped by chisel strokes, only leaving the original weathering-crust in the middle and on a small spot to the left. No wear marks preserved along the edge, but concavities produced by the traction rope on both sides of the pivot. Right end broken off (after excavation?) and glued in place again. The section of the blade is almost symmetrical. Because the artifact has been resharpened many times and lost its original point, it is rather difficult to determine which side is the front and which is the rear.

[^58]

Fig. 8 a-b. Triangular limestone blade. Mishrifé Qatna No. 380. Nat. Mus. of Aleppo.
4) Mishrifé Qatna No. 380 (Fig. $8 a-b$ and Plate IIc-d). ${ }^{1}$

Triangular blade of hard, sound limestone. Breadth: 25.9 cm , height: 19.4 cm (including hafting pivot). Length of hafting pivot: 2.6 cm , breadth at middle: 2.5 cm . Maximum thickness of blade: 2.6 cm . The front is covered by a natural weathering-crust. Shaped along most of the top edge. Slight gloss on protruding edges, but not striated as on the edge facets below. Traces of wear are particularly visible on the right side of the hafting pivot (to the left on Fig. 8 a), and on both side-edges of the blade forming bevelled facets, the edges of which are polished and worn with striation parallel to the middle axis of the blade. The back of the blade is a cleavage face. Most signs of wear are concentrated on the lower point, about 1 cm wide; but striation is visible at the edges parallel to the central axis of the blade. The gloss produced by the traction rope is more pronounced on the right side of the hafting pivot than on the other. The blade is straight in section. The angle between the "sole" of the back and the median line of the blade

[^59]
is c. $30^{\circ}$. In section, the two edges of the blade are not straight but curving.
5) Mishrifé Qatna No. 381 (Fig. $9 a-b$ and Plate III $a-b$ ). ${ }^{1}$

Triangular blade of hard, sound limestone. Breadth: 26.5 cm , height: 20.0 cm (including hafting pivot). Length of hafting pivot: 3 cm , breadth at middle: 3.7 cm . Thickness of blade: c. 2.5 cm . The front has an oval cleavage surface at the middle and two raised surface areas, one of which, at the pivot, is worn brilliant from a hafting device; the other one, near the right edge (the left on Fig. 9 a), may also be slightly polished. There is pronounced wear on the facet of the left side (the right on Fig. 9a) as if the blade had been held in a slightly tilted position. On both sides of the hafting pivot there are polished concavities, the left of which (the right on Fig. 9a) is damaged and broken. The back surface has been produced by natural cleaving, and the hafting pivot and

[^60]

Fig. 9 a-b. Triangular limestone blade. Mishrifé Qatna No. 381. Nat. Mus. of Aleppo.
both shoulders have been fashioned by chisel strokes. Wear, produced by pulling through the soil, is only visible up to c. 4 cm from the tip. Gloss produced by the traction rope is seen on both sides of the pivot, as mentioned above. The section is slightly curved, but almost symmetrical.
6) Mishrifé Qatna No. 382 (Fig. $10 a-b$ and Plate IIIc-d). ${ }^{1}$

Triangular blade of basalt. Breadth: 29.4 cm , height: 20.7 cm (including hafting pivot). Length of hafting pivot: c. 4 cm , breadth at middle: c. 4.5 cm . Thickness of blade: c. 3 cm . The front is covered by a weathering-crust except for a triangular part from the tip along the edge to the left (the right on Fig. 10a) that has been shaped by parallel chipping. There are broad facets along both side-edges with marked parallel striation from wear in the soil. The tip is damaged. Both shoulders have been fashioned by chipping. Brilliant gloss, produced by the traction rope, is found on the left side of hafting pivot (the right on Fig. 10 a). The gloss

[^61]
on the opposite side of the pivot is somewhat damaged. Most of the back is also covered by a distinct weathering-crust. Soil-wear is only visible as a parallel striation up to c .3 cm from the tip, confined by a line running slightly obliquely upwards to the right edge, indicating that the tool was tilted towards this side. There is gloss from the traction rope on both sides of the hafting pivot, and from the hafting device on a small area below the pivot parallel to its left edge. The section is slightly curved at the rear, and there is a "sole" facet at angle of c. $30^{\circ}$ to the median line.
7) Mishrifé Qatna No. 383 (Fig. $11 a-b$ and Plate IV $a-b$ ). ${ }^{1}$

Triangular blade of hard, sound limestone. Breadth: 25.5 cm , height: 19.5 cm (including hafting pivot). Length of hafting pivot: 2.3 cm , breadth at middle 4.5 cm . Thickness of blade: c. 2.5 cm . The front is a naturally cleaved surface. The shoulders and hafting pivot are shaped by chipping. On both sides of the pivot there is distinct gloss produced by the traction rope. Along both

[^62]

Fig. 10 a-b. Triangular basalt blade. Mishrifé Qatna No. 382. Nat. Mus. of Aleppo



Fig. 11 a-b. Triangular limestone blade. Mishrifé Qatna No. 383. Nat. Mus. of Aleppo.

side-edges there are narrow facets striated by wear in the soil. The tip is damaged. The back is unevenly shaped by cleaving. The tip is worn up to c .5 cm from the broken point. The section is slightly curved with a "sole"' facet at c. $15^{\circ}$ to the median line.

## B. Hafting and Use of the Syrian Stone Shares

From the wear marks on the rear side of the tips of the stone blades described above, it is evident that they were pulled continuously through the soil, resting on this part of the tip as a kind of "sole". Moreover, the traction ropes have produced distinct marks of wear on both sides of the hafting pivots. Similar wear marks can also be observed on the artifacts from Hama in the National Museum of Copenhagen.

However, the blades in the National Museum of Aleppo have furnished us with new evidence in two respects: Wear marks from the hafting device on the limestone blade Mishrifé Qatna No. 381, and signs that some of the basalt blades have been tilted to the right during work in the fields.

Concerning the hafting device, the wear marks mentioned correspond well with the mounting suggested in Berytus 1964, and which proved to hold the blade firmly during ploughing experiments carried out in Denmark in 1962. This mounting consisted of two parts: One was a wooden block that grasped the shoulders of the blade enclosing it in a groove. The other was a wooden shaft with a forked lower end so that its two prongs rested in grooves in the block grasping the blade. Two notches were cut in this block to allow the traction ropes to pass around the neck of the hafting pivot. The mounting was deliberately made strongly and clumsily so that it would not break during the experiments. ${ }^{1}$ If constructed of properly dried wood of good quality, it could be made more elegantly as indicated on Fig. 12.

The other observation made on the basalt blades in the Aleppo Museum-that these implements were tilted when ploughing the soil-corresponds with the wear marks on the rear side of the basalt blade No. 3 H 45 in the National Museum of Copenhagen. ${ }^{2}$

[^63]This specimen is marked with an arrow-like figure, c. 12 mm long and 4.5 mm broad, carved into the basalt surface with doubleline contours. Actually this arrow-like figure can be nothing but the spade of the god Nin-mar, mentioned in the introduction, and it is carved in the same technique as the decorations on cylinder seals. ${ }^{1}$ Probably this excellently made specimen belonged to the temple of the god, and was consequently marked with his seal. Moreover, the figure may have been deliberately placed on the side to which the soil of the furrow was predominantly turned.

As stated above, "slanted furrows" were mentioned in the agricultural calendar of Nippur some $300-500$ years after the Syrian basalt implements were used. From prehistoric finds in Europe, we know that some ards were held tilted to the right-more rarely to the left. ${ }^{2}$ It is likely that the rope-traction ards of basalt from Syria-observed to have been tilted in the same way-were intended for raising small dividing balks in irrigated fields, making a single turn with the implement so that the soil was thrown up from both sides into a small ridge.


Fig. 12. Mounting device for a triangular blade of basalt or limestone used as a rope-traction ard (A. Steensberg).

[^64]The technique could have been the same as the author observed on irrigated plains in Central Iran (Fig. 19). The principal field was surrounded by permanent balks and one or two canals providing water. The farmer used the waterflow as a levelling instrument. Where it stopped, he made his secondary dividing balk. This secondary balk was made by spade, and in the following year he might change the direction of the balks in order that the plough furrows could cross those from the previous year. However, these small provisional balks could easily have been made by a traction spade, drawn sidewards, as they are actually made in Arabia. Or they could have been made by a rope-traction ard held in a slanting position like the Bronze Age ones found in Syria.

Of course, other explanations are possible. For example, when the basalt implement was used for covering the seed sown in the previous furrow, it would be an advantage if the soil mainly fell to one side. This would mean that the seed was sown in rows and the ploughing performed in "strips", because the ploughman did not alter the slant of his implement at every turn as usual, otherwise there would be no oblique wear marks on the artifacts. However, the blades without slanting wear marks-i.e. those of limestone-could well have been used in alternating positions. Or they could have been held in vertical position all the time, which was done in the experiment mentioned above. They would completely cover the seed sown in the previous furrow, and therefore the first explanation seems to be most likely.

## II. A Comparison with Neolithic Rope-Traction Ards from Satrup Moor, Schleswig

In Satrup Moor in Angeln tools were excavated from a layer dated in calendar years to c. 4200 B.C. Two of them were complete "spades" made of ash wood with a triangular blade cut out of the same piece as the shaft. Because the shafts had been shaped by burning in order to produce convenient handgrips, it is possible to determine how these implements were used. One of them was a convenient shovel, 132 cm long. The other was a traction ard (Fig. 13), 185 cm long, of which the blade had been
c. 20 cm . At the top of the blade were two perforations for traction ropes, and the lower handgrip was made $65-75 \mathrm{~cm}$ above the blade, while the groove for the upper (right) hand was made $85-90 \mathrm{~cm}$ above the blade, so that the two hands were placed close to each other, the lower one in undergrip, the upper one in overgrip. The free end of the shaft must have been firmly held in the operator's armpit, so that he could steadily steer the implement that was pulled through the soil by another person.

Replicas were made of both implements, and experiments proved that the short one could be used as a shovel as well as for winnowing grain, whereas the longer one could totally cover the seed sown in one furrow by the soil thrown up from the next furrow. ${ }^{1}$

The rope-traction ard from Satrup Moor was less heavy than the basalt and limestone specimens from Syria, and consequently it produced a shallower furrow. However, the furrows produced by the replica of the Syrian rope-traction ard were c. 10 cm deep, which is a suitable depth for the arid climate of that country, while the furrows produced by the Satrup specimen were $5-6 \mathrm{~cm}$ deep, which is the optimal depth for sowing in the wet climate of countries in Northern Europe.

The ploughing implement from Satrup could not, of course, break virgin ground. Nevertheless, renewed inspection of the other tools and fragments of artifacts found in the moor showed that there had been a type of rope-traction ard made

Fig. 13. A Neolithic rope-traction ard from Satrup Moor, Angeln (after Steensberg 1973).

[^65]
more in the fashion of the later ard type from Døstrup in Jutland, also used since time immemorial in Palestine. ${ }^{1}$

This specimen is fragmentary, only one half of the blade is preserved, 29 cm long and 4 cm thick. It seems to have been c. 12 cm broad, and it is pointed at the lowest 8 cm from both sides. An important feature, however, is that a "sole" can be observed similar to that on the stone blades from Syria. This sole is at an angle of c. $15^{\circ}$ to the median line of the implement, similar to some of the stone blades described above. Also the heads of the ards of Døstrup type are fashioned in this way having a kind of "sole" at the point on the rear side. Perhaps this facet could have been a result of resharpening the edge and point of the blade?

The shaft of the Satrup implement is broken off 15 cm above the blade. But at the transition between blade and shaft is a narrow shoulder, c. 2 cm broad, in which there is a semicircular groove apparently made with a drill. This nearly 1 cm deep side-groove must have served as a bearing for the traction rope.

When this implement is published in the future, it is likely that more specimens of the same kind will be recognized as ropetraction ards for breaking ground, because the two types of implement from Satrup Moor just described used to supplement each other, also when the ard with a fixed beam for oxe-traction had replaced the rope-traction ard-the two types of ard known as the Døstrup and the Triptolemos type, respectively.

## III. Ard Shares of Basalt from the Syrian Bronze Age

A couple of years ago when I was presented with photographs of two basalt blades with symmetrically placed holes, from the National Museum of Aleppo, I guessed that they had been used in the same way as the blades of basalt and limestone mentioned

[^66]above. One of them, acquired in Khanāṣer, was published in my paper in Berytus (pl. XXIX). However, not having inspected the artifact itself at that time, I could not tell if it had the same distinct signs of wear at the rear side of the lower point-which would prove that it had been pulled like an ard. Now, having examined the items twice, I can describe and interpret them as follows.

## A. Description of the Blade Hama No. 3A 180 (Fig. 14 a-c and pl. V a-b)

Triangular blade of basalt. Breadth: 22.5 cm , height: 22.7 cm (including the two upright pivots). Lengtht of the pivots: 3.7 cm . Thickness of blade: 3.5 cm . The front: Along the two working edges is a clear, continuous band partly facetted by wear. The marks are parallel to the median line of the blade and seem most pronounced from c. 6 cm behind the point and onwards. Just below the pivot to the left along the edge a large piece has flaked off but the blade has been used subsequently. The upper edge between the pivots has no signs of wear on the front. The two perforations almost in the middle of the blade are double-conical in section. They have strong marks of wear at the facets facing each other, i.e. the inward sides. If the blade had been pulled through the soil by traction ropes, such wear marks could not have been produced. They must have been caused by a rope that tied the blade down to a support on its rear side. The back: The working edges of the blade have marks of wear similar to those on the front side, increasing backwards to the most prominent wings of the blade. The wear marks are shallower than on the front, but more glossy. There is no wear on the tip in front. The area between the perforations, from $4-5 \mathrm{~cm}$ above and down to $3-4 \mathrm{~cm}$ away from the tip, is rather smooth. The facets of the perforations are mostly worn in the direction towards the tip, i.e. the front of the blade. Moreover, the wear is most pronounced at the steepest part of the double-conical section of the holes, as it should be if the rope fastening the blade to the sole of an ard was pressed backwards when ploughing the soil. This would tighten the straps between the holes on the upper side and produce the wear on their inner sides, as mentioned under the


Fig. $14 \mathrm{a}-\mathrm{b}-\mathrm{c}$. Triangular blade with two pivots. Basalt. Hama No. 3 A 180. Nat. Mus. of Aleppo.

description of the front side. Moreover, the slightly facetted upper (or more strictly speaking: backward) edge of the blade has a distinct smoothness on the inside of both pivots at the rear side. Furthermore what is very important: there is no sign of wear at the rear side of the lower point of the blade such as could be noticed on all the blades of the rope-traction ards. The rear side of the blade is somewhat hollow in order to fit the rounded upper side of the sole or head of the tilling implement to which it was tied. This can be clearly discerned on the section in Fig. 14. Date c. 1900 B.C. ${ }^{1}$

## B. Description of the Blade from Khanāser in the National Museum of Aleppo (Fig. 15 a-c and Pl. VI a-d)

This basalt blade was acquired through purchase and is therefore undated. Breadth: 33.7 cm , height: 30.5 cm (including the two upright pivots). Length of the pivots: 7 cm . Thickness of blade: c. 4 cm . The front: Along the working edges is a facet that is c. 1.5 cm broad to the left, and 2.3 cm to the right. It is striated by wear parallel to the median line of the blade. To the left this band of wear shows distinct scratches right from the point and out to a distance of about 25 cm away from it, but from here until the outermost corner the marks become shorter and fainter, and are most visible only on the edge of the blade. To the right side, the striation of wear on the edge facet stops 17 cm away from the point, and for the next 13 cm wear marks are only observed on the edge itself. In one part of the facet, between c. 6.5 and 10 cm distance from the point, the striation of wear runs over the facet and onto the plane of the blade up to a width of c. 0.4 cm . About 15 cm from the point there are two perforations, double-conical in section, as on the last mentioned blade, c. 1.6 cm in diameter at the narrowest and $\mathrm{c} .3-3.5 \mathrm{~cm}$ in diameter across the brim of facets. In front of the perforations, the blade has a protruding "nose", as if the rope which tied them to the sole of an ard was to be protected from wear. This "nose" is

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Fig. $15 \mathrm{a}-\mathrm{b}-\mathrm{c}$. Triangular blade with two pivots. Basalt. From Khanāser. Nat. Mus. of Aleppo.


seen on Plate VIc. Wear is visible on the inner edges of the perforations as was the case with the other blade.

The back: This side is hollow, as shown on Pl. VId, so that it would fit well to the upper surface of the ard-sole or ard-head. Along the edge to the right is an up to 0.5 cm broad facet covered by wear marks. The other edge has wear marks only on the edge itself. A c. 2 cm broad piece has flaked off at the nose. Wear is visible all around inside the perforations, but it does not extend out onto the facet at the rear side of the blade. The fact that there is no facet along the upper part of the front to the right, and the fact that the surface is less raised than on the rest of the blade, suggest that this part, including the pivot to the right (actually the left one seen from the steerer of the implement), was redone
by a pick hammer. As a result of this process the original facet and its wear marks were destroyed, because they do not lack on the edge itself. The reason for the continuation of the striation onto the front side of the blade, in some areas from c. 6.5 to 10 cm from the point, must be that the facet is less marked here than along the rest of the edge.

Taking all facts into consideration, there is little doubt that this basalt blade was tied to the head or sole of an ard such as the one first mentioned. One may only wonder why the Bronze Age farmer made such a heavy share for his ard.

The furrow produced would not, of course, be 33.7 cm wide at the bottom, because the share must have stood at a certain angle to the surface of the soil in order to penetrate it to a proper depth. However, it is not likely that such a broad share was placed on a Triptolomos ard at a small angle to the soil, because it would work rather clumsily. Probably it was tied to the head of the stilt of an ard of Døstrup type as shown on Fig. 16. Even then it is difficult to believe that this ard could serve to cover the seed. The distance between the furrows would be at least about half a metre. It is more likely that it was used to make small canals or water furrows in an irrigated field.

## C. Conclusion

The large basalt blade from Khanāṣer could certainly not have been pulled by a man. It must have required a pair of oxen. The smaller one from Hama is more likely to have been pulled by hand. However, both of them prove to have been mounted as ard shares; therefore, both may also have been pulled by animals.

This being assumed, we need not conclude that both fitted the same type of ard.

As stated above, the heavy specimen was probably tied to the head of an ard of the Døstrup type that, according to S. Avitsur, goes back to Talmudic times at the end of the 2nd millenium B.C. It was especially well fitted to the rough soils of Northern Palestine and Syria (Fig. 16). A rock carving from Chilwa in Trans-Jordania from c. 200 B.C. shows that a "brace rider", a crooked piece


Fig. 16. Reconstruction of the basalt ard-share from Khanāṣer (A. Steensberg).
of wood, was already at that time inserted between the beam and the stilt in the upper corner of their junction. ${ }^{1}$ In fact, the same device, which should prevent the junction from breaking, is visible on a cylinder seal from Assur, dated c. 1300 B.C. ${ }^{2}$ Also a picture in relief on a cup from Tell Agrab, dated to the JemdetNasr period c. 2800 B.C., seems to demonstrate an ard with its brace rider, not a hoe, as B. Brentjes suggested, though the top of the stilt is missing. ${ }^{3}$

The small basalt blade, Hama 3 A 180, could have been fitted to an ard with a horizontal sole of the Triptolemos type (Fig. 17). If this idea is accepted, it is likely to have been used for ploughing furrows with an intermediate distance of $c .30 \mathrm{~cm}$ and covering the seed sown in the previous furrow. It is assumed that different tilling implements were used alongside each other in Syria in the Bronze Age-some of them adapted to small fields, others to larger ones, some used in connection with irrigation, others with dry farming.

[^68]

Fig. 17. Reconstruction of the ard-share Hama No. 3 A 180 (A. Steensberg).

Additional sources of knowledge about agricultural practices in ancient Syria may come to light during excavations of tells, as it was demonstrated at Kalibangan in North-West India some years ago, when archaeologists uncovered parts of a large field from Pre-Harappan time with furrows of the same character as used to-day (Fig. 18). The survival of a system throughout more than 4000 years certainly stresses the importance of making observations and maps of ploughing systems in remote areas at the present time.

Different systems of ploughing with an ard are practised in

> Furrows measured at Kalibangan, N.W. India 20 th Februacy $1971,6 y$ A. Steensberg.


Fig. 18. Small part of ard-furrows and a crossing irrigation-ditch of Pre-Harappa time. Kalibangan, NW India (A. Steensberg).


Fig. 19. Sketch-map of pattern of ploughing with an ard on irrigated land near Manzurabad, Sirjan. Iran 1965 (drawn by A. Steensberg).

Europe and in Asia. In Europe, cross-ploughing was used in Roman times, and obviously even in late Neolithic times. However, Columella described another practice, one-way ploughing between rows of trees or the like. Using a slanting ard, every second furrow was made as a shallow furrow. This meant that the following furrow could be cut deeper and very close to the first one leaving no real balks between the furrows. ${ }^{1}$

In Asia the present author has seen two different systems, one used on irrigated fields in Iran and the other on irrigated fields in India.

The first one is mapped on Fig. 19. The principle is always to turn inwards when adding furrow to furrow. The turnings will gradually extend along the permanent balks of the principal field so that finally the plough-team will work around an oval, ending in its centre. The animals will not need to cross the principal balks, and the secondary balks will be rebuilt when irrigation of the field commences. In Java the ploughmen use a mouldboard

[^69]

Fig. 20. Map of pattern of ard-furrows near Faridabad, India. To the left a system drawn by an old farmer from Kodihalli near Bangalore, India (drawn 1968 by A. Steensberg).
plough making ridges, and therefore they have to dig the corners with a spade.

Superficially, the Indian system appears more complicated. Figure 20 shows a furrow pattern of ploughing with an ard, such as Grith Lerche and I observed for an hour or two near Faridabad between Agra and Delhi. The ploughing turns are always made to the left and, as usual in all parts of the world, the ploughman conducting an ard walks on the fresh soil of the furrows he has just ploughed and not, as one would expect, on the firm ground. The reason seems to be that he normally tilts the stilt of the ard slightly towards himself. The field at Faridabad was surrounded by permanent walls giving access to the ploughed lands, or strips, by foot-paths on top of the walls. Three "lands", c. 40 m long and c. 5 m broad, were already ploughed before we arrived. The ploughman started near one corner of the three unploughed "lands" in the direction of the ploughed ones. When he had
made two roundabouts we noticed that he had left a narrow oval unploughed to the left near the ploughed lands, and therefore he made a special turn here before continuing. The reason seemed to be that the lands he had started to plough were slightly broader in the middle than at the ends. But after three or four turns comprising two lands, he finished ploughing the land on which he had started and then again ploughed around two lands.

To the left of the map is a sketch of a furrow pattern or system which an old farmer at Kodihalli near Bangalore in Southern India drew for me in order to explain the ideal system of ploughing. In another village, Kanamangala, a young peasant drew the system as shown in Fig. 21. None of the educated people I asked could understand the system clearly. They had seen peasants ploughing innumerable times, but none of them could draw the system correctly on paper. However, one of the farmers explained it in this way: The ploughman begins at the border of the field which is divided into parts or "lands". In order to avoid too sharp turnings, he soon makes a new addition, though returning to the first land until it is all ploughed. Then he will turn to the third land, finishing the second on his returns and so on until all is ploughed in one direction. Then he will start ploughing across the lands, following the same pattern, dividing them into lands again. Normally, the field is ploughed four times before the ragi


Fig. 21. Pattern of ard-furrows at Kanamangala near Bangalore (drawn by A. Steensberg).
(Finger Millet, eleusine coracana) can be sown with a special seven- or nine-row drill implement as described by the present author in Tools and Tillage. ${ }^{1}$

When a paddy field is tilled with an ard such as observed at Yelahanka near Bangalore, one always starts in the middle and continues ploughing outwards in a spiral in order not to end in the middle of the muddy field. The paddy field is ploughed three times before the seedlings can be transplanted from the nursery beds to the field.

From what has been demonstrated above we learn that ploughing systems differ from country to country, though all are based on rational considerations. The plough pattern will also reflect ecological conditions prevailing at the place where and when the systems were practised. This is the reason why archaeologists should be aware of the opportunity to uncover field-systems and ploughing-patterns from ancient cultures in order to gain deeper understanding of the structure of the material conditions on which the superstructures rest. The foundations of ancient cultures have been too much neglected-though the brilliant upper layers were always based on the labour of unknown fellahins and slaves, who produced the grain to feed the mouths of the rest of the population. The splendid results of the excavation at Kalibangan in India are a challenge which should be met by every archaeologist in the Middle East, who feels a responsibility towards the past history of the poor masses of ordinary people in his country.

[^70]PLATES


Plate Ia-b. Hama No. 3 F 524. Front and back.


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Plate Ic-d. Hama No. 3 A 181. Front and back.



Plate IIa-b. Mishrifé Qatna No. 379. Front and back.



Plate IIc-d. Mishrifé Qatna No. 380. Front and back.



Plate IIIa-b. Mishrifé Qatna No. 381. Front and back.



Plate IIIc-d. Mishrifé Qatna No. 382. Front and back.



Plate IV a-b. Mishrifé Qatna No. 383. Front and back.



Plate Va-b. Ard-share No. 3 a 180 from Hama. Front and back.



Plate VIa-d. Ard-share from Khanāṣer. Front and back and oblique views of front and back.



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## HANS GULDBERG AXELSEN

# THE SHERPAS IN THE SOLU DISTRICT 

A Preliminary Report<br>on Ethnological Field Research in the Solu District of North-Eastern Nepal

Det Kongelige Danske Videnskabernes Selskab Historisk-filosofiske Meddelelser 47, 7


Kommissionær: Munksgaard København 1977

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## Synopsis

The intention of the present paper is to shed light on some problems of a remote society in Himalaya. As the study especially aims at people who profess the lamaism - in that case the Sherpas - the description mainly deals with a lamaistic monastery, its relations to the local society, and further religious structures to be found in the Sherpa-area. Finally some aspects are mentioned concerning the Sherpas' material culture.

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Among people in Nepal, I am greatly indebted to my interpreter and assistent, Mr. Antonio Parveen, for his ability in providing contacts to the local population and for his never failing interest in my work, often carried out in spite of hardship and deprivation.

I am deeply indebted to two Sherpas-the head lama Ngawang Serap, abbot of the monastery of Som-den-tho-ling, where I lived for more than three months, and to dairy-manager Passang Tshering Sherpa. Besides his hospitality, the head lama generously placed his knowledge of the local culture and Lamaist religion at my disposal. Mr. Passang and his wife spared no efforts in order to provide me and my interpreter with food and all kinds of practical help and advice.

Finally, I wish to express my warm thanks to the people I met in the investigation area during my stay in Eastern Nepalfor their hospitality and for their patience with my many questions.

During the preparation of the manuscript I received help from Mr. Ole Frydensberg, who made the sketches, and from Mrs. L. Krog Madsen, who made a fair copy of the manuscript. To both of them I express my gratitude.

## Introduction

I left Copenhagen by air on September 10th, 1972, and arrived via Moscow and New Delhi in Kathmandu after a 13 -hour flight.

After some difficulties, I obtained permission to stay in the Solu-Khumbu provinces in Eastern Nepal. While waiting, I took details of eleven workshops working after the traditional methods and also visited the Lamaist temples of Bodnath and Swayambhu outside Kathmandu. Moreover, I had a talk with Professor C. von Fürer Haimendorf, who gave me much advice for which I am very grateful.

I left Kathmandu on October 3rd having engaged an Indian student, Antonio Parveen, as my interpreter. He rendered excellent service to me during all my time in Nepal and India. I also took a Sherpa guide and three porters into my service. The first day we travelled by bus to Lamasango, a village on the China road. The next morning we set out on foot in order to find a monastery by the name of Bigu. After six days' march the Sherpa guide conceded that he was unable to find the monastery; maps of Nepal are very deficient. Consequently, I then decided to take up residence in the Som-den-tho-ling monastery situated in the Solu province, panchyat district of Thodung. We were cordially welcomed by the abbot Ngawang Sherap, who regretted the little comfort he could offer; he would like to build new guesthouses and make the monastery a centre of the Sherpa culture, but unfortunately he has no funds; development aid is not obtainable from the Government.

During the following two and a half months I observed the internal organization of this monastery. All adult monks and nuns answered a questionnaire containing 27 questions dealing with: 1. personal data, 2. family data, 3. economy. Special emphasis was laid on point 3 in an attempt to evaluate the monastery's position in the Sherpa economy. In addition, I tape-recorded fairy tales, folksongs, religious texts and music.

The methods I used for all my research consisted exclusively of observations, collecting of statistical data, interviews and conversations. In no case were paid assistants used for this work except for Mr. Parveen, who could finally manage the questionnaire by himself.

While staying in Thodung I visited as many villages as practicable in order to make a demographic map of the area under investigation; primarily, I intended to count the number of households belonging to the different castes and ethnic groups. The map resulting from the research is rather imperfect because I did not manage to visit all the villages and houses dispersed on remote and hardly accessible slopes. Neither do I have informations from all the places I visited. Official statistical material from the area in question is either scarce or non-existent.

Owing to the cold climate in the mountains we had to leave Thodung for some winter months. We left Jiri, a village situated $6-7$ hour's walk from the monastery, by air on 20th December. From an air-strip at Jiri it is sometimes possible to reach Kathmandu by small plane.

In Kathmandu I intended to collect historical material from the old Lamaist temples, Bodhnath and Swayambhu, and to obtain information about monasticism in Tibet from the Tibetan refugees living in a camp outside Kathmandu. As the information obtainable from these sources was of doubtful value, I decided to go to India in order to visit the Buddhist holy places and gain first-hand knowledge about the architectural lay-out of the ruined monasteries there.

We left Nepal on 31st January, 1973, and during the following month we travelled about 1500 km through Uttar Pradesh, Bihar and West Bengal, visiting the following places: Khusinagar, Vaishali, Rajgir, Nalanda, Patna, Pataliputra, Gaya, Bodhgaya, Siliguri, and Darjeeling.

Due to the fact that my interpreter professed to the Sikh religion, we often lived without cost in Gurdwaras, i. e. lodginghouses run by the Sikh temples, for which I am very indebted to the Gurdwara officials in Patna, Rajgir and Siliguri. It was therefore possible for me to attend rituals performed in the Sikh temples and to gain some understanding of the Sikhs and their
religion. We returned to Kathmandu on 1 st March, and three days later we set out for Thodung by air via Jiri.

Because of heavy snowfall, we had to stay in a dairy near Som-den-tho-ling for a week. This time I wished to study the monastery from the outside-to check the economic information given by the monks dealing with the monastery's rôle as an integral part of the Sherpa economy, the internal structure of Sherpa society, and relations between different castes. For this purpose I elaborated a questionnaire containing 65 questions divided up into the main sections: historical data, personal data, family organization, village organization, religion and economy.

During this part of the research we again lived in the monastery instead of in Dewrali where we had hoped to hire a house. When this had proved impossible, the abbot, hospitable as ever, put a room at our disposal. Dewrali, situated one hour's walk from the monastery, is inhabited by 20 high-caste Sherpa householdsunlike Yalung, the next village studied, where all Sherpas were of low-caste (yemba) status.

Among the 20 households, I chose 6 families to answer the questionnaire, because they were economically representative of the village.

On 5th April my work in Dewrali was completed, and together with Parveen, a porter and a Sherpa boy, who accompanied me as a pupil, I travelled to Junbesi, a Sherpa village two days' walk to the north-east. The purpose of this journey was primarily to meet and discuss the history of the Sherpas with the learned Sanggye Tenzing Lama. At first we stayed in the Thup-den-tho-ling monastery near Junbesi. The monastery is evidence of the fact that the want and need for convent life is not dying out in Sherpa society. It was built by a lama who fled from Tibet in 1959. The buildings were erected by the local population, who offered their labour spontaneously and without payment, because they wished to have the abbot-a renowned incarnation-living in their midst in order to benefit from his holiness.

In addition to the many, very interesting and informative discussions with Sanggye Tenzing about the Sherpa immigration to the Solu-Khumbu area, I visited four apparently very old chortens, which indicate-in accordance with Sanggye Tenzing's
theory-that the Sherpas, and with them the Lamaist religion, came to the area far earlier than previously assumed.

In Junbesi I also heard some legends about the foundation of the village by the Sherpas, and attended a festival-Dumje-in the village temple.

On 20th April we left Junbesi and three days later arrived at Yalung, a village situated six hours' walk from Som-den-tho-ling. Here the panchyat-leader, Limbaring Lama, and the schoolmaster put a room in the school at our disposal.

Yalung differs from Dewrali and Junbesi in regard to the pattern of settlement. The 123 houses of Yalung are scattered over a wide area-about $3 \times 2 \mathrm{~km}$-in contrast to the above-mentioned high-caste villages that are far more concentrated in nature. In Yalung all 107 Sherpa households are of low-caste (yemba) status, though they themselves state that they are high-caste. Nonetheless the high-caste Sherpas discriminate against them in almost the same way as they discriminate against Indian low-castes living in the Solu province. Besides the Sherpas, there are a further 16 households in Yalung: 6 Khami, 4 Chetri, 1 Domain and 5 Gurung, the last belonging to the Palaeo-Nepalese group, whereas the others descend from Indian peoples and, apart from the Chetri, are regarded all over Nepal as being of low-caste. The Sherpas have declined to yemba status partly because they have married non-Sherpas throughout generations, and partly because many of them probably descend from slaves-slavery was abolished in Nepal in 1926.

At Yalung I especially studied the relations between different castes, the agricultural conditions, and the function of the village temple. A questionnaire containing 35 questions dealing with these matters was answered by one or more households from all castes. Moreover, I recorded fairy-tales, folksongs and music, and took notes on numerous interviews concerning religion and rituals.

On 25th May we left Yalung and flew from Jiri to Kathmandu. From Kathmandu I travelled by bus and train to New Delhi, which I left for Copenhagen on 5th June 1973.

## Sketch-map of the area investigated in Solu



The scale of the map is based on hours of walking.

Number of households belonging to different castes within the above area

|  | Sherpa | Chetri | Tamang | Newari | i Gurung | Jiril | Khami | Domain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dewrali . . | 22 |  |  |  |  |  |  |  |
| Lopcheni. . |  |  |  | 25 |  |  |  |  |
| Djogari Koni. |  |  | 39 | 1 |  |  |  |  |
| Chayngma.. | 60 | 78 |  | 3 |  |  |  |  |
| Kinsha | 4 | 6 |  | 9 |  |  | 3 |  |
| Junbesi. . | 20 |  |  |  |  |  | 1 |  |
| Those. |  | 4 |  | 182 |  |  |  |  |
| Sombardanda. |  | 40 |  |  |  |  |  |  |
| Baludanda | 8 |  |  |  |  |  |  |  |
| Soldanda. |  |  |  | 8 |  |  |  |  |
| Chuktare. |  |  | 25 | 20 |  |  |  |  |
| Jiri. | 28 |  |  |  |  | 18 |  |  |
| Yalung. | 107 | 4 |  |  | 5 |  | 6 | 1 |
| Sete. | 14 |  |  |  |  |  |  |  |
| Total: | 263 | 132 | 64 | 248 | 5 | 18 | 10 | 1 |

Though this survey does not comprise all the villages and houses situated on remote slopes, I think that it quite accurately reflects the composition of ethnic groups and castes in the area.

## I. The Sherpas and Monasteries in North-Eastern Nepal

When studying Sherpa culture the question arises: "From where and when did the Sherpas come, did they carry the Lamaist faith to Nepal, and when and why were the monasteries founded?'"

All the Sherpas I met were asked the question, "From where and when did the Sherpas come to Nepal?" Many answered-as Ngawang Sherap always did when I asked him historical quest-ions-"It happened before I was born-I don't know." About $40-45$ persons replied to my questions. History, however, was the only part of my work in which the Sherpas showed some understanding and interest. According to C. von Fürer Haimendorf (The Sherpas of Nepal. Oxford 1964, p. 18), the Sherpas immigrated to Solu-Khumbu from some place in Tibet. At first they settled in Khumbu and later in Solu. It can hardly be doubted that the Sherpas-or more correctly Shar-pas (literally 'Eastern People')-came from Tibet because their language, physical appearance, religion, dress, and way of life clearly refer to Tibet. The emigration of the Sherpas from Tibet might be connected with the struggle for power at the time that the dGe-lugs-pa sect took over power under the Fifth Dalai Lama A.D. 1640-1680. Because of the suppression of other Lamaist sects, the Sherpas, who professed to the Nying-ma-pa school, fled to their present homeland.

As far as I know, old, written records dealing with the history of the Sherpas do not exist; their history relies entirely on oral traditions. Ngawang Sherap told me that many years ago his father possessed a very old book dealing with the past of the Sherpas, but unfortunately the book had disappeared. I received the same kind of information from three other Sherpas, but when I checked it, it proved that they possessed no books at all. Nearly all my informants asserted that their ancestors came to Solu seven


Fig. 1. To the left Ingrik Dorje - a famous incarnation who fled from Tibet in 1959. He is known as a magician and a great poet, who has written about 3000 sonnets and 80 poems. Seated his pupil Ngawang Sherap - abbot of the monastery of Som-den-tho-ling.
generations ago-some said thirteen. According to Sherpa traditions, one generation comprises son, father, and grandfather, equal to about one hundred years.

Sanggye Tenzing Lama, the first Sherpa to seriously study and edit a book about the history of his people, is certain that the Sherpas-he emphasizes the spelling Shar-pa-came from Eastern Tibet more than seven hundred years ago. As reason for his assertion he calls attention to the devastation by Genghis Khan and the Mongols about A.D. 1202. From Tibetan sources we know about the Mongol invasion, characterized by a contemporary writer with the words: "only the dead were happy."

Sanggye Tenzing Lama asserts that the term Shar-pa refers to Eastern Tibet and not to Solu-Khumbu, situated to the southeast of Central Tibet. Furthermore he points out that the dialect spoken by the Sherpas is very similar to a dialect common in Eastern Tibet, where he spent many years. I am not able to check this information-but it corresponds to all other statements I heard in Solu.

Irrespective of when the Sherpas came to Solu-Khumbu, I think it most credible that they introduced Lamaism and monasticism into this area. This does not imply that monasteries were built at the same time, actually they seem to be a rather late phenomenon in Solu-Khumbu. According to Ngawang Sherap, the monastery Ten-bosche in Khumbu is the oldest Sherpa monastery, founded only about one hundred years ago. Monasteries are not absolutely necessary to Lamaism, they are an aim, but a precondition for their existence is an economic surplus that permits some individuals to be exempt from the fundamental demands for food production. According to Fürer Haimendorf, this surplus came into being when potatoes were introduced to Solu-Khumbu about one hundred years ago. I do not believe that these areas are by nature poorer than those of Tibet proper. The late establishment of the monasteries is probably due to the fact that Sherpas with monastic inclinations went to Nying-ma-pa monasteries in nearby Tibet. Even today nearly all older monks have received their training in Tibet, only after 1959 was the bond severed with Tibetan monasticism.

From an archaeological point of view the Himalayan area is almost unknown, as also its written sources. What can then motivate an assertion aiming to prove an earlier Sherpa immigration than generally assumed ?

In the following I therefore give an account of two religious remains and one ruined Sherpa village. In spite of some training in archaeological investigation, it was impossible for me to establish a certain date for the remains-my search for datable objects proved fruitless. All kinds of objects within the BuddhistLamaist cultural area-religious as well as secular-as, for example. architecture, statues and paintings, are very difficult to date because their style has changed so little through the centuries.

## 1. Chortens and Remains in the Neighbourhood of Junbesi

According to Sherpa traditions, Junbesi was founded by three lamas who came down from Tibet. The area was earlier occupied by an ethnic group named Rai, one of the Palaeo-Nepalese


Fig. 2. Old chorten in the neighbourhood of Junbesi. It is of an exceptional type, more similar to the original Indian garbha than to the common Tibetan type.


Fig 3. Ground-plan of the chorten and the other remains.
A - Phablu river. B - Path leading to Junbesi and Salleri. C - Wall which perhaps encircled the whole area in the past. $D$ - Remains of a building. $E$ - Chorten of old Buddhist type.
peoples who presently live in the Kosi basin and Eastern Terai. The Rais, who at that time professed to a "nature religion", converted partly to Lamaism, and due to religious devotion offered all their cultivated land to the lamas, whom they regarded as gods. Deprived of the means to make a living, they had to leave the area. The lamas, who established the Sherpas' position of power, built the first village temple (gompa) in Junbesi. One of these lamas is buried in a chorten situated on the outskirts of the village.

In the past Junbesi was-and still is partly-a religious centre of Sherpa Lamaism. In its vicinity I counted thirty inscriptions on large stones and rocks, all with the common prayer "Om mani padme hum". Inside or near the village there are seven chortens and six mani-walls, totalling a length of about 500 m , composed of innumerable mani-stones with incised letters and pictures. Inside the village are two gompas, but one of them is now used for secular purposes. In the neighbourhood are two monasteries-Se-ta with twelve nuns, built fourteen years ago, and Tup-den-tho-ling, housing thirty monks and about one hundred nuns, built only six years ago.

Most interesting of the religious edifices are some remains situated half an hour's walk from Junbesi. These remains stand on a slope near the path leading from Junbesi to Salleri. The path, following the river Phablu Kosi, must have been in use since time immemorial, which is testified by the several inch deep wear marks on the stones and rocks constituting the track. The remains comprise a chorten about 10 m high and 6 m in diameter made of large stones, now partly covered by earth, grass and scrub. The chorten does not have the traditional appearance of those built later, and the stones are piled up without the use of clay. It is rougher in shape and construction, the stones have apparently never been covered by a layer of clay as is normal for chortens in the Sherpa area.

In my opinion, a building located east of the chorten might be a prayer-hall or a gompa-only it appears too small in comparison with the chorten. A ninety meter long wall standing on the slope below these structures is certainly not a mani-wall. It does not include one single mani-stone, and it is inconceivable
that the mani-stones have been removed because of the respect shown by the Sherpas for their holy places.

The villagers knew nothing of the buildings-not when they were built or fell into disuse, or why they were built in a solitary spot, far from the village, all they knew was that, "they are very, very old".

Many inscriptions on the mani-stones in the Solu area are nearly worn away by weather and wind. In a discussion concerning the introduction of Lamaism and the Sherpa immigration to Solu, it is essential to answer the question: "How long can signs engraved at a depth of $5-6 \mathrm{~mm}$ on stones resist erosion?",

Some few hundred meters to the north the remains of six small chortens are found. They are almost totally ruined and entirely overgrown by scrub and trees.

## 2. Chortens and Mani-Walls in Yalung

The chortens and mani-walls in Yalung are much more elaborate and better preserved than those near Junbesi. The buildings are situated at the bottom of a beautiful valley, standing on a triangular, elevated strip of land delimited by two streams from the mountains that run into one about one hundred meters below the site. This river then empties into the Khimti Kosi river a further three miles to the south.

Once a year the place is used for the Dumje, a dance-festival lasting for three days that is performed in February on behalf of all society in order to secure fertility during the following year.

According to the village lama, Limbaring Lama, the buildings were constructed 700 years ago. Three lamas were buried in the chorten-Rindje Tille, Kosang Tille, and Bogeli. Limbaring Lama did not know whether they had founded the village. Some of the the buildings were damaged by an earthquake 56 years ago.

Limbaring Lama told me that his grandfather had possessed a book dealing with his lineage throughout nine generations-equal to nine hundred years-but because it was ragged and almost illegible, his grandfather had thrown it away.


Fig. 4. Ground-plan of the remains in Yalung.
A - River. B - School. C - Chorten of old Sherpa type. D - Remains of small chortens. E - Steps leading to a stone-platform. F - Remains of an edifice of the same type as the large ones. The mani-walls contain 267 mani-stones in all.

## 3. Guersa - A Ruined Sherpa Village

Guersa is situated about five hours' walk to the north of Som-den-tho-ling, at an elevation of roughly 4500 m above sea level. The path up there runs through dense forests, mainly consisting of $15-20 \mathrm{~m}$ high rhododendron trees. Scattered in the forest are small meadows, which are dried-up lakes and now fertile pastures for cows or dzums, a cross-breed derived from yak bulls and a type of Nepalese cow. The Sherpas move to these highland pastures in April.

Approaching the peak, the vegetation decreases in size, being bent by the wind and totally covered with a thick layer of moss. The temperature drops, the sun is hidden by clouds and mist, and sometimes hail sweeps across the peak. The ruined village


Fig. 5. A cult-place outside the village of Yalung. It certainly dates from the time of the Sherpa settlement in their present homeland, 400-700 years ago.
is situated on a slope, covering an area of about $15-20$ acres. The size is difficult to estimate because of the very dense vegetation, which mainly consists of coniferous trees, but also because of the mist. Fortunately, my guide-a Sherpa boy-knew the place very well. Since infancy he had spent every summer near Guersa together with his parents who own highland pasture in the neighbourhood.

The ruined houses are spread around, apparently without any system, just like a high-caste Sherpa village today. The fields that normally surround Sherpa houses cannot be traced on the surface today. I counted 27 ruins, varying in size from $4 \times 5$ to $5 \times 10 \mathrm{~m}$ the largest obviously being a gompa. Some of the ruins were almost level with the ground, others still had walls of full height. No remnants of roofs, no objects made of wood, or any kinds of utensils and implements, were to be found. The ruins were covered by a $15-20 \mathrm{~cm}$ thick layer of moss, and inside the houses grew full-grown trees, which I estimated to be about 150 years of age, although they might actually be older because trees grow very slowly there due to the cold, windy climate. The construction of the walls is of typical Tibetan-Sherpa style. They are made from
piled, flat stones, contrary to the techniques of other ethnic groups in Nepal, who mainly make clay walls.

On the outskirts of the village the remains of a chorten stand on the top of a 20 m high rock, which is still today draped with prayer-flags. About 500 m outside the village there are the remains of a large chorten.

The houses certainly served as permanent habitation, and are not to be confused with huts such as those that the Sherpas now use when staying on the summer pastures. From the solidly built houses and the size of the village (a Sherpa informant asserted that he had counted 40 houses), it is credible that the place was occupied for generations, but only an archaeological investigation would be able to answer this question. The size of the trees standing inside the ruined houses indicates that the village was deserted more than 150 years ago-but why? Maybe because the Sherpas forced other ethnic groups out of the valleys, which offered them better conditions for farming and grazing. One of my best Sherpa informants told me that he had heard from his grandfather that all the inhabitants of Guersa had died as a result of an epidemic many years ago.

## II. Religious Structures in the Sherpa Culture

In addition to the monasteries there are other monumental structures relating to the Lamaist religion: chortens, mani-walls, prayer-wheels, and village temples.

Chortens (in Tibetan mChod-rten, literally 'basis for offering"'): In the Sherpa culture area there are several hundred chortens, some very large and elaborate structures, others of a more modest size and ornamentation. The largest chortens are to be seen in the villages, near the monasteries and village temples, often placed in connection with a gateway. Chortens are nearly always erected as part of mani-walls, which are spread all over the Sherpa area, along paths, on peaks, in passes and at cremation-places. Sometimes chortens are situated in isolated places without connection with named localities; perhaps these are memorials to holy men, once living on the spot, or they may be the only visible remains of temples or villages now destroyed by erosion.

A chorten is a solid, conical masonry structure, built of stones and clay. Two types are common in Solu-one is the Tibetan type that is certainly of recent date and generally erected in connection with a monastery (fig. 9). The other is the most common type and may surely be dated back to the earliest Buddhism, which, according to legends, was introduced to the Kathmandu valley during the third century B.C. (fig. 8).

During my travels in Solu I saw two chortens that did not resemble these two types. One, near Junbesi (fig. 10), directs our attention to the typical Newari roof construction. At first I took the old chorten to be evidence of an early Sherpa immigration, but it may be older and originally have belonged to a non-Sherpa culture, erected by people occupying the area before the Sherpas arrived-probably the Rais. If so, the Sherpas'


Fig. 6. Mani-walls are to be found by the thousand all over the Sherpa area. To the right, a stone-bench on which porters can place their loads. Such benches are to be seen every few miles along all paths.
predecessors did not practice nature worship, as previously assumed, but were Buddhists like the people of the Kathmandu valley.

The fourth type of chorten I saw was situated in front of the Tamang village temple in Djo-gare-koni (fig. 11); its style suggests a relationship with Hinduist India.

The chorten does not have its origin in the Lamaist cultural area, but in India, and it may go back to the pre-Buddhist folkreligion. The original form of the chorten, in India named stupa, is a massive hemisphere or solid dome (garbha - literally "womb") (fig. 7). The garbha must be considered the prototype of all stupas and chortens, and it developed later within different Buddhist cultures according to their own special sense of form. The name garbha, "womb" indicates its fundamental function, namely that of containing the mortal remains of holy men-legend relates that Buddha's ashes were divided into eight portions and buried in eight stupas. In more recent times, esteemed lamas are in some cases actually buried in chortens. Nevertheless, the


Fig. 7. The original form of a chorten or burial mound (garbha).


Fig. 8. Old type of chorten which has retained the form of the garbha.


Fig. 9. The full-grown Tibetan type, which represents the Lamaistic universe in symbolic form.


Fig. 10. The chorten near Junbesi which is partly covered in earth.


Fig. 11. Diverging type placed in front of a Tamang monastery in Djogare Koni.
chortens are primarily regarded as a symbol of the presence of Buddha himself.

The origin of stupa worship is obscure. We can only guess that Buddhism perhaps inherited it from some practice of an older folk religion. We only know that from the earliest days of Buddhism it was invested with a sacramental character, which was later given canonical confirmation and thus became one of the fundamental institutions of Buddhism. Stupa worship spread along with Buddhism to Solu via Tibet; maybe also from the Kathmandu valley, as indicated by the old stupa near Junbesi.

Among the Sherpas, chorten worship consists of circumambulating the chorten (the same applies to monasteries and village temples) and decorating it with prayer-flags. Chortens and all other religious objects are always circumambulated clockwise according to the ancient custom of showing respect. In the same way, prayer-wheels must always be turned in this direction. I have never seen a Sherpa offend this precept.

## 1. Mani-walls

(Tibetan, Mani-gDong) are innumerable in the Solu-Khumbu provinces. They are long, wall-like erections, often several hundred meters in length. If situated along a path they are divided into two lateral halves in order to allow them to be passed respectfully. Mani-walls are made from flat stones about $1 \times 1 / 2 \mathrm{~m}$ in size, engraved with the common Tibetan prayer "Om mani padme hum'" and sometimes also with god-images taken from the Lamaist pantheon. The making of these walls is in no way obsolete in Solu, many Sherpas actually donate money for the erection of mani-walls or for keeping old ones in good repair.

Nothing is known about the origin of the worshipping of manior prayer-walls. It may have grown out of a pre-Buddhist practice of stone worship.

## 2. The Prayer-Wheel

(Tibetan, Mani-Chos-'khor, Mani-religion-wheel): like maniwalls and chortens, this is intended to verbalize religious devotion. It has the form of a cylinder and may vary in size from not more than a few cm in each dimension to about $3 \times 4 \mathrm{~m}$. Inside it is packed with rolls of paper or cloth upon which prayers and formulas are written or printed as closely as possibly. The most common one is the six-syllable mantra "Om mani padme hum". The large prayer-wheels are set up in monasteries, village temples, and in the galleries that are often built along paths around monasteries and holy places. The Sherpas never miss an opportunity of turning a prayer-wheel. In the monastery I have often observed men and women sitting in the prayer-wheel house turning the wheel; after a while they quietly leave the house. The small portable prayer-wheels are mounted on handles which are an elongation of the pivot. All adult Sherpas own a prayer-wheel and they are frequently in use.

The prayer-wheel is restricted to the Lamaist culture area. Its origin is unknown. Perhaps it is a Tibetan invention, introduced as a result of the Lamaists' special regard for the holy word, since it gives illiterates a chance to benefit from faith in accordance
with the principles of the Mahayana school. It is based on the belief that written and printed words in themselves have special power. It is unnecessary to read the writing, the whirling of the prayer-wheel with its written prayers makes the prayers effective. The same belief causes people to turn the large prayer-wheels and hang up prayer-flags, which may be seen waving from all Sherpa houses and all manner of holy places. I often asked the Sherpas what was in their minds when they turned a prayerwheel or circumambulated a holy place. Two replies were characteristic: "It yields religious merit and a better rebirth", or "So we have learnt from our ancestors".

Turning the prayer-wheel and circumambulation are closely linked to the concept that the origin of Buddhism, which was brought about by Buddha and continued by all the great Buddhist teachers, was metaphorically characterized as "turning the wheel of the La". The wheel is the holy sign of Buddhism and, corresponding to the cross of Christianity, the most commonly used sign in Buddhist art.

In my opinion, the wheel in Buddhism is considered holy as a result of its resemblance to the universe, to time and to the life cycle. The universe turns from one Buddhist era to another, time is considered a circle. Whereas in Western conception time is considered as a line, life from cradle to grave-from one rebirth to another-makes a circle. The essence of Buddhism is to teach a way of making it possible to escape the rebirths, "the wheel of life".

It is interesting to note that the wheel-the holy sign-was not employed for mundane purposes until the present time. Although most of the Lamaist culture area is suited to the use of wheeled transport, and although wheeled vehicles have been in use in the advanced cultures of India and China for at least 4000 years, the invention was never taken into use here. The same applies to the Kathmandu valley, which is admirably suited for wheeled transport. Even today the Nepalese carry loads on their backswalking on asphalted roads, only competing with a few trucks.

In the book "Religious Observances in Tibet, Patterns and Function", Chicago 1964, p. 121, Robert B. Ekvall records "the idea of a wheel's being rolled on the ground and sat upon has
overtones of desectation and is avoided. In the borderland between China and Tibet, where frequently the population on one side of a fordable stream is Chinese and on the other bank Tibetan, the difference is striking. The terrain, crops, and basis subsistance economy on both banks are the same, even the livestocks are the same. But on the Chinese side, the mDzo (hybrid of yak and cow) or yak pulls two-wheeled wooden carts in all the operations of farming and lumbering, while on the Tibetan side of the stream everything is packed on the backs of the animals,-although such a technique is obviously wasteful of both man and ox power.'

Of course, it may be argued that the wheel has been used for transportation since time immemorial in other Buddhist countries -according to archaeological discoveries for at least 4000 years. Here it must be remembered that the wheel was an old article in everyday use, and that it had been integrated into agricultural economy some 1500 years before the time of Buddha (550-483 B.C.). Certainly there were contacts between China and Tibet, and maybe between India and the Kathmandu valley, in the pre-Buddhist era. The failure of the Himalayans to take over the use of the wheel may be due to the fact that they are a mountain people, who have always been in opposition to the plain-dwellers. When Buddhism was introduced to the Himalayas from about A.D. 650, the avoidance of the use of the wheel for secular purposes was given canonical confirmation. This example is a proof of the rôle played by religion even in the practical sides of life.

## 3. An Old Village Temple in Yalung

In Yalung there are two village temples (Tibetan, Mani-lhakhang), one old and one new. They stand on a slope facing south. This slope constitutes the northern end of the valley, on the bottom and slopes of which the village is dispersed. The two temples are situated only a few hundred meters distance from one another. They are built and owned by a family belonging to the Lama clan that claims to be of high-caste status. The Lama family, like all other Sherpas in Yalung, are considered by outsiders to be of


Fig. 12. The old village temple in Yalung.
A. Old chorten, dia. 2 m , height 1 m .
B. Mani-wall, length 18 m , height 1 m .
C. Courtyard.
D. Wall, length 9 m , height 1 m .
E. Wall, length 5 m , height 1 m .
F. G. H. The temple, dimensions $9 \times 6 \times 9 \mathrm{~m}$.
$\times$ Poles for prayer-flags.
low-caste (yemba) status. The newest and largest temple was built 80 years ago by the grandfather of the present village lama Limbaring Lama, who now runs the temple.

The older, and much more interesting temple is run by Limbaring's younger brother Pema Lama. Both brothers have spent some time in monasteries in Tibet; Limbaring, 11 years, and Pema, 2 months. Limbaring Lama asserted that the father had possessed a lineage book-since vanished-that proved his allegations. Nevertheless, I am convinced that the present building is not 9 generations-equal to 900 years-old. It is a typical Sherpa house, in contrast to all other Sherpa houses in Yalung, which are of mixed architecture.

The temple has two floors, but only the first is in use. From the courtyard two steps lead to the entrance, opposite which stands a more than three meters high statue, named Tute-chempo. It is placed on a one meter high base, to the top of which lead four steps, making the altar. The statue rises about one meter above the ceiling through a hole. It is made of clay, painted in brilliant colours, and has four pairs of arms and three heads above one another, each of them having four faces. In appearance it resembles the Hindu god Brahma. On the steps leading up to the statue stand six brass bowls filled with water and twelve butter-lamps. On shelves on both sides of the large statue are placed 22 painted


Fig. 13. Tute-chempo, a 3 m high statue in the village gompa in Yalung.
clay statuettes, varying from 20 to 80 cm in height. Some of the statuettes are 80 years old, while the large statue and some of the small statuettes are several hundred years old according to Limbaring Lama. Some of the small statuettes are of high artistic standard and of very expressive appearance-the best I saw in Solu.

Along the eastern wall are four big dance-masks, an old sword and two old shields made from yak-hide. The objects are used during festivals performed in the temple or down in the valley
near the old chorten. From the ceiling hangs a drum, 60 cm in diameter, fastened by a rope. On two low benches, standing at right angles to the altar, lie religious objects such as a dorje, bell and prayerbooks. The ceiling is supported by two painted pillars, and the floor is made from roughly hewn planks. The walls are covered by panels, painted with gods and demons of the Lamaist pantheon. They are of Indian rather than Tibetan style. Outside the temple there is a mani-wall and a chorten, which looks very old.

## 4. Monasteries Contra Village Temples

In any discussion concerning the monasteries $I$ think it is essential to distinguish between the monks living in the monasteries and the non-organized religious practitioners, the village lamas and jhangris.

From a functional point of view, it is difficult to distinguish one from the other, because in the services rendered to the community they overlap each other in many cases. In the following I intend to define a monk or a nun as "a person who has taken the monastic vows, intends to live in a monastery for his lifetime, practices celibacy, has started as a novice and aims to be a fully initiated monk or nun, is associated with and mainly lives in a monastery and observes its rules'".

Monks and monasticism are of rather recent date in the Sherpa culture. When the Sherpas immigrated to Solu, they certainly professed to the Lamaist faith. Within the Nying-ma-pa sect, founded by the famous tantric master Padma Sambhava in the eighth century, monasticism was not organized on the same ascetic principles as in the dGe-lugs-pa sect founded by bTsong-kha-pa (A.D. 1357-1419). Certainly, bTsong-kha-pa's reform never influenced the principles on which the priesthood in Solu-Khumbu was organized.

All the villages of any size that I visited in Solu had a village temple-or gompa. Their distribution, age and integration in Sherpa society prove that they developed within Sherpa society itself. According to the services they render, the way in which their priests or lamas live and carry out their functions points back to the pre-Buddhist Bon-po religion, although the Sherpas


Fig. 14. Village lamas playing the giant trumpet, drum and cymbal during the dumje festival in Junbesi.
officially belong to the Nying-ma-pa sect. The Bon-po was prevalent in Tibet up to about A.D. 650, and was even found in some places in Eastern Tibet up to the present time.

From an analytical point of view, it is a mistake to associate the monastery with the village temple. They are based on quite different ideologies and principles of organization. Furthermore they aim at different goals.

The function of a village lama is to serve society, perform the rituals necessary for everyday life, ensure fertility, manage the gods and demons, cure illnesses and take care of the rites that are intended to strengthen the social solidarity of society. Besides being a religious practitioner, the village lama is a member of lay society. He may marry, till his fields and dress in the same manner as his fellow villagers. A village lama has no special education, but he must be able to read the holy books written in Tibetan. It is not necessary for him to understand what he reads-which he rarely does actually-and there is absolutely no need to explain or interpret the texts. The words are a power in themselves. All the village lamas who I met had spent some time in a monastery, but none of them were fully initiated monks-dGe-slong.

Although we do not know whether Sherpa monasticism was developed within Sherpa society or uncritically taken over from a Tibetan prototype, I do not doubt that the mind of the Sherpa is open to monasticism and monkhood. Of course, the Tibetan monks and the apparently rather rich incarnations, who fled from Tibet in 1959, have induced the foundation of new monasteries and had much influence through their sophisticated norms, values and monastic way of life. For example, the monasteries of Shoar and Tup-den-tho-ling are founded and run by two highly esteemed Tibetan incarnations. Their success may be evaluated from the fact that Tup-den-tho-ling, though founded only seven years ago, is now the largest monastery in Solu-Khumbu, inhabited by 130 monks and nuns. Many years ago the abbot in Som-den-tho-ling had the famous lama Inrik as his teacher. A few years ago the lama founded the Shoar monastery, and doubtless he has much influence on the way in which Som-den-tho-ling is managed.

The considerable number of novices in Som-den-tho-ling, in all $15-18$ young boys, is evidence of the fact that monasticism is making progress, and it is especially important to note that they come mainly from prosperous Sherpa families-the yemba, however, are not allowed to enter the monastery. Though monasteries are a new phenomenon in Sherpa culture and motivated from Tibet, they are in no conflict with lay society or the village lamas. They both co-operate and compete on the same matters. There may be a tendency to consider the monks as possessing greater learning and ability.

## 5. List of Monasteries in North-Eastern Nepal

As far as I know, there is no detailed map of Lamaist monasteries in North-Eastern Nepal. The following list is not exhaustive; it includes the monasteries I visited myself: Som-den-tho-ling, Seta, Tup-den-tho-ling and Djo-gara-koni. With respect to the other monasterics, my information was received from the abbot and monks of Som-den-tho-ling.

1. Teng-bo-che, certainly the oldest monastery in North-Eastern Nepal, founded $80-100$ years ago near Namze Bazar and inhabited by $35-40$ monks. The fact that the Sherpas them-
selves do not know precisely when their first monastery was founded shows their lack of interest in chronology.
2. Dewo-che, a monastery for nuns, founded in 1930 near Namze Bazar, 20 nuns.
3. Thami, founded about the same time as Teng-bo-che, situated one day's walk to the west of Namze Bazar.
4. Tun-tup-den-tho-ling, situated one day's walk to the north of Junbesi.
5. Tup-den-tho-ling, one hour's walk from Junbesi, founded seven years ago by an incarnate lama who fled from Tibet in 1959. Inhabited by 30 monks and 100 nuns.
6. Jiwong, near the village of Phablu, three days' walk to the south-east of Junbesi.
7. Trak-sin-do, two days' walk to the north-east of Junbesi.
8. Seta, one hour's walk from Junbesi, founded 14 years ago by its present abbot, Sanggye Tenzing Lama; inhabited by 12 monks.
9. Som-den-tho-ling, see p. 33.
10. Kil-khor-din.
11. Bekum or Bium, only for nuns.
12. Djo-gare-koni.
13. Shi-ling-kur-ka, 40 monks and nuns.
14. Biku, a Tamang monastery, two days' walk to the east of Barabise.
15. Pike, one day's walk to the east of Som-den-tho-ling, more than 4000 meters above sea-level; 10 monks.
16. Goli, near Kinsha, about 20 monks and nuns.
17. Shoar, founded 1965 by Chang-chup Owangbo Ham Longtzin Yeshe Dorje, an esteemed incarnation and poet, who fled from Tibet in 1959. Inhabited by about 20 Tibetan monks and nuns.

The list only includes monasteries in North-Eastern Nepal, the Solu-Khumbu provinces, and I wish to emphasize its incompleteness. In the neighbourhood of Kathmandu there are at least four Lamaist monasteries, primarily the two largest ones-Swayambhu and Bodhnath. Four Lamaist sects are represented in these two, each sect having their own richly embellished gompa. Swayambhu and Bodhnath were certainly founded as Buddhist
temples, but it is not known when they were built or taken over by Lamaists. One of the abbots in Bodhnath asserted that the temple was erected in its present form 4500 years ago-he did not know that Buddha lived only about 2500 years ago.

From the list it may be estimated that there are $500-600$ monks and nuns in North-Eastern Nepal. Besides the monks and nuns living in the monasteries, there are a considerable number of village lamas and even nuns having no connection with the monasteries. In most cases the village lamas have spent some years in a monastery without taking the monastic vows or obtaining the dGe-slong degree, i.e. that of a fully initiated monk. The same applies to the nuns.

Finally, the Lamaist clergy in North-Eastern Nepal comprises a number of Tibetan monks and nuns who fled from Tibet in 1959. They have apparently been absorbed into the Sherpa clergy without difficulties, many are living permanently in monasteries, mainly in those founded by Tibetan incarnations, while others serve as village lamas or move from one monastery to another.

My experience seems to show that the clergy living outside the monasteries outnumber those inside.

The Sherpa population in the Solu-Khumbu provinces amounts to about 10000 (J. Trier, Ancient Paper of Nepal. Copenhagen 1970, p. 23). Roughly estimated, the clergy number 1200-1500 and of these less than half live permanently in monasteries as members of an organized congregation.

## III. The Som-den-tho-ling Monastery

Som-den-tho-ling is a typical Sherpa monastery, built on a peak 3100 m above sea-level. It is situated in the Solu province, panchyat district of Thodung, six days' walk from Lamasango-a village on the China road 30 km from the Tibetan border. The China road, completed 10 years ago, is the nearest link to Kathmandu and the outside world. From here, all kinds of articles must be carried by porters to the whole of North-Eastern Nepal.

The main track from Lamasango to Namze Bazar in the Khumbu province, a further six days' walk from Thodung, crosses a pass $2-3 \mathrm{~km}$ from the monastery. From the monastery there is a magnificent view to the north towards snow-covered peaks near the Tibetan border, $4-5$ days' walk away. The highest among them is Gauri Shankar of 7132 m . To the east can be seen a deep valley approximately 1500 m below the monastery, drained by the Likhu Kosi river. Scattered on the bottom and the slopes of the valley is the village of Bondar-or Chyangma, its name in the Sherpa language. Many localities in Solu have several names as a result of the mixed population living here-Sherpa, Tamang, Jiril, Sunwar, Rai, Gurung, Newari, Chetri and some Indian lowcastes. All of these ethnic groups spoke-and partly still speaktheir own languages.

Som-den-tho-ling consists of about 23 buildings of which 19 are inhabited and privately owned by the monks. The houses are of different appearance and size, reflecting the economical status of its inmate-or rather that of his family. The head lama's house and three of the monk-houses have two stories, whereas all the other houses have only one story. Only few of them are typical Sherpa houses, the architecture of a Sherpa monastery has-like mo-nasticism-been imported from nearby Tibet.

In the centre of the monastery is the great central kitchen
which provides butter-tea, boiled potatoes, rice and sometimes different kinds of sweets during services in the prayer-hall. Only the tea is paid for by the monastery's funds, the other kinds of food are payment for services on behalf of society as a whole, or sponsored by a single person or a family in order to gain religious merit, heal the sick, bring good luck, or prevent all manner of misfortune.

In front of the prayer-hall there is a chorten of about 3 m in height and $21 / 2 \mathrm{~m}$ in diameter. The founder of the monastery, lama Dawa kipa, is buried in this chorten.

In a building just behind the prayer-hall there is a very large prayer-wheel, about 2 m in height and 3 m in diameter, filled with paper rolls on which are written the most common Lamaist prayer "Om mani padme hum". The prayer-wheel is turned by both laymen and monks in order to gain religious merit.

The prayer-hall is the main building; it measures about $15 \times 12 \times 5 \mathrm{~m}$. The roof, which slopes slightly, is made of flat, roughly hewn slates measuring about $100 \times 20 \times 5 \mathrm{~cm}$. The walls consist of large stones put together with clay and plastered with yellow-brown lime made from a special kind of clay. The longitudinal direction of the prayer-hall is east-west. It is desirable that the hall be situated on a slope facing east, so as to catch the first rays of the rising sun. Below the hall are store-rooms for the monastery's supply of butter, grain, tea, potatoes, etc. Stone steps lead to the entrance-door at the eastern end of the house, 2 m above ground level. On either side of the door is a prayer-wheel about 30 cm in height. Just inside the door is a hall, the walls of which are covered with colourful paintings illustrating the Lamaist pantheon.

The prayer-hall measures $12 \times 13 \mathrm{~m}$ inside, and the walls are covered by wooden panels decorated with colourful paintings of gods and geometrical symbols. There are shelves at the western end where the holy book can be seen-the Kangyur in 108 volumes. In addition there are 15 clay statues representing Buddhas, gods and demons painted in brilliant colours, mainly green, red and yellow.

On the southern side of the hall is an altar, made from wooden shelves, on which are placed 108 butter-lamps, and many small Buddha statuettes made from painted clay, water and rice. The


Fig. 15. The monastery of Som-den-tho-ling. In the foreground, the prayer-hall, to the left, a chorten of Tibetan type, and just behind it a house containing a 2 m high prayer-wheel.
rice is shaped into tormas (holy food) like mini-chortens. At the end of the aisle is a kind of throne that is only used when a highly esteemed lama visits the monastery.

The prayer-hall-or lha-khang (God-House)-has only two windows about $1 \times 2 \mathrm{~m}$ in size - consequently the room is always dark. The plank ceiling is painted like the panels and supported by six carved and painted wooden pillars.

During services in the lha-khang the monks have fixed places, as well as playing fixed roles in the rituals. They sit cross-legged on low benches behind tables that are only a little higher, on which are placed prayer-books and different ritual implements. The degree of initiation of a monk can be seen from which kind of instrument he plays in the lha-khang. The abbot sits uppermost to the right of the aisle and next to him sit the players of the flute, conch, drum and cymbals. On the left side of the aisle there are the gigantic trumpets and the bone-flutes. Behind the two rows of monks, other monks of lower degree, novices, nuns and laymen sit directly on the floor.

Som-den-tho-ling was founded by a Sherpa lama, Dawa kipa, in 1947. He died two years later, and the monastery was completed
by the present abbot, Ngawang Sherap. The monastery is not exceptionally rich. Its belongings consist of the prayer-hall, all kinds of furniture, the central kitchen, the chorten, the abbot's house and some few acres of uncultivated fields just outside the monastery. The fields are hired out to a Sherpa family, who use them as night quarters for their cattle.

The monks own their houses themselves and the small plots of tilled soil surrounding them. Out of the twenty monk-houses, only the abbot's house and three of the others are built in the typical Sherpa style, i.e. with two stories, firmly constructed of stones and heavy planks. Two of the newest houses are built entirely of planks and boards; the best one cost 2000 Rs-a very large sum in a simple agricultural economy. All the other monkhouses are rather small, the oldest ones look more like houses owned by non-Sherpas. Maybe this is a result of the mixed population living in the area, or that the monks who first joined the monastery were poorer than the present monks.

Normally the houses are divided into two rooms, one being a kitchen with a clay-built fire-place. Although the weather in their homeland is cold during the winter, the Sherpas-and other ethnic groups in North-Eastern Nepal-have oddly enough not learnt to build a chimney. While I was staying in the monastery, my interpreter and I made a covered fire-place with chimney. It was very much admired and called "a machine that is able to separate heat from smoke".

Like all other houses in Solu, a monk-house is very simply furnished, a few cooking-utensils made of brass in the kitchen, some wooden pots for storing tea, salt and butter. In the other room a low wooden platform, covered with home-spun blankets, serves both as a bed and meditation-seat. In addition we find a low, narrow table, wooden shelves for books, teacups, mortars, clay statues and religious objects such as bell, dorje, rosary and musical instruments. On the walls can be seen block-prints, pictures from magazines and perhaps a thanka (religious motive painted on cloth). Finally, there are some wooden boxes for keeping potatoes, grain and millet. Most of the older monk-houses are without ceilings, only having wooden roofs that allow the release of the smoke from the fire-place-and the entrance of wind, rain and snow. Houses of better construction have a shutter above the


Fig. 16. A typical monk-house in Som-den-tho-ling. Stones are placed on the roof in order to hold it down in storms. In the distance, snow-covered peaks near the Tibetan border.
hearth. Meat can often be seen suspended for drying above the fire-place, even in monk-houses, although the Buddhist faith prohibits the eating of meat. The monks defend this practice by saying that they themselves were not the killers of the animalsgenerally cows-and that the killer is the sinner. However, the meat is often that of animals killed accidently or by disease. Thus nobody has sinned by slaughtering them.

A monk has to cook his own food, but most of the adult monks have the services of a novice-in Som-den-tho-ling there are 17 monks, 6 nuns, $15-18$ novices and 2 mani guminis (old women entering the monastery at a late age without taking the vows of nun). In return for such services as cooking, cleaning the house, carrying water from a nearby spring and wood from the slopes, the novice is taught by the older monk and is allowed to live in his house.

## 1. Inmates of Som-den-tho-ling

The following description is an extract of a questionnaire containing 21 questions answered by all the inmates, apart from the novices. Of the total number of inmates- 17 monks, 6 nuns, 15-18 novices and 2 mani guminis- 6 monks and 3 nuns were absent.

1. Ngawang Sherap Lama, abbot of the monastery, 49 years old. He came to Som-den-tho-ling in 1947, and together with his teacher, Dawa Kipa, started the erection of the present monastery. Since 1949 he has been the leader, ranking as Umje, i.e. substitute for the head lama-an incarnation living in Darjeeling. The abbot has spent 6 years in monasteries in Tibet and Darjeeling. Within the Sherpa culture, he is a highly learned man. He is a fully initiated monk (dGe-slong).
2. Shangegimi Lama, 58 years old, is dGe-slong and gerku, which implies that he is responsible for the maintenance of discipline. He became a monk at the age of 22 , and has lived at Som-den-tho-ling for 22 years, in Tibet for 7 years, and additionally travelled in India, Sikhim and Bhutan on pilgrimages. Before he became a monk, he was a businessman, buying paper in Solu and exchanging it in West Nepal for dried meat and salt.
3. Lobsang Thondu Lama, 55 years old, dGe-slong and the monastery's nierwa, i.e. in charge of its economic affairs. He became a monk when 25 years old and came to Som-den-tho-ling in 1947.
4. Kipa Lama, 70 years old, dGe-slong. He became a monk at 20 years of age, and has lived at Som-den-tho-ling for the last 17 years. He has stayed in different monasteries and travelled on pilgrimages.
5. Ngawang Lama, 56 years old, dGe-slong. He was born in Bhutan and became a monk when 23 years old. Originally he was a farmer, but due to the fact that he had killed animals, he felt himself a sinner and retired to a monastery. Since then he has roamed the Himalayas on pilgrimages. Though he owns one of the best houses at Som-den-tho-ling, built by himself as he is a skilled carpenter, he seldom


Fig. 17. Ngawang Lama (no. 5) in his house.
lives there. He intended to move to the Shoar monastery, because its abbot is a famous incarnation.
6. Pema Lama, 22 years old, rab-dzung, came to the monastery 14 years ago from Jiri.
7. Sultim Lama, 23 years old, rab-dzung, came to the monastery 14 years ago from Dewrali.
8. Lotu Lama, 18 years old, rab-dzung, came to Som-den-tholing 7 years ago from Dewrali.
9. Ngawang Lobsung, 18 years old, rab-dzung, came to the monastery 15 years ago from Jiri.


Fig. 18. Everyday life in Som-den-tho-ling. The layman in the foreground is making ink from bark, the others are cutting the blocks of wood used for producing books. The monks are from the left: No. 6, a Tibetan nun, Nos, 10, 11 and a novice.
10. Angcheli Lama, 22 years old, rab-dzung, came to the monastery 5 years ago from Dungae.
11. Sudje Lama, 22 years old, rab-dzung, came to the monastery 10 years ago from Gardjopti.
12. Ani (nun) Thaktu, 28 years old, rab-dzung-ma, came to the monastery 10 years ago from Dewrali.
13. Ani Kaldun, 47 years old, Tamang and a rab-dzung-ma. She came to Som-den-tho-ling 24 years ago from Dewrali.
14. Ani Siti Angtin Lamani, 30 years old, rab-dzung-ma, came to the monastery 10 years ago from Dewrali.
15. Lamo Lamini, 64 years old. She is a mani gumini and came to Som-den-tho-ling 3 years ago from Dewrali.
16. Bemba Sherpani, 66 years old. She is a mani gumini and came to Som-den-tho-ling 6 years ago from Barad.

Apart from nos. 2 and 5, all the others are natives of villages in the neighbourhood of the monastery. No. 6 is a cousin of the abbot. Nos. 7, 11 and 12 are cousins. The nuns, nos. 12 and 13, are dGe-slong-mas. No. 14 is rab-dzung-ma and sister to the abbot.

It is unusual that a Tamang nun-no. 13-is living in a Sherpa monastery.

Nobody was able to explain the term "mani gumini". The two old women were allowed to live in the monastery, but had to provide for their own food. No. 14 was married at the age of 15 , but as she did not give birth to children, her husband left her. When her father died, her mother was taken over by his younger brother, i.e. levirate does occur among the Solu Sherpas.

No. 15 had no family. Her husband and their four children had died many years previously. She wanted to remain in the monastery for life, devoting herself to religion.

All monks and nuns wished to remain in a monastery for life, living in celibacy.

## 2. The Internal Organization of the Monastery

A Sherpa monastery is organized according to rules elaborated in Tibetan monasticism. Sherpa monasteries have not created new forms in the structure of organization or liturgy, a fact that may be taken as evidence of cultural and ethnic conformity. The ease with which Tibetan monks and monasteries, founded and run by Tibetans, are absorbed into Sherpa society underlines this assertion.

In Sherpa monasteries monks and nuns usually live together and, on almost equal terms, participate in rituals performed in the prayer-hall and rendered to local society. The nuns, however, take no official positions. In some Nying-ma-pa monasteries monks were allowed to marry, provided that their wives lived outside the monastery. Within the reformed dGe-lugs-pa sect, monks could not marry and had to live in absolute celibacy. The fact that men and women live within the same monastery does not imply that they are allowed to marry. Actually, people of different sexes may not live in the same house unless they are brother and sister, and only when they are monk-nun. Of course, all must live in celibacy. In Som-den-tho-ling the abbot has a sister living in his house, and while I was staying at the monastery Angsjelis' sister moved into her brother's house. She was 25 years old, and her husband had died while in West Bengal. The reason for sending her to the monastery, Angsjeli explained, was that her husband's
brother did not want to marry her because in spite of several years of married life, she had not given birth to children. Women who are not nuns or near relatives to a monk or a nun living permanently in the monastery may not spend the night here.

The rules in force in Som-den-tho-ling were formulated by two esteemed lamas, Dagebu Lama and Shumba Lama, and by the present abbot. In short they are: A monk must not kill any living being or steal. He must not marry, break the vow of celibacy, fight or use bad language, be envious, or harm human-beings and animals. All must co-operate and take part in the services in the prayer-hall, monks must not smoke, drink alcohol or leave the monastery without permission. A woman must not spend the night in a monk's house, unless she is his sister or mother. Above all, Buddha's words are the truth.

If the rules are broken, the case is investigated by the abbot, the gerku and the nierwa. To expiate a minor fault, the offender is ordered to pay a fine to the monastery's funds or to provide tea for all the monks. In serious cases an offender may be beaten -in one case I saw the abbot beat an adult monk.

If a monk or nun violates the vow of celibacy, he or she is expelled from the monastery should the case come to the knowledge of the abbot. Only one case has occurred in Som-den-tholing: a monk fled with a woman. Besides expulsion, the offender is fined 200 Rupees, and his/her immovable property within the monastery is confiscated, even the offender's house falls to the monastery. If the offender does not pay the fine, information about his/her crime is-via the monasteries - spread all over the Sherpa country, having the result that the offender is driven out of all Sherpa villages until he has paid the fine.

As previously mentioned, Sherpa monasteries have been uncritically modelled on Tibetan monastic patterns. One cannot point out special features that may be called typical of the Sherpas, not even the monastic architecture or the style of art. The abbot explained that he had organized Som-den-tho-ling as a reflection of his teacher's monastery De-fuk in Tibet. The personal contacts and the total faith in traditions are the driving forces behind Lamaist monasticism, and it spreads by gemmation.

The classes of the monks in Som-den-tho-ling are the following: Gyen-gi (novice), Thawa (monk), Rab-dzung and dGe-slong.


Fig. 19. The Tup-den-tho-ling monastery founded in 1966 by an incarnation who fled from Tibet in 1959. Since the communists took over power in Tibet, Tibetans have made up a considerable number of the clergy in N. E. Nepal.

Not all boys sent to the monastery as novices make a clerical career, some of them only take the vow of thawa, and leave the monastery after some learning in reading and ritual matters. Boys normally enter the monastery at the age of $6-10$ years. They take no vows, and it is expected that the monk, in whose house the gyen-gi lives as a servant, is responsible for the boy.

Later the boy may become a thawa, which implies that he must keep the rules, take another name, and have his hair cut. The vow of thawa is administered by the abbot and two dGeslongs. Besides promising to keep the monastic rules, the candidate must confirm that he/she has no debts, is unmarried, has not killed a lama, or his/her parents, and the candidate must have no grey hair. Finally, the abbot confers his/her thawa name upon the candidate, invests him with a monk's dress, and burns a piece of paper upon which the candidate's previous name is written. The ceremony takes place in the prayer-hall without much solemnity.

The gyen-gi takes part in the services in the prayer-hall and is taught to read by the monk in whose house he lives. In return
he must serve him by providing water and wood and perhaps by preparing his food.

After taking the vow of thawa, the boy is regularly examined by the abbot-often when I talked with the abbot in his house several thawas were sitting in the background delivering their lessons. The abbot invariably noticed if they pronounced a word incorrectly.

The rab-dzung vow may only be administered by the abbot and at least two learned lamas. The period of rab-dzung is the time during which the real training is given for a clerical career. While learning the prescribed texts by heart, the rab-dzung must also learn to perform different rituals, make tormas (statues of rice) and play the different instruments used during the services in the prayer-hall: drum, cymbal, flageolet, bone trumpet and the gigantic telescopic trumpets. The rab-dzung has to play the different instruments for two to three years, and his progress in learning may be judged from which instrument he plays. In Som-den-tholing all monks who play the instruments and take direct part in the rituals are rab-dzungs or dGe-slongs. They sit in the two first rows in the middle of the prayer-hall, and all others-even the two nuns who are dGe-slong-mas-sit behind, only taking part in the reading of prayers.
dGe-slong, the highest degree, may be obtained after $10-20$ years of study and after having been examined by the abbot. The vow of a dGe-slong must be administered by the abbot and at least two other abbots, who visit Som-den-tho-ling once a year.

Two officials are appointed from among the dGe-slongs. The nierwa is responsible for the kitchen and the monastery's stocks of butter, potatoes, tea, grain and other belongings. Moreover he administrates gifts presented to the monastery. Ranking above the nierwa is the gerku, who is responsible for the maintenance of discipline. Both officials are elected for a year at a time, but may be re-elected.

There are a further three officials at the top of the monastic hierarchy: Umje, loben and head-lama. In Som-den-tho-ling the abbot holds the offices of both umje and loben, because a small monastery with little property and not engaged in trade has no need for all these officials. According to the rules, the umje and loben should be elected for a fixed period of time, but the abbot


Fig. 20. Sanggye Tenzing Lama - abbot in the monastery of Seta. He is the first Sherpa to seriously study the history of his people.
in Som-den-tho-ling is not elected, he claims to be the owner of the monastery. He has inherited it from its founder Dawa Kipa on the condition that he may not sell it but only transfer it to his own heir, who-as the abbot may not marry or break the vow of celibacy-cannot be his own son. For which reason, the abbot has adopted two brother-sons, who are expected to succeed him. According to Sherpa standards, the abbot is a well-to-do man, who in addition to his monastic office owns a farm in Bomba. His fields are the best I have seen in Solu and are leased to four tenants. Indeed, it is difficult to investigate the economy of Som-den-tho-ling, and especially to distinguish between the economic affairs of the monastery and those of the abbot.

Officially, Som-den-tho-ling is headed by an incarnation discovered more than twenty years ago. He lives in Darjeeling and has not visited the monastery for many years.

The officials of Som-den-tho-ling do not appear to be men invested with much power, who issue commands and are feared by the inmates. Apart from the abbot, one cannot tell who holds an official position. The gerku and the nierwa are two old men of modest behaviour and much poorer than most of the rabdzungs. Actually, it is very seldom that they have to take action-conventions and patterns of behaviour are so deeply rooted in Sherpa culture that they are seldom abused.

## 3. Jhangri - A Sherpa Shaman

Besides the monks and village lamas, another religious practitioner must be mentioned-the jhangri, by some called Lhawa (Tibetan, Iha-pa). He is not specific to the Sherpas, and may certainly be traced back to and rooted in a pre-Buddhist shaman cult. In addition to his place in Sherpa culture, the jhangri is found among the Tamangs, Thakalis and Lhomis, i.e. among the Palaeo-Nepalese ethnic groups. The jhangri is easily distinguished from monks and village lamas both in his ideological background and in the methods he uses, even though he has taken over from Lamaist traditions the use of magic spellings and the recitation of Lamaist writings, which he certainly cannot understand. The jhangri is only a religious practitioner according to his methods, not in actual function, which, for all I know, only comprises the healing of illnesses.

I met the local jhangri in the market-place near Chayngma. He is a Sherpa of low-caste status (yemba), which fact he denied -I never met a Sherpa who conceded to being of yemba status. He assured me that he was able to heal all illnesses, because he possessed a special ability to see the evil spirits causing the sickness when he was in a trance, a state of mind he obtains by reciting from holy books and drinking chang (beer). His methods consisted of exorcising the spirits or more often, when he had detected which kind of spirit was causing the illness, he knew which sacrifice must be made. The spirits are driven away by
offering them food-the different spirits must be offered their favourite dishes: Narayan and Nayan prefer hens, Bhimsen the blood of goats, Sanchari goat kids, Bhagwati a meat-dish made of sparrows, and other spirits claim "white food", i.e. rice.

Besides offering food, the jhangri reads from holy books written in Tibetan. He is assisted in his work by special tutelary deities living in his house, and in serious cases he is able to call 5000 deities to his aid by singing secret hymns.

The jhangri inherited his ability to exorcise evil spirits from his father, and he will be succeeded by his son in turn. He himself had meditated for twelve years in order to establish connection with his tutelary deities. The same was done by his ancestors, and as a reward the deities put power and knowledge at their disposal in order to fight illness and misfortune.

The jhangri pointed out places near Chayngma where deities were living-on peaks, near streams and paths. If people neglected the deities, failed to show respect or provide them with food, they took their revenge by causing illnesses. The methods used by this jhangri differ from those used by other Himalayan shamans. Normally, the spirits are called and speak through the mouth of the shaman during his state of trance, or he himself travels to the world of the spirits in order to be informed of what to do.

The jhangri always uses magic in curing illnesses and never makes or prescribes medicines, which are often manufactured and administered by the monks, who conversely never act as spirit-mediums.

I discussed the jhangri with the abbot, who called the jhangri a primitive and unlearned man without magic powers, and I think this opinion is shared by most high-caste Sherpas. In my group of informants only one high-caste Sherpa preferred to consult a jhangri rather than a monk. It must be kept in mind that not all monks practice healing, this being reserved for a few with special talents in this matter. A cure prescribed by a monk includes prayers and nature medicines manufactured by him. I have observed a service held in the monastery's prayer-hall for the benefit of a young man-son of the village lama in Chayngmawho was lying ill in a hospital in Kathmandu. The village lama did not believe in modern medical knowledge. For the prayers,
in which all the monks took part, he had to pay 60 rupees-a sum only very few people are able to pay.

The reason why the jhangri is mostly consulted by yembas and Indian low-castes is probably because he is cheaper and more in accordance with the primitive mind. According to the abbot, the jhangri frequently discovers that the spirit Bhimsen has caused the illness and he must be offered blood from a goat-the participants in the seance can then eat the meat.

# IV. Environment, Patterns of Settlements and Types of House in Solu 

The Solu province is situated on the southern slopes of the Himalayas, a fact that dominates the topography of the area. From the High Himalayas, glacial streams have eroded deep valleys, mostly in the direction north-south. The ecological environment and the local climate, dependent on the elevation above sea-level, are the main factors in the economy of the Solu province.

The cultivatable areas in Solu range from about 1500 to about 4000 m above sea-level. The natural flora of the valleys is subtropical, comprising a wealth of trees, shrubs and climbing plants. The most common trees are $15-20 \mathrm{~m}$ high rhododendrons that gradually decrease in size as the ground rises, to be finally replaced by conifers.

Just as the topography in Solu varies, so does the population, which comprises Sherpa, Jiril, Tamang, Rais, Newari, Gurung, Sunuwar, Chetri and Indian low-caste elements. Traditionally, the Sherpas live on the slopes above an altitude of 3000 m , while the Nepalese groups mainly live in the valleys. This is an oversimplification, because in fact the different ethnic groups often live side by side, but at least one exception may be distinguishedthe high-caste Sherpa villages.

The villages of Buludanda, Dewrali, Sete and Junbesi are inhabited by high-caste Sherpas-in Junbesi one Khami lives on the outskirts of the village. The patterns of settlement in pure high-caste villages differ a lot from those in the mixed ones. The houses stand closer together and are of a much more compact appearance. They are all of the same type, and only separated by small fields and kitchen gardens-with nothing to suggest roads or village streets. The same, however, applies to the whole of North-East Nepal.
Path
Mani wall

Chorten

House
【 Gompa

Fig. 21. Sketch map of Dewrali. The village is typical of the pattern of settlement of the high-caste Sherpas. The houses are situated on a slope at an altitude of 3100 m , scattered without plan and surrounded by small cultivated fields. A. Path to Som-den-tho-ling, B. To Chayngma. C. To Lamasango.

Dewrali is a typical high-caste Sherpa village comprising 22 houses and situated on a slope about half an hour's walk from a pass through which the main track leads from Lamasango to Namze Bazar.

With respect to patterns of settlement, villages inhabited by the Newari, as for example Lopcheni, look like those of high-caste Sherpas to some extent. In contrast, the mixed villages, including the Sherpa yemba in Jelung, are scattered over considerable areas. For example, Yalung and Sombardanda roughly cover an area of $3-5 \mathrm{~km}$ in each direction.

Settlement patterns may be explained in terms of tradition and economy. Before immigration to Solu, the Sherpas and the Newaris traditionally founded compact villages. Moreover, the Sherpa economy mainly rests on cattle breeding. Milk products are the basis of their livelihood with the result that only small fields are necessary for cultivation, but extensive highland pastures are needed. Actually, the Sherpas do own the highland pastures, which makes it possible for them to practise their traditional transhumance. Since a dairy was started in 1956 ownership of the pastures became of special importance, which is seen from the fact that all 42 suppliers of milk to the dairy are Sherpas.

Other ethnic groups in Solu depend by tradition mainly on grain, maize, rice and vegetables, i. e. they need more cultivable land surrounding their houses.

## 1. Types of House

Four types of house may be distinguished in Solu. The appearance of the house reveals the ethnic group of its owner.

High-caste Sherpa houses are substantial, spacious buildings, consisting of a framework of wooden posts and walls of roughly hewn stones smeared with clay and white-washed. The traditional double-storeyed Sherpa houses are constructed according to a pattern that allows only few variations. The ground floor serves as storeroom and stable for calves, goats and hens. The entrance is broad, framed with solid wooden posts and without a door. From the dark ground floor, wooden stairs lead up to the dwelling room. Next to the entrance is the open hearth, serving


Fig. 22. Typical high-caste Sherpa house in the Solu province.


Fig. 23. Yemba house from Yalung. It is a mixture of Sherpa and Tamang styles. The walls are built of stone and clay. The roof is made of one meter long boards. Dimensions are $12 \times 6 \times 5$ meters.
as a cooking place, besides providing a little warmth and light. In spite of the rather cold climate, the Sherpas very seldom make a fire for heating, only when food is to be cooked do they make up the fire by energetically blowing on it.

The room is lit by $3-5$ windows at the front of the house. A low bench runs along the front wall below the windows, in front of which stands a low table, on which food is served for male guests and for the men of the house, while women and children eat squatting around the hearth.

The dwelling room is about 10 m long by 5 m broad and without partitions. The floor and the ceiling are made of rough planks. Above the hearth, made from a layer of clay, is a covered


Fig. 24. Tamang house from Djogare Koni. It is mainly built of clay, the windows are small and without frame and glass. The plinth, proportionally high, is brown and the walls are whitewashed. The roof is made of boards, about one meter in length. The entrance is without frame and door. The dimensions of the house are $8 \times 4$ meters.


Fig. 25. Newar house. This type is common all over Nepal. It is built of sun-dried clay-bricks and has a tile roof or is thatched. Often the doors and windows have carved frames. Dimensions are $6 \times 5 \times 9$ meters.
aperture through which the smoke disappears, when it is openednevertheless, everything is blackened by smoke. At the end of the room stands a large, board bed intended for the married couple. Unmarried people and children sleep on mats around the hearth. In the middle of the room shelves fixed on a wooden post con-
stitute a house altar on which may be seen small Buddha statues, water bowls, butter lamps and perhaps a few books. On carved wooden shelves along the walls stand rows of copper and brass vessels, besides storage chests, big wooden bowls, a butter churn, brass water jugs and different small utensils.

The largest yemba houses are furnished in almost the same way as high-caste houses, but it must be remembered that far from all Sherpas live in well-built houses. Many of them-and most of the yembas-live in small, poorly equipped stone houses. The caste distinction does not only apply to ritual purity, but to a great degree to classes of economy too.

Tamang and Newari houses are rather different from the Sherpa houses, both in appearance and equipment. Their types of house are smaller, mainly built of clay and of a poor appearance. Inside, the furniture is poor, tables and beds are not used. Nepalese and Indian people live more "on the floor"' so to speak.

## 2. Agriculture in Solu

Agriculture in Solu cannot be described in general terms-what kinds of plant are cultivated and their sowing and harvest time depend on the elevation above sea-level, which may range from about 1500 to 4000 m . Not only are there differences in temperature but in precipitation too. This is entirely due to the monsoon, and as rainfall is the result of the cooling down of air, the higher areas have far more rain or snow than the valleys. In the valleys, frost and snow occur in December, January and February, but due to the heat of the sun the snow melts quickly, whereas the highest cultivatable areas remain snow-covered for months. In March, April and May hail-storms are frequent in areas above 2000 m in height, causing serious damage to potatoes, maize and winter wheat. In Yalung I saw the almost ripe wheat partly spoiled by hail at the end of May. In June, July and August the monsoon causes heavy rainfall. September, October and November are the best climatic season. According to the official statistics, 94 per cent. of the Nepalese population is engaged in agriculture. In Solu, apart from some few state-employed officials, all the inhabitants live from agriculture and cattle-breeding. There are only few
possibilities of earning cash-indeed many households have no cash-income. The best chance to earn money is by the sale of milk, but as there are only three dairies in Solu, this possibility is restricted to the areas from where milk may be carried to the dairy. Roughly estimated, one hundred households are suppliers. Cash may also be earned by working as porters, as soldiers in the Nepalese and the Indian armies, and by running small shops, which sell commodities such as kerosene, cigarettes, biscuits, tea, sugar and a few other articles transported by porters from Lamasango. Finally, a little cash may be earned from selling articles such as salt, fruit, spices, rice, cloth, and other agricultural products in the local market. Market-places, however, play no decisive rôle in the economy of Solu, most people go to market more for social intercourse than for buying or selling.

In Solu one finds no real working-class or large landowners, all cultivate agricultural products for their own consumption. Apart from the Indian craftsman classes, it is very rare that anyone does paid work for others.

The way in which the fields are tilled depends on their size. In southern Solu, where a considerable part of the area is flat country, the plough is common, whereas in Central and Northern Solu, where the fields are small terraces, they are dug by hoe. Certainly the differences in soil preparation are the result of cultural traditions. Ploughing with yoked animals, which prevails in Southern Solu, is of old date in Indian-Nepalese culture, but is an innovation in Sherpa culture.

In Central Solu it is interesting to note that flat country, as for example the valley bottom on which the village of Chayngma is situated, is not tilled but utilized for pasture, while the surrounding slopes are terraced and cultivated. The terraces are small, only $50-200 \mathrm{~m}^{2}$ in size, and enclosed by stone fences of one to three meters in height. The terraces must be really level, because the soil will otherwise be washed away by heavy showers during the monsoon.

Irrigation is known and to some degree practised in valleys where water is easily accessible from mountain streams. But elaborate, technical devices are not used, though irrigation could increase the yield considerably. Irrigation is mostly used for rice, which is rarely cultivated by the Sherpas-only in Yalung did I

Sowing and harvesting times

| Crop | Sowing | Harvesting |
| :--- | :--- | :--- |
| Potatoes | February | July |
| Wheat | December | May-June |
| Barley | December | April |
| Maize | March | August |
| Millet | June | October |
| Rice | July | November |
| Turnips | July | December |
| Onion | January | May |
| Garlic, Carrot | July | October |
| Red pepper | June | September |

see yemba Sherpas cultivate rice-even though it is in great demand.

There is only a partial division of labour between men and women. The plough is invariably led by a man, and men construct the new terraces and thresh by flail, but most of the manual work is done by women and children, as, for example, hoeing, carrying agricultural products from the fields, providing fuel and water, weeding the fields, etc. The children take part in the daily work from the age of 5 or 6 years.

Under the circumstances, the people in Solu are skilled farmers, which is proved by the fact that a family is able to produce sufficient food for its own consumption from one to three acres of cultivatable land, plus some few cows or buffalo. Utilization of cow-dung and compost is common, whereas crop rotation is little practised. The same terraces are tilled every year, i.e. the fields do not lie fallow, and because fertilizers are unknown, the yield must be of modest size. To my estimation, one acre of wheat yields $600-700 \mathrm{~kg}$ at the best.

The following crops are cultivated in Solu: wheat, barley, maize, millet, rice, potatoes, turnips, garlic, onion, carrot and red pepper. Potatoes are especially important in the daily food and are also exported to Southern Solu in considerable quantities.

These sowing and harvesting-times apply to valleys below an altitude of 3000 m .

Implements used in agriculture are of very simple construction: plough with iron tip, two kinds of hoe, sickle and flail for cutting
and threshing the grain, stone-quern operated by hand and a larger water-mill owned by a village in common. All implements are made by the local blacksmith and generally paid in kind.

## 3. Cattle-Breeding

Cattle-breeding does not play so important a rôle in Solu as it does in Khumbu, mostly because the land and climate in Solu are more suitable for cultivation, and because non-Sherpas make up the majority of the population. The Nepalese-Indian groups are much more inclined to agriculture than to cattle-breeding. While the non-Sherpas breed buffalo, the Sherpas exclusively breed a hybrid cattle race, the dzum. The choice of a race of cattle, of course, is bound up with the patterns of settlement. The Nepalese-Indian groups live in the valleys, where buffalo yield the best profit, whereas the Sherpas, living on the slopes, prefer the dzum, which, contrary to the buffalo, is able to live on the highland pastures and can stand the cold climate by virtue of its thick coat. Moreover, the Nepalese-Indian groups have no tradition of nomadism-which is necessary if the highland pastures are to be utilized-whereas nomadism is an integral part of the Sherpa way of life.

In the winter-from about December to April-the Sherpas keep the dzums near the village and feed them on leaves and dried corn cobs. The dzums yield no milk during this season. In exceptionally severe winters the animals are driven to lowerlying valleys, but frequently the dzums die of cold and starvation.

From April to December the dzums graze on the highland pastures, but this does not imply that the whole family leaves the village. Normally, only young people and households owning many cattle spend the whole summer on the highland pasture. These pastures are seldom situated more than a half to one day's walk from the village. In particular, since the dairy was started, the Sherpas in Thodung prefer to keep their cows not too far from the dairy.

When on the highland pastures, the Sherpas accompanying the cows live in huts made of branches and bamboo mats. When the herds are driven to new grazing places, the hut is not dis-


Fig. 26. A herd of cows (dzum) ready for milking. In the background is a hut used by the cattle-owner and his family when staying on the highland pasture.
mantled, only the mats are taken to the new place. The branch framework erected on the different highland pastures is used for several years.

The dzums only yield from three to seven litres of milk a day with a fat content of nine to eleven per cent. Most of the milk is used for making butter, curds and butter-milk. In the Thodung area most of the milk is sold to the dairy for a price of one rupee a litre.

Great quantities of butter are needed for domestic and ritual purposes. It is used as fuel in the butter-lamps lit at home, but primarily it is offered to the village temples and monasteries as fuel for innumerable butter-lamps lit during the course of Buddhist rituals. It is also moulded into various shapes for the decoration of the sacrificial dough figures called torma that play an important rôle in ceremonies. In addition, butter stored in wooden boxes is used as a medium for payment.

The Sherpas very seldom slaughter their animals, but they are not averse to eating the meat of cows killed accidentally. Actually, I have not seen or heard of Sherpas who slaughtered cows-as devout Lamaists Sherpas are not supposed to kill any
animal. Nonetheless, I have seen them eat the meat of stillborn calves, and in all Sherpa houses meat is often hung up for drying. In addition to cows, sheep and goats are bred-mostly by Nepalese-Indians. There are a few ponies used not as draught animals, but for riding by well-to-do people.

In Solu, cattle-breeding influences the economy in different ways. With the exception of people selling milk to a dairy, animals are only part of a subsistence economy. Due to the fact that the only form of transport in North-Eastern Nepal is by porter, it is difficult to trade articles to other parts of Nepal, and it should not be forgotten that only few people can afford to buy meat and dairy products.

## 4. A Development Programme and Ownership of Land

The dairy in Thodung was started as a development programme in 1956 at the initiative of and economically supported by Switzerland. Later on, reception-centres were built in Dewrali and Pike.

According to Western standards, the dairy is of very modest size and equipment, comprising two buildings of the usual Sherpa style and some hand-operated machines. The project employs eleven men in addition to the manager. The dairy produces cheese and butter, which are exclusively exported to Kathmandu by air from Jiri or carried by porters to Lamasango and then forwarded by bus to Kathmandu. The price paid for cheese is 14 rupees per kg and for butter 19 rupees per kg -a price which nobody in Thodung can afford to pay.

The dairy is situated on a peak 3126 m above sea-level. The reason for this elevation is the fact that electric power is unknown in North-Eastern Nepal, and only at this high altitude is the climate sufficiently cool to keep the milk fresh without using a coldstorage plant.

In 1972 the dairy purchased 140000 litres of milk for a price of one rupee a litre from 42 suppliers, who all were high-caste Sherpas, although the Sherpas are all in all a minority in the Thodung area. The reason for the dominance of the Sherpas in exploiting the only real possibility for earning cash is their ownership of the highland pastures, which, according to tradition, they inherited from their ancestors.

My Sherpa informants asserted that both the valleys and the highland pastures really belonged to the Sherpas. When they immigrated to Solu about 700-900 years ago, the land was sparsely populated by the ethnic groups of Rai, Limbu, Sunuwar and Tamang, who were living in the valleys and raised no cattle. The Sherpas cleared and cultivated the slopes, and after the valleys were deserted by the aboriginal population, they took over the valleys too. Actually no Rais or Limbus-and only few Sunuwars and Tamangs-live nowadays in Central and Northern Solu.

According to the official statistics (National Census Part 2 Kathmandu 1961), 17299 Sunuwars are living in Solu and Western Terai. No historical sources record when the abovementioned groups left Central Solu, but some old writings testify that Rais occupied parts of the Solu-Khumbu provinces in the past. It may hardly be doubted that the Sherpas drove out the aboriginal population, though nothing in the structure of Sherpa society points to any military organization or to the fact that they were once conquerors. Actually, apart from kukuris and an old flintlock, I saw no kinds of weapon in Solu, and no Sherpa legends narrate of wars or battles.

Land is owned individually in Solu. This applies to all ethnic groups, but the Sherpas are not the least individualistic in their attitude to the private ownership of property. Even the highland pastures are divided up among the high-caste Sherpas, and they respect one another's ownership. Perhaps the land was once owned by the clan or tribe, which is suggested by the fact that many villages are occupied by one or two clans and that many clan names refer to village names-certainly the original homeplace of the different Sherpa clans in Solu-Khumbu.

Since the start of the dairy, the non-Sherpa groups have attempted to drive their cattle to the highland pastures, but have been forced away by the Sherpas. A few years ago the Sherpas had their right to the highland pastures confirmed by the district court in Okaldunga.

According to tradition, the Nepalese-Indian groups immigrated to Solu 400 years ago, certainly from the densely populated Central Nepal and from West Bengal. As the Sherpas mainly made a living from cattle breeding, they only cultivated small fields, a fact that gave space for the immigrating farmers. The

Sherpas accuse the farmers of having taken over the land through deception. Generations ago, the Sherpas hired out the land to the immigrants for a very low rent, consisting of small amounts in kind.

In recent years some Sherpas have vainly claimed the return of their land. The district court in Okaldunga has, however, confirmed the farmers' right to the land, referring to the law which states that a man who has cultivated a plot of land for at least ten years is the legitimate owner. My Sherpa informants asserted that the Chetris and Newaris were aware of this law-but the Sherpas were not.

As owners of the highland pastures, which form the basis for cattle breeding, some of the Sherpa families are gaining economic dominance. In 1972 one supplier sold milk to the dairy for about 12000 rupees, an exceedingly large sum in a society where the cash income-apart from that of the milk sellers-ranges from $0-300$ rupees per household. The big milk suppliers also act as money-lenders, charging $25 \%$ interest per year, a fact that further strengthens their economic superiority.

## 5. Yer-chang: A Summer Festival

Yer-chang which means "Summer Beer" is celebrated in the month of Asar and on the day Purnia (July 15th in 1973). The words Asar and Purnia derive from the Nepali language. In Sherpa the date is Thawa-tjanga, i.e. the fifth month according to the Tibetan calender.

The festival is held in a locality named Sher-ding, situated at an elevation of about 4000 m and only one hour's walk from the ruined Sherpa village of Guersa. The area is about 1000 m long and 400 m broad-a meadow originally a lake and totally flat. On the outskirts are six cottages belonging to the Sherpas who own the surrounding highland pastures.

Three days before Purnia four officials, called the Lawas, assemble in Sher-ding in order to decide who may take part in the Yer-chang and how many days the participants-including their families and cows-may stay in Sher-ding. It is always the same 45-50 families who assemble in order to celebrate Yer-chang. Families, who do not own pastures at Sher-ding, are only allowed
to stay for a few days-normally $3-4$-otherwise the many cows consume all the grass.

The four Lawas, who always belong to different families, volunteer for this task at the end of the preceding feast. They are under an obligation to plan the feast and to provide food and beer-in return for prestige.

The festival is inaugurated by erecting $45-50$ bamboo poles (dhar-ka), one for each of the participating families. The poles are placed in a circle, and some branches must always be left on the top of the poles. The same branches may be seen on poles for prayer-flags-nobody was able to explain what they symbolize. At the top of the pole every family hangs up a pot filled with milk, butter and eggs. In addition, on the first day, a stone altar surmounted by prayer-flags is set up (tarshing).

The village lama in Chayngma is called to perform the religious part of the Yer-chang. The man who invites the lama offers him four mana ( 10 litres) of chang (beer), and later on he is paid $10-20$ rupees. The lama makes a dough, known as pema, from the butter, rice and sugar offered by the participants. The pema is fashioned into tormas (figures) symbolizing yaks and the god Burjung, who is believed to live on a peak above Sher-ding. He is one-eyed and rides on a yak-though the Solu Sherpas do not breed yaks. Certainly, this god is inherited from Tibet. According to Sherpa religion, all places are possessed by local deities, and for this reason Burjung must be worshipped and offered food during the Yer-chang. In return, he allows the Sherpas to utilize the pastures. Moreover, he protects their animals against illness and from being eaten by bears and leopards.

Burjung is connected with the Sher-ding area and not with a special Sherpa clan. All Sherpa clans owning cattle-excluding the yembas-have in the past entered into an alliance with Burjung. This alliance is confirmed and renewed in the Yer-chang. From a functional point of view, he legalizes the Sherpas' ownership of the pastures.

The religious part of the feast is performed on the first day. The village lama recites from the Yer-chang book (Tibetan Lhapsang), which is written in Tibetan, a language the lama is able to read but does not understand. After the recitation, the
tormas are distributed and eaten by all participants. Finally, the cattle are driven close to the altar, and the lama puts dots of butter and salt on their heads, thus indicating that they are under the protection of Burjung.

The following $3-4$ days are spent in singing and dancing around the dhar-kas. Large quantities of food and chang are consumed.

## V. Patterns of Family Life in Solu

In Solu the family generally consists of husband, wife and their unmarried children. This pattern applies to all ethnic groups, though some differences are to be found both in their attitudes to polygamy and regarding co-operation among close kinsfolk. The Sherpas are considered to be inclined to polyandry, but actually I observed no cases of either polygamy or polyandry among the Sherpas. My informants told me that polyandry was only practised by Tibetans and in some few cases among the Khumbu Sherpas. I have, however, reliable information making it evident that polyandry was not uncommon in Solu one generation ago. Certainly the dislike of polyandry is a trait taken over from the Nepalese-Indian peoples, to whom this form of marriage is abominable. In other respects the Solu-Khumbu Sherpas are influenced by Hindu culture too-for example, with regard to pre-marital relations. According to C. von Fürer Haimendorf (The Sherpas of Nepal, London 1964, p. 40), the Khumbu Sherpas have a broad-minded view of casual sex relations-both among married and unmarried people.

All my Sherpa informants asserted that pre-marital sexual relations were a bad thing, and that a girl is despised if she has sexual relations before marriage. In the same way adultery is regarded as "the greatest sin in the world"-in particular if the adulterer is a woman. Adultery is very rare among the Solu Sherpas and it is always punished. One of my informants thought that a female adulterer would commit suicide or her father would kill her. Actually men are fined by the panchayat, or it will order the adulterer to go to the village temple and light butter-lamps for a fixed number of days. The fine of the female adulterer is paid by her father, who in return will beat her. Normally she must leave her husband's house.


Fig. 27. Gurung girl from Yalung, to where her ancestors immigrated several centuries ago.

The children of a divorced couple are divided between husband and wife and normally the mother takes care of the infants, but later they will move to their father's house. If an unmarried girl gives birth to a child, it is brought up in her parental home, but the child's biological father must pay for its maintenance.

In a divorce the spouses divide the movables, but the land remains the property of the man. Nevertheless, it should be stressed that divorce is very rare, and I have not myself heard of or observed any case.

If a family has no son, the oldest daughter inherits the parental home and remains the owner after marriage. The system of
adopting a son to marry a daughter, which is common in Tibet, is not practised in Solu. If a family is childless, the man's brothers range second as heirs.

The Solu Sherpas' attitude to inheritance is determined by the idea of unrestricted ownership. In principle, a man is allowed to distribute his property as he likes in his will-for example, for religious purposes. On the other hand, there are principles underlining the right of the paternal kin-group that emphasize the latent joint-ownership of land. In fact, many cases concerning inheritance are brought before the city court in Ramenshap, or before the district court in Okaldunga.

Due to the principles concerning the private right of property, and not least due to the fact that not all high-caste Sherpas sell milk to the dairy (the majority is provided by less than ten families), there are considerable differences in income. The differences in wealth tend to strengthen succession by will.

Brothers inherit land from the paternal home on equal terms. When married, they take over their share of land and domestic animals, build a house and set up their own household. Sisters normally inherit movables like jewellery, utensils and money. If the shares of land are too small after a partition, new areas are brought under cultivation from the pastures.

One may wonder why Sherpa villages have not grown larger in size as land is split up among brothers, who build their own houses. In the Thodung area nothing indicates that new villages have been founded in recent times, nor that the old villages have grown larger. The lack of Sherpa expansion is due, I think, to different factors, but mainly to emigration and high infant mortality.

Throughout the last century many Sherpas have served as soldiers in the British army and since 1948 in the Indian army -three of my chief informants had served 12-18 years as soldiers in India. Moreover, many Sherpas have emigrated to the Darjeeling area. According to C. von Fürer Haimendorf (ibid. p. 54), 6929 Sherpas are living in the Darjeeling area-compared to about 10000 in North-Eastern Nepal. Within recent decades many Sherpas have found a livelihood in Kathmandu as tradesmen, or working in the service of mountaineers. From my questionnaire completed by the monks in Som-den-tho-ling concerning family
data, it appears that many family members had gone to India in search of work. In many cases the family had no contact with the emigrants. The motivation for emigrating from Solu is the almost total lack of possibilities for earning cash. Due to the absence of factories, there is no alternative to agriculture, which, for the majority, only makes possible an existence just above the subsistence level.

Infant mortality is so high that it largely reduces further expansion. It is a difficult matter to discuss, because the Sherpas consider children to be a gift from the gods, which means that it is a manifestation of the gods' wrath if a woman is barren or if the children of a married couple should die.

The following statistics apply to high-caste Sherpas, except no. 8 which concerns the Khami caste. My informants-who were in some cases the adult brothers of the deceased children-did not always remember the age at which their brothers and sisters had died. Other informants, who were asked the question, refused to reply to it or asserted that none of their children had died. In cases where a couple having, for example, four children aged from one to twenty years told me that they had had no other children, I imagine the information was incorrect. Though of small proportions, I think the statistics are quite reasonable-relating to both Sherpas and other ethnic groups in North-Eastern Nepal.

|  | Number of <br> children born | of whom died | at the age of |
| :--- | :---: | :---: | :--- |
| 1. | 10 | 4 | $4,5,7,9$ months |
| 2. | 8 | 4 | $20,12,3,0$ years |
| 3. | 9 | 4 | $0-1$ years |
| 4. | 9 | 12 | $0-3$ years |
| 5. | 13 | 9 | $0-20$ years |
| 6. | 5 | 7 | $2-12$ years |
| 7. | 14 | 3 | $0-1$ year |
| 8. | 86 | 49 | $0-6$ years |
| Total |  |  |  |
| Death rate $57 \%$ |  |  |  |

The reasons for this high death rate are lack of hygiene, incorrect diet and the absence of modern medical treatment.

| Kinship Terms Used by the Sherpas in Solu |  |
| :---: | :---: |
| Phabu or phaba | father. |
| Ama | mother. |
| Phagaga | father's father, mother's father. |
| Khyghe | husband. |
| Bambesa | wife. Actually, a man neither uses this term nor his wife's name, but addresses her as 'ama of' plus the name of their oldest son. |
| Anga or petsa | junior wife. |
| Fu | son. |
| Fum | daughter. |
| Ajo | elder brother, father's brother's son, husband's sister's son. |
| Nu | younger brother. |
| Aye | elder sister, father's brother's daughter. |
| Num | younger sister. |
| Nama | son's wife, brother's wife. |
| Makpa | daughter's husband. |
| Aku | father's brother, mother's sister's husband. |
| Ani | father's sister, mother's brother's wife, husband's younger sister. |
| Thesang | mother's brother. |
| Uru | mother's sister, mother's brother's daughter, wife's younger sister. |
| Tsabyung | father's sister's daughter. |
| Mapin | mother's sister's daughter. |
| Tsau | father's sister's husband, sister's husband, sister's daughter's husband. |
| Tsato | wife's sister's husband. |
| Tsawgom | brother's wife. |
| Meim | husband's father, wife's father, husband's and wife's elder brother. |
| Iwoi | husband's mother, wife's mother, husband's and wife's elder sister. |
| Yaku | husband's younger brother and his younger kinsmen. |
| Nati | son's son, daughter's son, son's daughter, daughter's daughter. |



Fig. 28. Two Sherpa girls. Although half-sisters, they reflect contradictory traits in Sherpa culture. The one to the left is educated and has abandoned the traditional Sherpa dress worn by her half-sister.

The kinship terms of the Solu Sherpas do not reflect or prescribe special behaviour among kinsmen, as is often the case in societies founded on membership of a clan, extended family or caste. In fact, the Solu Sherpas are individualists. The nuclear family is the only co-operating unit in the daily work. Contrary to the sedentary Nepalese-Indian groups, the Sherpas are not embedded in a web of obligations to and need for help from close kinsfolk. The seasonal transhumance-though in Solu this way of life is for the majority more an ideal than a reality-demands self-reliance of the nuclear family. The Sherpas' individualism
may be seen from the pattern of settlement and the principles of inheritance. When a man marries he is expected to set up his own household and take over his part of the land from the parental home. When discussing this matter with the Sherpas they conceded that brothers should help one another, but actually they maintained that the nuclear family stood by itself, responsible to no one and not relying on support from anyone.

Among the Solu Sherpas it is customary for the parents to choose wives for their sons-all my informants, and especially the yembas, asserted that a young man could not refuse to marry a girl chosen by his parents. Certainly the trait is taken over from non-Sherpa groups, where the choice of a spouse is made by the parents alone. In fact, many couples have not met before the wedding. Among the high-caste Sherpas a spouse must be found within the same caste but outside the same clan. Many of the Sherpa clans are dispersed all over North-Eastern Nepal, but irrespective of how far apart they live, intermarrying is regarded as incestuous. If a Sherpa marries outside his caste, he and his offspring are regarded as yemba and excluded from social contact with his own caste.

## Addendum

The purpose of the present paper is limited to the publication of some of the material that I collected in Solu, mainly that concerning the Sherpas' own conception of their immigration to Solu, and to describe some old religious structures and the work of a Sherpa monastery. It is outside the scope of the paper to draw any conclusions from the material.

Monasticism, which according to tradition was founded by Buddha about 500 B.C., has mainly been studied from a religious point of view and within an ecclesiastical frame of reference. From an ethnological point of view, it is more relevant to ask the question: "Which psychological preconditions and ideals gave rise to monasticism, and what rôle does it play as a cultural factor?'".

The growth of monasticism and monkhood cannot be explained in terms of ascetism-a phenomenon known from all world religions and especially developed in Hinduism, where monasticism is totally absent. The same applies in part to Islam-the brotherhood found here cannot be compared in structure and function to the organized monasticism of Buddhism and Christianity. Of course, ascetism and meditation do play a dominant rôle in monasticism (the name Som-den-tho-ling means "a lonely place for religious meditation'') and to some degree the monastic life may be regarded as a projection of mankind's spiritual endeavours. The monastery offers a possibility to live a life without manual labour and according to ideals and dogma rooted in Buddhism and Christianity.

Monasticism, however, is not-and certainly has never been-- a mere religious institution without the dynamics involved in every organized assembly and without being connected with and influenced by historical events. Monasticism is at one and the same time involved in local society and a component of a farreaching organization, which, as an integral part of the power structure, has been one of the most significant factors in creating and maintaining the Buddhist and Christian cultures.

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[^71]
[^0]:    ${ }^{1}$ Röck 1924, 200 ff.
    ${ }^{2}$ Cf. Kroeber in Steward (ed.) 1946-59; V 411 ff. Means 1931; 117 ff. Wendell Bennett ibidem; II 74 ff.
    ${ }^{3}$ Röck 1924; 211.

[^1]:    ${ }^{1}$ MacLeod 1929; 421.
    ${ }^{2}$ MacLeod 1929; 435.
    ${ }^{3}$ Birket-Smith 1971; 12 f. Birket-Smith 1973; 41 ff.
    ${ }^{4}$ Garfield 1939; 295.
    ${ }^{5}$ Boas 1897; 371. Boas 1935; 295
    ${ }^{6}$ Locher 1932. Müller 1955; 11.
    ${ }^{7}$ Beasley 1903; 520.
    ${ }^{8}$ Drucker 1951; 53.
    ${ }^{9}$ McIlwraith 1948; I 79.
    ${ }^{10}$ Barnett 1955; 296.
    ${ }^{11}$ Olson 1936; 67.

[^2]:    ${ }^{1}$ Radcliffe-Brown 1926; 19 ff.
    ${ }^{2}$ Ritter 1945; 16.
    ${ }^{3}$ Pleyte 1892.
    ${ }^{4}$ Vatter 1935; 20 ff .
    ${ }^{5}$ Löwenstein 1961; 30, 32.
    ${ }^{6}$ Lommel 1939; 159.
    7 Kruyt 1933; 83. Adriani \& Kruyt 1950-51; II 433.
    ${ }^{8}$ Kaudern 1944; 391.
    ${ }^{9}$ Schärer 1946; pl. xvii. Cf. Stöhr 1959; 36.
    ${ }^{10}$ Vatter 1935; 125 ff.
    11 Vatter 1945; 135. Lommel 1939; 135.
    12 Eberhard 1942; 410.

[^3]:    ${ }^{1}$ Haskins 1963; 32 f .
    ${ }^{2}$ Hentze 1966; 258.
    ${ }^{3}$ Vatter 1935; 121. De Visser 1913; 35.
    ${ }^{4}$ De Visser 1913; 135 ff .
    ${ }^{5}$ Lommel 1939; 84 ff .
    ${ }^{6}$ Lommel 1939; 84.

[^4]:    ${ }^{1}$ Vaillant 1948; 172.
    ${ }^{2}$ Métraux, Baldus, Nimuendaju in Steward (ed.) 1946-59; I 366, 443. III 265.

[^5]:    ${ }^{1}$ Gans 1967; 77, 89.
    ${ }^{2}$ Cf. Boas 1897b.

[^6]:    ${ }^{3}$ The famous counter-example nir-ŗti- "Verderben, Todesgenie, Abgrund" has $-s+r$ - with external sandhi treatment, not underlying $/-r r$ re/

[^7]:    ${ }^{4}$ Such surface refinements as loss of syllabicity in word-final before vocalic initial (posterior to the period evidenced by the RV metrics, but prior to the written versions of the same text) fall outside the scope of the present paper.

[^8]:    ${ }^{5} / S /$ is an archiphoneme covering the neutralization of $/ s \mid$ and $/ r /$ (in wordfinal position when not preceded by $/ a /$ ).

[^9]:    6 T. Ja. Elizarenkova, 'Značenie osnov prezensa v Rigvede', Jazyki Indii. Sbornik statej, Moskva 1961, p. 91-165, especially p. 149. - The Rigvedic instances of íyase and íyate used of Agni as the messenger to the gods are the following: I.141.8, 145,1 (hardly passive as in Geldner's translation), II.6.7, III.3.2, 3.6, IV.2.2, 2.3, 7.8, 8.4, V.3.8, VI.15.9, 59.5, VII.3.3.

    7 To my judgment, the dual terminations and individual words whose finals do not contract in sandhi have nothing to do with an underlying laryngeal, but rather represent special juncture phenomena due to certain emphatic particles attached to the endings of these forms, as described at some greater length in my paper on Gothic nam: nēmum, p. 39 f . below.

[^10]:    ${ }^{8}$ Roman Jakobson, 'Typological Studies and their Contribution to Historical Comparative Linguistics', Proceedings of the 8th International Congress of Linguists, Oslo 1958 , p. $23=$ Selected Writings vol. I, 's-Gravenhage 1962, p. 528 ; Uspenskij, op. cit., p. 196 middle. See also the attempt undertaken by Christian Peeters ( $K Z$ 85 , p. 164) at redefining $\mathrm{IE}{ }^{*} b h^{*} d h * g h$ in terms of distinctive features as "neither voiced nor voiceless and non stop". I think this may be right in so far as it means that the fundamental characteristic of $* d$ and ${ }^{*} d h$ was that of being lenes in contradistinction to the fortis ${ }^{*} t$.
    ${ }^{9}$ N. D. Andreev, "Periodizacija istorii indoevropejskogo prajazyka", Voprosy Jazykoznanija 1957, N ${ }^{\circ}$ 2, p. 8.
    ${ }^{10}$ Uspenskij, op cit., p. 196 (at the top).
    11 This is the way I read Uspenskij's rule, op cit. p. 195 at the bottom of the page, stating that if a given language has "an opposition of tenseness in its consonants" then it does not have "an opposition of consonant intensity".
    ${ }^{12}$ Uspenskij, op. cit., p. 191, middle.

[^11]:    ${ }^{13}$ Holger Pedersen, Die gemeinindoeuropäischen und die vorindoeuropäischen Verschlusslaute, Det Kongelige Videnskabernes Selskab, Historisk-filologiske Meddelelser, bind 32, nr. 5 (1951), p. 12-16, especially p. 16.
    ${ }^{14}$ Holger Pedersen, 'Armenisch und die Nachbarsprachen', KZ 39 (1904), p. 337 .

[^12]:    ${ }^{1}$ Many of the observations included in the following notes were inspired by this discussion, and I gladly acknowledge the help of the contributors, among whom special mention must be made of my distinguished teacher, professor F. O. Lindeman for the keen remarks that provoked notes 10 and 17 below.

[^13]:    ${ }^{2}$ The first part of it was published shortly after the present paper was read: Opyt sravnenija nostratičeskich jazykov. Vvedenie. Sravnitel'nyj slovar' (b-Ḳ) (Moskva 1971). Its implications for the present paper are restricted to a single instance which has been commented upon in note 26 below.

[^14]:    ${ }^{3}$ C. C. Uhlenbeck, "Agens und Patiens im Kasussystem der indogermanischen Sprachen", IF 12 (1901), p. $170 \mathrm{f} . ;$ the same, "Zur Casuslehre", KZ 39, p. 600-03; Holger Pedersen, "Neues und Nachträgliches", KZ 40 (1907), p. 129-217, esp. p. 151-3; the same, Hittitisch und die anderen indoeuropäischen Sprachen (København 1938), p. 83-5; N. van Wijk, Der nominale Genetiv Singular im Indogermanischen in seinem Verhältnis zum Nominativ (Zwolle 1902); Érgativnaja konstrukcija predloženija (Moskva 1950) (mainly translations of Western contributions); Érgativnaja konstrukcija predloženija v jazykach različnych tipov (Leningrad 1967) (Russian contributions), esp. the articles of M. M. Guchman (p. 58-73), A. N. Savčenko (p. 74-90), and I. M. Tronskij (p. 91-4); I. M. Tronskij, Obščeindoevropejskoe jazykovoe sostojanie (Leningrad 1967), esp. p. 81f.; V. V. Ševoroškin, "K istorii indoevropejskogo genitiva", Voprosy jazykoznanija 1957, No. 6, p. 89 f.

    4 On forms of this pronoun not matching these proto-forms, see note 10 below.

[^15]:    ${ }^{5}$ C. Watkins has on several occasions identified the augment with the Luwian sentence connective $a$-, cf. Indo-European Origins of the Celtic Verb. I. The Sigmatic Aorist (Dublin 1962), p. 114; "Preliminaries to a Historical and Comparative Analysis of the Old Irish Verb", Celtica VI (1963), p. 15; "Preliminaries to the Reconstruction of Indo-European Sentence Structure", Ninth International Congress of Linguists (London, The Hague, Paris 1964), p. 1042 ; V. V. Ivanov, Obščeindoevropejskaja praslavjanskaja i anatolijskaja jazykovye sistemy (Moskva 1965), p. 244-9. This is rejected by Friedrich, Hethitisches Wörterbuch, 3. Ergänzungsheft (Heidelberg 1966), p. 49, but still retained by Watkins in Idg. Gr. III, 1 (Heidelberg 1969), p. 40. The theory is supported by the evidence of the Lydian particles $f a-$ and fakexemplifying the intermediary stage where the preverb $f a$ - ( $f$ - before vowels) is used only if the sentence does not begin with the conjunction $f a(k)-$, cf. the interchange of ẽns $\lambda i b i d$ and $f$ ẽns $\lambda i b i d$ in inscription no. 3 of Gusmani's Lydisches Wörterbuch (Heidelberg 1964): \# a-k qis qisred \# fa-k-aś silavad \# fa-t nid ẽnshibid \# a-k-m- $\lambda$ / levś saretas' \# qis-it f-ẽns $\lambda i b i d$ es $\lambda$ vana $/ \ldots$ "and who spares (it, i.e. the burial chamber), and he takes care of (it), and does not damage it, to him / Levs (will be) gracious; but who damages this burial chamber...(Levs will destroy)". The adversative conjunction $f(a)$ - is here treated as a preverb in that it sticks to the verb even when the latter does not occupy the initial position in the sentence.
    ${ }^{6}$ Symbolae . . . Kurylowicz (Wrocław 1965), p. 130 ff .
    ${ }^{7}$ A brief review of the material for this sound-law is given by Laroche, BSL 58 (1963), p. 79. To this should be added Lyc. kbatra "daughter" < *twatra < *dhu- + *-ztr- with zero for the ${ }^{*} \hat{g}(h)$ of Skr. duhitŕ, Gr. $\vartheta v \gamma$ át $\eta \varrho$, as correctly seen by Heubeck, Die Sprache VIII (1962), p. 86, and Laroche, BSL 62 (1967), p. 48.

    8 This etymology is preferable to the one involving IE * $\hat{k} i-$ (Lith. šis, Lat. cis, etc.), since the Luw. cases of zero for Hitt. $k$ seem to contain IE $* \hat{g} h$ or $* \hat{g} \sim * \hat{g} H$ (the alternation of $\varepsilon \dot{\varepsilon} \gamma \omega \dot{v}$ : ahám: H.-Luw. $\overline{-} ; \geqslant v \gamma \alpha ́ \tau \eta \varrho:$ duhitŕ- : Lyc. kbatra; $\mu \varepsilon ́ \gamma \alpha$ : máhi, which is preferable to IE *mek- as a match to Hitt. mekki-: Luw. mai-, Lyc. $m i n ̃ t i$; cf. Laroche, $B S L 58$, p. 79. Thus there is no need for the controversy described by Dunaevskaja, Jazyk chettskich ieroglifov, Moskva 1969, p. 74.

[^16]:    ${ }^{11}$ The forms of the $1^{\text {si }} \mathrm{pl}$. are: Greenl. aki-vu-gut 'we answered", aki-va-r-put "we answered him", aki-ga-vta "when/because we answered". The corresponding Čapl. forms end in (mode-sign and termination): -qu-kut, -qa-x-put, -ja-mta. The three endings are analyzed as *-ku-t, *-pu-t, and *-pta (or *-mta) by Bergsland, IJAL 17 (1951), p. 169, 170, and 168, and by L. L. Hammerich, Personalendungen und Verbalsystem im Eskimoischen (København 1936), p. 164, 107, and 108. The details of the interrelationship of these endings are not clear. Moreover, as IE presents no corresponding triad this information would not be useful to our purpose anyway.

[^17]:    12 Pedersen, Hittitisch, p. 83 ff. See also Watkins, Idg. Gr. III,1, p. 66.
    ${ }^{13}$ The bibliography of this analysis is now considerable, cf. the literature mentioned in notes 3 and 12 above, to which should be added the following: Chr. Stang, NTS 6, p. 29-39; J. Kuryłowicz, BSL 33, p. 1-4 (both 1932), Apophonie (1956), p. 44, Inflectional Categories (1964), p. 61; T. Burrow, The Sanskrit Language (1955), p. 296; V. V. Ivanov, Obščeindoevropejskaja...(1965), p. 137; A. N. Savčenko "Problema proischoždenija ličnych okončanij glagola v indoevropejskom jazyke", Lingua Posnaniensis VIII (1960), p. 44-56; the same, "Kategorija mediuma v indoevropejskom jazyke", BPTJ XX (1961), p. 99-119; Jan Safarewicz, "Les désinences moyennes primaires de l'indo-européen"', Bull. intern. de l'Acad. Polonaise (Krakow 1938), p. 149-156; the same, "Razvitie formativov vremeni v indoevropejskoj glagol'noj sisteme", Problemy indoevropejskogo jazykoznanija (Moskva 1964), p. 13-17; "Le présent indéterminé et le présent déterminé en indo-européen", Symbolae . . Kuryłowicz (Krakow 1965), p. 246-254; I. M. Tronskij, Obščéindoevropejskoe jazykovoe sostojanie (Leningrad 1967), p. 88-91.

[^18]:    14 V. I. Iochel’son, "Aleutskij jazyk v osveščenii grammatiki Veniaminova", Izvestija Rossijskoj Akademii Nauk 1919, p. 144; the same, "Unanganskij (aleutskij) jazyk', Jazyki i pis'mennost' narodov severa, č. III (Moskva-Leningrad 1934), p. 135.

[^19]:    ${ }^{15}$ Iochel'son 1919, p. 148, and 1934, p. 137.

[^20]:    16 A defence of Brugmann's Law which I hold to be right in some form or other, would go far beyond the scope of the present paper.

[^21]:    17 I do not consider the testimony of $m$-stem nominatives like Skr. $k s \underset{\bar{c}}{ } s$, Avest. $z a ̊$ "earth" and Avest. zyå "winter" with preserved Indo-Iranian *-s crucial to the theory. Greek $\chi \vartheta \hat{\vartheta} \dot{v}$, $\chi i \omega \omega v$ have the same nom. form as the ${ }^{\prime} n$-stems ( $\chi \hat{v} \omega \nu$ etc.) which must be due to analogical identification of the two paradigms. The point of departure of this process must have been some case-form that incidentally turned out to be common to ${ }^{*} n$-stems and ${ }^{*} m$-stems. This can only have been the nom. sg., since the two nasals would be kept apart internally (as e.g. gen. sg. Skr. śanas vs. $j m a ́ s)$. The old ${ }^{*} m$-stem nominatives were, then, ${ }^{* d h} \hat{g} h o \bar{o}$ and ${ }^{*} \hat{g} h i{ }_{\lambda} \bar{o}$ (or ${ }^{*} \hat{g} h i \underset{i}{e}$ ) which have been variously reshaped in the individual languages: Indo-Iranian seems to have departed from the acc. where kṣám // zqm is probably the regular phonetic treatment of IE *dhghom-m involving the same kind of simplification of final sonant cluster as seen in ${ }^{*} g^{w}{ }_{\text {ow-m }}>{ }^{*} g^{w_{o} m}$ and ${ }^{*}$ diew- $m>{ }^{*}$ diem. The coalescence of this acc. formation with that of root-nouns like Skr. vayo-dhám "bestowing strength" and Avest. mazdąm entailed the analogical nominatives $k s a_{a} s / / z a ̊$ on the model of vayo-dhá́s // mazdå. In Greek the secondary *n-stem paradigm restored the nasal in the nominative: ${ }^{*} \chi \vartheta \omega$, gen. ${ }^{*} \chi \vartheta \circ \mu \circ \varsigma \rightarrow{ }^{*} \chi \vartheta$ ॰ $\chi \vartheta o ́ v o \varsigma ~ \rightarrow ~ \chi \vartheta \not ́ v \nu \chi \vartheta o ́ v o \varsigma . ~ O ~ I r . ~ d u ́, ~ g e n . ~$ don "place, earth" presents the same analogy to the ${ }^{*} n$-stem type cú, gen. con "dog". Latin hiems hiemis probably developed from an old paradigm *hiē *himes (cf. Avest. zyå zimō) through the stages *hiēms (nasal and *-s reinstated in the nom.) >hiems (Osthoff's Law) with the analogical gen. *hiemes >hiemis. A retention of the regular nom. form with loss of nasal and lengthening of the radical vowel is perhaps seen in Greek $\delta \tilde{\omega}$, gen. $\delta \dot{\omega} \mu \alpha \tau o \varsigma$. The word is neuter, but the lengthened vowel appearing in $\tilde{v} \delta \omega \varrho$ (as against Hitt. watar) and reflected in Arm. awr (as against Gr. $\tilde{\eta}^{\pi} \mu \alpha \varrho$ ), is probably indicative of the situation that inanimate nouns, contrary to the general belief, could also form the ergative case, though apparently to a much more limited extent than animate nouns.

[^22]:    ${ }^{18}$ Elmar Seebold, in a highly speculative article received in this country immediately after the present paper was read, entitled "Versuch über die Herkunft der indogermanischen Personalendungssysteme", KZ 85 (1972), p. 185-210, reviews the theory (p. 207) that identifies the IE opposition ${ }^{*}-m$ : ${ }^{*}-H_{2} e$ with the Uralic opposition reflected in Hungarian $-m$ of the "objective conjugation" vs. $-k$ of the "subjective conjugation". This may very well be correct as far as it goes. I would merely suggest the amendment that the IE triad ${ }^{*}-m:{ }^{*}-H_{2} e:{ }^{*}-\bar{o}$ represents a more original system than the Hungarian dichotomy. If there is any shred of truth behind the theory of "The Eskimo-Uralic Hypothesis" described by inter alios Knut

[^23]:    Bergsland, Suomalais-ugrilaisen Seura Aikakauskirja 61,2 (1959), this point of view is supported by the further testimony of the Eskimo three-fold opposition - $刀 a$ : -ka : -ma.
    ${ }^{19}$ E. Laroche, 'Un 'ergatif' en indo-européen d'Asie Mineure", BSL 57 (1962), p. 23-43. See also Ivanov, Obsčéindoevropejskaja . . ., p. 51-54.
    ${ }^{20}$ J. Vendryes, Celtica 3 (1956), p. 185-197.

[^24]:    ${ }^{21}$ Einfuhrung in die Laryngaltheorie (Berlin 1970), p. 100 f.

[^25]:    22 "Aleutskij jazyk" in: Jazyki narodov SSSR V, p. 386 ff.
    ${ }^{23}$ Iochel'son 1934 (see note 14 above), p. 137.
    ${ }^{24}$ IJAL 17 , p. 170 (no. $174=$ no. 172 ; no. $184=182$ ); cf. the translations of morphemes no. 152 "you (sg.), himself", 154 '"you two, themselves", and 155 "you all, themselves' on p. 169.
    ${ }^{25}$ Iochel'son 1919 (see note 14 above), p. 313.

[^26]:    ${ }^{26}$ Illič-Svityč, Opyt sravnenija nostratičeskich jazykov (Moskva 1971), p. 6 (with note 2 by V. A. Dybo) and 227 operates with an allophonic assibilation of Nostratic * $t$ in the position before Nostr. *i. However, his reconstructions $t i-$ "thou" for Proto-Altaic, Proto-Uralic, and Proto-Dravidian (p. 6), if correct, exclude this as the origin of the IE verbal ending *-s. Also Seebold (loc.cit., p. 191 f . and 197 f .) proposes to see an old alternation $t \sim s$ conditioned by factors that have later become blurred (unstressed $\hat{\delta}, \dot{\eta}$, oi, $\alpha \hat{i}$ : stressed $\tau o ́, \tau o ́ v, \tau \eta \dot{\eta} v$ etc.?). It would be unwise to reject this as impossible; it should rather be kept in mind as an alternative solution giving fair competition to the theory expressed in the present paper.
    ${ }^{27}$ T. Burrow "The Sanskrit Precative", Asiatica, Festschrift Weller (1954), p. 35-42; the same, The Sanskrit Language (London 1955), p. 351 f.; Watkins, Sigmatic Aorist, p. 90-3.
    ${ }^{28}$ Sigmatic Aorist, p. 96 and passim. In Watkins' theory *-s was a root enlargement before it came to be perceived as the mark of the $3^{\mathrm{rd}} \mathrm{sg}$. which was in its turn reduced to stem mark and extended to all persons. I am more inclined to take it as a desinence from the beginning, thereby explaining its lack of ablaut variation. Calling the ${ }^{*}$-s an "élargissement" (rather than "suffixe") christens the problem, but it does not solve anything, as correctly seen by Kuiper, Vedic Noun-Inflexion (Amsterdam 1942), p. $6{ }^{1}$.
    ${ }^{29}$ Ibid. p. 52-60.

[^27]:    ${ }^{1}$ See, e.g., Thumb-Hauschild, Handbuch des Sanskrit, II Formenlehre, Dritte ... Auflage (Heidelberg 1959), p. 286f (§522); L. Renou, Grammaire de la langue védique (Lyon-Paris 1952), p. 277; or T. Burrow, The Sanskrit Language (London 1955), p. 341 f.

[^28]:    ${ }^{2}$ Rudolph Thurneysen, A Grammar of Old Irish (Dublin 1946), p. 414.

[^29]:    ${ }^{3}$ Written buuāuua which covers the Younger Avestan counterpart of a nonattested Gāthic *bubāva, as correctly seen by Strunk, $K Z 86$ (1972), p. 21. Phonemically, however, I would interpret both forms as /bubāva/.

    4 Strunk, ibid., p. 22.

[^30]:    ${ }^{5}$ Jerzy Kuryłowicz, L’apophonie en indo-européen (Wrocław 1956), p. 45. Though this theory beautifully maps the attested facts, I fail to see exactly how the coalescence of ${ }^{*} e$ and ${ }^{*} o$ into ${ }^{*}$ o in weakened syllables could entail the $o$-grade of the perfect.

[^31]:    ${ }^{6}$ This is the situation found inter alia in Sumerian: "Reduplizierte Verba weisen auf einen 'pluralischen' Begreff hin. Mit welchem Satzteil sich dieser verbindet, ist nur aus dem Satzzusammenhang zu ermitteln. So kann damit das Vorliegen eines pluralischen Subjekts oder Objekts bezeichnet sein, wobei dann meist die Kennzeichnung des Plurals beim Nomen entfällt, aber auch wiederholte oder dauernde Handlung, vereinzelt eine 'intensive' Handlung oder ein 'intensiver' Zustand" (Falkenstein, Das Sumerische, Handbuch der Orientalistik, Abt. I, Bd. II, Abschn. $1+2$, Lief. 1, p. 57). On the whole subject of "plurality", see now the Studien zur verbalen Pluralität (Österr. Akad. d. Wiss., Phil.-hist. Klasse. Sitzungsberichte, Nr. 259, Abhandlung 1, Wien 1968) by Wolfgang Dressler, especially p. 84 f on reduplication.

[^32]:    ${ }^{1}$ I borrow this didactic example from Nils Sjöstrand's Ny latinsk grammatik ${ }^{2}$ (Lund 1960), p. 253.
    ${ }^{2}$ Alfred Ernout \& Francois Thomas: Syntaxe latine (Paris 1959), p. 248.

[^33]:    ${ }^{3}$ On this form, see E. Benveniste in Symbolae . . Kuryłowicz (Krakow 1965), p. 25-33. Also Calvert Watkins: Geschichte der indogermanischen Verbalflexion ( $=$ Indogermanische Grammatik, Band III, erster Teil (Heidelberg 1969)), p. 150.

    4 The arguments against the equation of Latin $-b$ - with OIr. - $f$ - can be seen in Thurneysen, Grammar, p. 637. Further information in Watkins's exposé in Ériu XX (1966), p. 69-72. Valuable is also the compte rendu of the latter by E. Bachellery in Études celtiques XII,1 (1968-9), p. 322-5.
    ${ }_{5}$ Thurneysen, Grammar, p. 21. In his Aspirationen i irsk, p. 69, Holger Pedersen wrote as long ago as 1897, "I consider it very doubtful whether one may conclude from this that this $f$ (scil. the one from *sw) was different from the usual $f^{\prime \prime}$. Unfortunately, Pedersen did not support this statement by any further argumentation.

[^34]:    ${ }^{6}$ Watkins, The origin of the f-future, Ériu XX (1966), p. 67-81, with a short Addendum, ibid. p. 93.

[^35]:    7 Alf Sommerfelt, Le futur irlandais en -f-, MSL XII (1921), p. 230-2. On the theory of consonant gradation see especially Sommerfelt's Consonant quantity in Celtic, NTS XVII (1954), p. 102-18 (esp. p. 110f). Both articles have been reprinted in A. Sommerfelt, Synchronic and diachronic aspects of language (The Hague 1962). A phonemic evaluation of the Celtic reflex of IE *sw has been made explicit by Eric P. Hamp as a note to his Consonant allophones of Proto-Keltic, Lochlann I (1958), p. 209-17 (esp. p. 211 and 217). A laconic rule, "Intervok. sv, $\beta v$ wird zu $f$ " has found its way into Julius Pokorny's Altirische Grammatik, Berlin 1925 (new impression 1969), p. 27.

[^36]:    ${ }^{13}$ In Celtica vol. 3 (1956), p. 284-9.

[^37]:    ${ }^{1}$ To this question, cf. my remarks on the alleged Hittite "Lautverschiebung" in Note 16 of my paper "Some Linguistic Universals Applied to Indo-European" published in the present collection, p. 12 f . above.
    ${ }^{2}$ Archivium Linguisticum 10 (1950), p. 79-99, esp. 81.
    ${ }^{3}$ F. O. Lindeman, Einführung in die Laryngaltheorie (Berlin 1970), Chapter IV, with the table p. 101.

    4 The transcription by' is that of Gelb Hittite Hieroglyphs III (Chicago 1942).
    5 The attitude of different scholars to this question (Gelb, Meriggi, Laroche, Mittelberger, Bossert) has been reviewed by Dunaevskaja in Jazyk chettskich ieroglifov (Moskva 1967), p. 61 f .

[^38]:    ${ }^{6}$ On the Lydian words, see Gusmani Lydisches Wörterbuch (Heidelberg 1964) s. uu. The etymologies have been allotted a fuller treatment by Ševoroškin in Lidijskij jazyk (Moskva 1967), p. 50 and 52.
    ${ }^{7}$ Laroche BSL 53 (1958), p. 182. Cf. also Gusmani IF 68 (1963), p. 287 f . Gusmani translates "Strateg, Strategie" in Archiv Orientální 36 (1968), p. 9.
    ${ }^{8}$ It can hardly be doubted that the Lycian forms prñnawaұa (40c8) "I built (it)", prñnawate (passim) 'he built (it)", prñ̃nawate (6) "they built (it)" contain an enclitic object pronoun which is absent in the corresponding forms without nasalization prñnawaұa* (cf. pijaұa matching pijaұa), prñnawate (passim), prñnawate* (cf. pijęte: pijete). Hittite -hun and Luw. -ha of the $1^{\text {st }}$ sg. prt. may be different generalizations, -hun being the old pronominal form presenting the accusative ending seen in apun "eum" and kun "hunc". This is a further corroboration of Pedersen's explanation (Hittitisch und die anderen indoeuropäischen Sprachen, København 1938, p. 59 f ) of asi and uni 'the latter" as the old nom. and acc. of the pronoun $a$-, i.e. as and ${ }^{*} u n$, + the deictic particle ${ }^{*-i}$ of ovizo $\sigma \cdot \hat{i}^{\prime}$, OIr int- $\dot{i}$. The attested acc. -an of the enclitic pronoun - $\alpha$ - (Friedrich Hethitisches Elementarbuch ${ }^{2}$, Heidelberg 1960, $\S 102$ ) must then be the result of later analogical reshaping. I seize the opportunity to add that the somewhat troublesome present endings of Slavic ber- $\rho$, -ešb (-eši only dialectally), -etz, -emə, -ete, -otz may go back to *bherō-(o)m, *-esì-om, *-et-om, *-emo-(o)m, *-ete, *-ont-om, being a compound of the paradigm that has also been preserved in OIr do•biur, • bir (phonetically like dat. nim $<$ *nemesi), beir, • beram, -berid, berat plus an enclitic object pronoun ${ }^{*}$-om added to all forms except the $2^{\text {nd }} \mathrm{pl}$. (which is also the only one not to receive any ${ }_{-r}$ in the OIr deponent flexion).
    ${ }^{9}$ Ševoroškin Lidijskij jazyk, p. 62; Orbis 17 (1968), p. 477; Voprosy Jazykoznanija 1968 No. 6, p. 75 and 79; Ševoroškin and A. Korol'ov Arch. Or. 37 (1969), p. 526 ; Gusmani Arch. Or. 36 (1968), p. 4 f and 12. The interpretation as a verbal form (Puhvel Evidence for Laryngeals p. 84 "he smote" as preterite!) is unacceptable.

[^39]:    ${ }^{10}$ Erroneous use of the word divider, cf. Gusmani Arch. Or. 36, p. 17; likewise Ševoroškin Orbis 17, p. 484.
    ${ }^{11}$ So interpreted by J. Imbert MSL XIX; cf. also Meriggi Rendiconti della Reale Accademia dei Lincei, Classe di scienze . . . VI, IV (1926), p. 449.
    ${ }^{12}$ Holger Pedersen: Lykisk, Nordisk Tidsskrift for Filologi, tredie Række, VII Bind (1898), p. 98.
    ${ }^{13}$ Lykisch und Hittitisch (København 1945), p. 27.

[^40]:    ${ }^{22}$ Meriggi's emendation (Hirt-Festschrift, 1936, p. 264) of wirasajajatinkre to - $\tilde{m} q r^{e} \boldsymbol{e}$ is obviously correct, although the meaning of the passage is totally obscure.
    ${ }^{23}$ Orbis 17, p. 482. The $t$ - is probably not part of this word, cf. the preceding note.
    ${ }^{24}$ Bojan Čop, KZ 85 (1971), p. 26-30.
    ${ }^{25}$ P. Chantraine, Grammaire homérique I (Paris 1958), p. 356.

[^41]:    ${ }^{26}$ Since both $e$ 's of kessera- cannot possibly have been accented, one may ask whether or not the Luwian two-fold representation of Anatolian $/ e /(a$ and $i$ ) is associated with an accentual difference.
    ${ }^{27}$ Friedrich, Heth. El. I ${ }^{2}$, p. 32 f.
    ${ }_{28}$ The forms with -u- of this verb have been collected by Polomé, Evidence for Laryngeals, p. 43 f.

[^42]:    ${ }^{29}$ Lindeman, RHA fasc. 76 (1965), p. 29-32. Probably right despite the doubts expressed by V. V. Ivanov, Chettskij jazyk (Moskva 1963), p. 82 f .
    ${ }^{30}$ A. Martinet, Economie des changements phonétiques (Berne 1955), p. 225 f (already published 1953 as "Non-Apophonic O-Vocalism in Indo-European" in Word 9). Martinet is probably right in considering the vocalism of $\tau \varrho \alpha \tilde{v} \mu \alpha$ as a generalization of the prevocalic alternant.
    ${ }^{31}$ Thus in Geldner's translation of RV I.129.2. The Skr. - $u$ - is also compared to the Hitt. -u-forms by Polomé, loc. cit.
    ${ }^{32}$ Orbis 17, p. 473.

[^43]:    ${ }^{33}$ Ibid., p. 482.
    ${ }^{34}$ Likewise Voprosy jazykoznanija 1968, 6, p. 73.
    ${ }^{35}$ tuwijedi derived from tuwi "Weihung, Weihgeschenk" (Gusmani Arch. Or. 36 , p. $3^{9}$ and $8^{40}$ ).
    ${ }^{36}$ Orbis 17, p. 490.
    ${ }_{37}$ Ševoroškin, ibid. p. 489.
    ${ }^{38}$ Ibid., p. $481^{1}$.
    ${ }^{39}$ Ibid., p. 485.

[^44]:    ${ }^{40}$ The article "Lykische Wörter und Namen" by Korol'ov and Ševoroškin (Arch. Or. 37, p. 523-542) does not touch upon this question either (as would be natural on p. 530 or 542 ).
    ${ }^{41}$ Martinet, Economie, p. 226.

[^45]:    ${ }^{44}$ Neumann, loc. cit., p. 390.
    45 Arch. Or. 36, p. $10^{51}$.
    ${ }^{46}$ Lidijskij jazyk, p. 62.
    ${ }^{47}$ Ibid., p. 52.
    48 Mélanges . . . Holger Pedersen (København-Aarhus 1937), p. 515.
    49 Arch. Or. 36, p. 11.
    ${ }^{50}$ Orbis 17, p. 473.
    ${ }^{51}$ Issledovanija po dešifrovke karijskich nadpisej (Moskva 1965), p. 256.
    ${ }^{52}$ Lidijskij jazyk, p. 57; Voprosy jazykoznanija 1968, 6, p. 73; Orbis 17, p. 470.

[^46]:    Indleveret til Selskabet den 16. september 1975.
    Færdig fra trykkeriet den 8. oktober 1976.

[^47]:    ${ }^{2} 2$. Cor. 12, $1-5: \ldots .$. I will come to visions and revelations of the Lord. I knew a man in Christ above fourteen years ago .... such an one caught up to the third heaven. And I knew such a man. .. How that he was caught up into paradise, and heard unspeakable words, which it is not lawful for a man to utter. Of such an one will I glory: yet of myself I will not glory, but in mine infirmities.
    
    
     " 1 'ि $\omega \sigma ı v$. (Philo About the Contemplative Life ed. by Fred. C. Conyblare, Oxf. 1895, p. 41-42).
    
    
    
     U̇דó tivんv. (Athanasius, Migne Patrologia graeca 26, $933 \mathrm{C}-935 \mathrm{~B}$ ).
    
    

[^48]:    ${ }^{4}$ L. F. Römer, Nachrichten von der Küste Guinea, Kopenhagen und Leipzig 1767, S. 67.

[^49]:    ${ }^{5}$ Father Florenskij quotes Pauly-Wissowa and other current works of classical philology, as well as some articles by himself in The Theological Messenger, and his work on The Meaning of Idealism (1915).
    
    
    
    ${ }^{7}$ Apollonius Rhodius Argonautica II 289.
    
    
    
    ${ }^{9}$ Plato Phædrus 229 B.

[^50]:    ${ }^{10}$ Evgenij Modestov, P. A. Florenskij i ego sovetskie gody (P. A. Florenskij and his Soviet years). Mosty, literaturno-chudožestvennyj i obščestvenno-političeskij al'manach, 2, 1959, p. 419-434, Munich. (Bridges, Literary-artistic and socio-political aımanach).
    ${ }^{11}$ I have not been able to find this entomological paper in the German scientific journals. (The Fluorescence of Lampyris Noctiluca).

[^51]:    ${ }^{12}$ Stolp i utverždenie istiny. In the publication "Östliches Christentum", edited by Nicolai Bubnov and Hans Ehrenberg; Philosophie II, München 1925, pp. 28-194, there is an extract in German translation: Vorwort. 1. Brief. Die beiden Welten. 2. Der Zweifel. 3. Die Trinität. 4. Das Licht der Wahrheit. 5. Der Tröster. 6. Der Widerspruch. 7. Die Sünde. 8. Das Gehenna. 9. Die Kreatur. 10. Sophia. 11. Die Freundschaft. 12. Die Fifersucht. Nachwort. Personalnotizen.

[^52]:    ${ }^{1}$ A. Falkenstein: Archaische Texte aus Uruk. Berlin 1936, p. 77,12 and pl.290,2.
    ${ }^{2}$ A. Salonen: Agricultura Mesopotamia nach Sumerisch-Akkadischen Quellen. Helsinki 1964, p. 37, Tafel V-VII. Professor Salonen makes a clear distinction between the agadibbu, the hand-ard, and the epinnu, the sowing-ard, though we have no pictures of the former.

[^53]:    ${ }^{1}$ P. Dikaios: The Excavations at Vounous-Bellapais in Cyprus. Archaeologia, t. 88, pl. XVIII, Fig. a. See also B. Brentjes: Geräte altorientalischen Bodenbaues. Wissensch. Zeitschrift der Martin-Luther Universität, Halle-Wittenberg, Gesc. Sprachw. VI/4, 1957, p. 681, and Abb. 40.
    ${ }^{2}$ M. Dunand: Fouilles de Byblos. Tome II 1933-1938 Texte. Paris 1954, p. 221, Fig. 236 and pl. CLXV in the volume of planches.

[^54]:    ${ }^{1}$ Salonen op. cit. p. 202. S. N. Kramer : From the Tablets of Sumer, Chapter 10, Indian Hills, Colo. 1956, and: The Sumerians, their Character, History and Culture. Chicago 1963.
    ${ }^{2}$ Salonen op. cit. p. 252 and 257.
    3 Axel Steensberg: A Bronze Age Ard Type from Hama in Syria intended for Rope Traction. Berytus XV, 1964, pp. 111-139.

[^55]:    ${ }^{1}$ Salonen op. cit. p. 121.
    ${ }^{2}$ Brentjes op. cit. p. 679 and Fig. 7 (from R. de Mecquenem: La marre de Nabu).

[^56]:    ${ }^{1}$ Layer J 6-5 (Fugmann, layer J 4). Harald Ingholt: Rapport préliminaire sur sept campagnes de fouilles à Hama en Syrie, Copenhague 1940, p. 45, n. 2. E. Fugmann: Hama, Fouilles et Recherches de la Fondation Carlsberg 1931-38, II, 1: L'Architecture des periodes pré-hellénistiques, Copenhague 1958, Fig. 85 on p. 69, text p. 71.

[^57]:    ${ }^{1}$ Layer J 2. Ingholt op. cit. p. 45, n. 2. Fugmann op. cit. Fig. 98 on p. 77, text p. 75.

[^58]:    ${ }^{1}$ Du Mesnil du Buisson: Le Site archéologique de Mishrifé-Qatna, Paris 1935, Fig. 46, and the same author in Syria VII, 1926, pp. 315.

[^59]:    ${ }^{1}$ Du Buisson op. cit. 1926. Fig. 32 x.

[^60]:    ${ }^{1}$ Du Buisson op. cit. 1935. Fig. 47.

[^61]:    ${ }^{1}$ Du Buisson op. cit. 1926. Fig. 32 y.

[^62]:    ${ }^{1}$ Du Buisson op. cit. 1935. No. 43.

[^63]:    ${ }^{1}$ Steensberg op. cit. Fig. 7 p. 127 and pl. XVI, c-d.
    ${ }^{2}$ Steensberg op. cit. Fig. 6 a-d, p. 121 and pl. XV, c-d.

[^64]:    ${ }^{1}$ In H. Frankfort: Cylinder Seals, London 1939, p. 5 is explained the technique before iron came into use: "All cylinder seals were cut, drilled through and decorated by means of copper tools, which, in the case of hard stones, were probably fed with emery powder". In a private house at Tell Asmar a pot was found containing several gravers and small-edged chisels, and one piece "which is best explained as the borer belonging to a drill". In the case of the mar mentioned above, the copper stylus must have been furnished with a double point.
    ${ }^{2}$ See Tools and Tillage 1971: B. A. Sramko: Der Hakenpflug der Bronzezeit in der Ukraine.

[^65]:    ${ }^{1}$ See Tools and Tillage 1973: A. Steensberg: A 6000 Year Old Ploughing Implement. H. Schwabedissen: Die Ausgrabungen im Satruper Moor. Offa 16, 1957-58.

[^66]:    ${ }^{1}$ P. V. Glob: Ard og Plov i Nordens Oldtid, Aarhus 1951. A. Steensberg: Virgil's Wheel-Ard and the Two Mouldstrokers, Folk and Farm, Essays in honour of Dr. A. T. Lucas, Dublin 1976. Paul Leser: Entstehung und Verbreitung des Pfluges, photographic reprint by the International Secretariat for Research on the History of Agricultural Implements, National Museum, Brede, DK-2800 Lyngby, 1970. S. Avitsur: The Native Ard of Eretz-Israel. Tel-Aviv 1965.

[^67]:    ${ }^{1}$ Layer J 1. Ingholt op. cit. p. 45, n. 3 and pl. XV, 3. Fugmann op. cit., Fig. 103 on p. 80 , text p. 77.

[^68]:    ${ }^{1}$ S. Avitsur op. cit. Fig. 12, p. 53.
    ${ }^{2}$ A. Moortgat: Assyrische Glyptik, Fig. 67. Paul Leser op. cit. p. 247, Fig. 105. B. Brentjes: op. cit. Fig. 38. A. Salonen op. cit. pl. VIII,1.
    ${ }^{3}$ B. Brentjes: Untersuchungen zur Geschichte des Pfluges I (Bronzezeit), Wissenschaftliche Zeitschrift der Martin-Luther Universität Halle-Wittenberg, Jahrg. II, 1952/53, Heft 10, Fig. 11.

[^69]:    ${ }^{1}$ A. Steensberg: Parallel Ploughing with Alternatively Sloping and Upright Ard in Columella, Folk-Liv 1957/58.

[^70]:    1 A. Steensberg: Drill-sowing and Threshing in Southern India Compared with Sowing Practices in Other Parts of Asia. Tools and Tillage 1971.

[^71]:    Printed in Denmark by Bianco Lunos Bogtrykkeri A/S. ISBN 87-7304-066-5

