Ancient Egyptian fauna: a lexicographical study.

Wassell, Belinda Ann

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Ancient Egyptian Fauna: a lexicographical study

(Two volumes)

Volume 1

Belinda Ann Wassell

Thesis submitted for the degree of doctor of philosophy to the University of Durham.


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26 AUG 1992
This thesis has sought to assemble and evaluate a comprehensive corpus of texts and secondary material relating to the fauna of ancient Egypt. It is in the first instance a philological study, using as a starting point the Wörterbuch der ägyptischen Sprache produced in the 1920s and '30s, though evidence from archaeological and representational material has been included where appropriate.

Previous work in this field has been sporadic and of varying quality. Much of it is not recent or is based on older reference sources. It therefore seemed appropriate to attempt a compilation and updating of existing studies. Much effort has been put into using recent zoological works to provide lists of species from modern Egypt with which to compare both the ancient records and the taxonomic information given in other Egyptological studies.

The thesis is divided into 20 chapters. The first examines, by way of introduction to the rest of the study, aspects of zoological classification in ancient Egypt, making comparisons with work carried out by anthropologists on classificatory systems used by modern 'primitive' cultures. The remainder of the thesis is divided into three parts. The first, comprising chapters 2 to 14, examines the names given by the ancient Egyptians to various mammals; each chapter discusses a certain group of mammals (e.g. Cattle; Dogs and Similar Animals; Lions and Other Cats). The second part, comprising chapters 15 to 17, concerns birds. Part three comprises chapters 18 to 20 on fish, reptiles and amphibians, and insects respectively.

The advantage of this type of study lies in the avoidance of translations formulated in isolation from related material. Altogether some 600 animal names, spanning c.3000 to 500 BC, have been discussed; a number of previous translations have been revised and many new or more precise translations suggested.
No material contained within this thesis has previously been submitted for a degree in this or any other University.

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List of Abbreviations

For abbreviated forms of articles and monographs cited in the thesis see the Bibliography at the end of the text.

**General**

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<tr>
<td>Ar.</td>
<td>Arabic</td>
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<tr>
<td>cf</td>
<td>confer, compare</td>
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<tr>
<td>col.</td>
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<td>Das Deutsche Archäologische Institut, Kairo</td>
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<tr>
<td>det.</td>
<td>determinative</td>
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<td>Dyn</td>
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<tr>
<td>ed.</td>
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<tr>
<td>EES</td>
<td>Egypt Exploration Society</td>
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<tr>
<td>eg</td>
<td>Exempli gratia, for example</td>
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<tr>
<td>esp.</td>
<td>especially</td>
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<tr>
<td>etc.</td>
<td>et cetera, and so on</td>
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<tr>
<td>IFAO</td>
<td>L'Institut Français d'Archéologie Orientale</td>
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<tr>
<td>id.</td>
<td>idem</td>
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<tr>
<td>ie</td>
<td>id est, that is</td>
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<tr>
<td>IP</td>
<td>Intermediate Period</td>
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<tr>
<td>fem.</td>
<td>feminine</td>
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<td>Festschrift</td>
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<td>Gr.</td>
<td>Greek</td>
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<tr>
<td>l.</td>
<td>line(s)</td>
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<td>LP</td>
<td>Late Period</td>
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<td>masculine</td>
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<td>max</td>
<td>maximum</td>
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<td>MK</td>
<td>Middle Kingdom</td>
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<tr>
<td>ms</td>
<td>manuscript</td>
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<tr>
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<td>NK</td>
<td>New Kingdom</td>
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<tr>
<td>no.</td>
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<td>Old Kingdom</td>
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<td>page(s)</td>
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<td>P.</td>
<td>papyrus</td>
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<td>pl.</td>
<td>plate(s)</td>
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<tr>
<td>pt.</td>
<td>part(s)</td>
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<td>publ.</td>
<td>published (by)</td>
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rep(s) = representation(s)
recto = recto
rev. = revised
suppl. = supplement
tr. = translated (by)
vol. = volume
verso = verso
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<td>Ägyptologische Forschungen</td>
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<td>Archiv für Orientforschung</td>
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<td>AJA</td>
<td>American Journal of Archaeology</td>
</tr>
<tr>
<td>AnOr</td>
<td>Analecta Orientalia</td>
</tr>
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<td>ASAE</td>
<td>Annales du Service des Antiquités d'Égypte</td>
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<tr>
<td>BdE</td>
<td>Bibliothèque d'Étude</td>
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<tr>
<td>BIE</td>
<td>Bulletin de l’Institut d’Égypte</td>
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<td>Bulletin de l’Institut Français d’Archéologie Orientale du Caire</td>
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<tr>
<td>Bior</td>
<td>Bibliotheca Orientalis</td>
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<td>BSSEG</td>
<td>Bulletin de la Société d’Égyptologie de Genève</td>
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<td>BSFE</td>
<td>Bulletin de la Société Française d’Égyptologie</td>
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<tr>
<td>CdE</td>
<td>Chronique d’Égypte</td>
</tr>
<tr>
<td>FIFAO</td>
<td>Fouilles de l’Institut Français d’Archéologie Orientale du Caire</td>
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<tr>
<td>GLECS</td>
<td>Groupe Linguistique d'Études Chamito-Sémitiques</td>
</tr>
<tr>
<td>GM</td>
<td>Göttinger Miscellen</td>
</tr>
<tr>
<td>HAB</td>
<td>Hildesheimer Ägyptologische Beiträge</td>
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<td>HAS</td>
<td>Harvard African Studies</td>
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<tr>
<td>JARCE</td>
<td>Journal of the American Research Centre in Egypt</td>
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<td>JEA</td>
<td>Journal of Egyptian Archaeology</td>
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<td>JNES</td>
<td>Journal of Near Eastern Studies</td>
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<tr>
<td>JRAS</td>
<td>Journal of the Royal Asiatic Society of Great Britain and Ireland</td>
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<tr>
<td>KDVS</td>
<td>Der Kongelige Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser</td>
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<tr>
<td>MÄS</td>
<td>Münchner Ägyptologische Studien</td>
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<td>MDAIK</td>
<td>Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo</td>
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<td>MCAF</td>
<td>Mémoires publiés par les Membres de la Mission Archéologique Française au Caire</td>
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<td>NANG</td>
<td>Nachrichten von der Akademie der Wissenschaften zu Göttingen, Phil-hist Klasse</td>
</tr>
<tr>
<td>OLZ</td>
<td>Orientalistische Literaturzeitung</td>
</tr>
<tr>
<td>OMRO</td>
<td>Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden</td>
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<tr>
<td>PSBA</td>
<td>Proceedings of the Society of Biblical Archaeology</td>
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<tr>
<td>Acronym</td>
<td>Title in French</td>
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<td>Rde</td>
<td>Revue d'Égyptologie</td>
</tr>
<tr>
<td>Rec.Trav.</td>
<td></td>
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<tr>
<td>RHHR</td>
<td>Revue de l'Histoire des Religions</td>
</tr>
<tr>
<td>SAK</td>
<td>Studien zur Ägyptischen Kultur</td>
</tr>
<tr>
<td>SBAW</td>
<td>Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Phil-hist Abteilung</td>
</tr>
<tr>
<td>Unt</td>
<td>Untersuchungen zur Geschichte und Altertumskunde Ägyptens</td>
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<tr>
<td>WZKM</td>
<td>Wiener Zeitschrift für die Kunde des Morgenlandes</td>
</tr>
<tr>
<td>ZÄS</td>
<td>Zeitschrift für Ägyptische Sprache</td>
</tr>
<tr>
<td>ZDMG</td>
<td>Zeitschrift der Deutschen Morgenländischen Gesellschaft</td>
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INTRODUCTION

Egypt provides unique evidence on the existence and naming of an ancient fauna. Reliefs and paintings, especially those of the Old and Middle Kingdoms, illustrate a diverse mammal-, fish- and avifauna. The hieroglyphic script itself, representing a number of basic sounds with the figures of animals and comprising many other animal figures as determinatives, gives an insight into the importance of the animal world for the ancient Egyptians not offered by other languages.

In the past, studies of the fauna of ancient Egypt have been somewhat haphazard. Modern publications, notably those of Störk, Boessneck, Gamer-Wallert and Brunner-Traut, are, like the older works, of varying emphasis and quality. The first collection of animal names was made by Hartmann in 1864; he gave translations of some 30 terms. Later, more specific, studies were made by, for example, Gaillard and Loret, whose interest and sponsorship prompted the extensive and generally excellent work of Keimer on a wide range of subjects. Keimer had hoped to write a 'grand ouvrage' covering the whole field of botany and zoology in ancient Egypt - a similar wish was also expressed by de Rachewiltz - but neither lived to fulfil their ambitions.

There seems to be a case, therefore, for producing a work which brings together all recorded animal names, together with references to the studies made of them, and also to update and evaluate this material. Particular attention has been paid in this study to the recent zoological record, as this subject has (as Keimer noted) been much neglected in the past. Nevertheless it does not aim to be a complete zoological treatise, and archaeological evidence, which would furnish information on fauna both during and before dynastic times, has been ignored except where of particular interest. It is often difficult to know how far to trust identifications proffered in archaeological works, especially the older studies, yet it would require a considerable degree of zoological and palaeontological knowledge to check or revise them. Such a study is beyond the scope of this thesis but is a subject which would repay further investigation.

The assembling of a complete corpus of texts pertaining to animal names would be a vast task and various restrictions have been placed on the body of material presented here. Greco-Roman temple inscriptions and demotic texts, which form (from the point of view of grammar and orthography) discrete groups of documents, have only been cited where
comparative references are of especial interest. A similar position has been adopted with regard to Coptic material. This has resulted in a restriction of the period from which references have been taken to c.3000 to 500 BC. This has the further effect of excluding certain animals which, although now considered typically Egyptian, were not introduced into Egypt until after those dates, such as the camel.

Symbolism has been considered to a limited degree only and a distinction has been drawn between those animal names which occur solely in 'rational' texts (for example, those recording historical or medical information) and those which are attested exclusively in texts of a religious nature (such as the books concerning the Underworld). Thus 'Fabeltiere' are not considered, and a number of the names of snakes from the Underworld recorded by Wb, many of which appear to have solely descriptive or epithetical force, have been omitted. 9

The use of an ancient language as the basis for any study entails specific problems. Texts are inevitably limited in number and can be preserved from sometimes widely differing dates and provenances. Dialectal variations may be undetectable or easily misinterpreted.10 A word's meaning may change dramatically over a decade, yet translations may rest on only a few attestations scattered over several centuries. Deduced meanings cannot be checked by asking native speakers.

The search for translations of animal names in the face of these difficulties has often led to the comparison of Egyptian words with those of other languages, notably Semitic languages, Coptic and, via Coptic, Greek and Arabic. Weeks11 has recently drawn attention to the dangers of being influenced by one's own culture when attempting translations, and the same can be said of the influences of other - even ancient - cultures. The relationship between these languages is extremely complex (and inadequately researched) and simple comparisons do not take into account these complexities, although they may be of some use when all other evidence is lacking.

There is a certain element of chance at work in the preservation of records in any ancient language. In Egypt literature of a religious nature far outweighs other texts surviving from ancient times, and this will inevitably have restricted the type and number of animal names to have been preserved. Many animal names must have been used which are not to be found in the extant texts. The highly specialised medical corpus contains many terms unknown from other sources and the same can
be said of the unusual tomb paintings at Beni Hasan which show birds not depicted or named elsewhere; these examples indicate that other specialised texts (had they survived) would also reveal their own specific terms. Many names are found largely, if not solely, in descriptions of kings or gods - obviously not all animals are suitable for such comparisons.

The translation of animal names is both aided and hindered by the representations which survive from ancient Egypt. Loret believed that collecting all the representations of animals would result in a complete record of the ancient fauna. This is undoubtedly untrue; species lists from modern Egypt generally show a very much greater diversity than the ancient records, pictorial or textual. Although the Egyptians divided the animal kingdom into classes of beings they did not develop the systematic analysis of the modern Linnaean classification. The animals drawn and named were those of greatest significance; for example, cattle were frequently shown and were assigned a great variety of names but the zoologically vast class of insects received little attention.

In many instances animals were depicted accompanied by their names, though in some cases it is obvious that the wrong name has been chosen. In other cases, especially when a word is but infrequently attested, it can be difficult to decide whether the association of picture and name is to be trusted. In yet other cases the representation itself may be unhelpful, either because it is badly drawn by an inept artist or so stylised that the animal is unrecognisable. In general, the Egyptians did not draw animals purely out of scientific curiosity (the Beni Hasan paintings mentioned above seem to be a notable exception) and this should be borne in mind when interpreting the tomb scenes.

This last point is seldom taken into account by climatologists who have referred to evidence from Egypt when reconstructing the palaeoclimate of Africa. It is known from rock drawings in the central Sahara that this desert at one time supported abundant life, both human and animal, on extensive watercourses, and it is evident that considerable desiccation has led to the desert conditions prevailing today. The Saharan rock drawings and the reliefs of ancient Egypt have been used to date the progress and degree of this desiccation, since they show animals which are no longer native to northern Africa, but only to more temperate regions. Old and Middle Kingdom Egyptian scenes have been held to support the theory of a
'Neolithic wet phase' in the third millennium BC when savannah conditions prevailed in now arid areas; Butzer in particular has concentrated on the relationships between climatic fluctuations and Egyptian evidence, though not without receiving considerable criticism.

The animals of ancient Egypt have undoubtedly not succumbed to climatic change alone but also to the effects of man; indeed some of the species depicted in ancient reliefs and paintings became extinct in Egypt only in the last century or at the beginning of this. Hunting may well have eliminated species such as the fallow deer and bear before the climate could affect what may in any case already have been marginal populations supported only by locally favourable conditions.

The evidence is also distorted by the varied provenance of the representations. Old Kingdom records tend to be from the Memphite area in the north of the country, where the king and capital were established, an area cooler and wetter that other parts of Egypt. Middle and New Kingdom sources from more southerly, drier, areas inevitably show a more restricted fauna.

As Shaw has pointed out, there are a number of problems associated with the interpretation of pictorial data, especially in view of the present paucity of knowledge about animal ecology and the extent to which animals (particularly large animals) - and, therefore, pictures of animals - are a reliable indicator of environmental conditions. Ancient Egyptian art, being static rather than dynamic, is particularly prone to misinterpretation - depictions of animals may have been copied from tomb to tomb because of their suitability as subject matter rather than because the artist drew his inspiration from life. Textual evidence is similarly unreliable. Phrases such as 'roaring like a leopard' can obviously survive in a language long after the animal of the simile has disappeared. This is even more the case with texts which use archaising language or are rigid in their phraseology, such as those describing the exploits of New Kingdom pharaohs.

Despite these reservations the Egyptian evidence is of considerable interest in the study of climate and zoogeography, giving at least some indication of faunal movement since the beginning of the third millennium BC. Even today the Nile Valley is regarded as an important
transitional zone between the Palaearctic and Ethiopian faunal regions and this importance seems to have been even greater during dynastic times. The presence in Egypt of now purely Palaearctic species, such as the fallow deer and bear, and purely sub-Saharan forms, such as the baboon and African elephant, attest to this. It is notable that some species were absent from ancient records which, because of their present distribution, would have been expected to occur. The zebra today shares much of the same habitat as the giraffe, which was known to the ancient Egyptians, yet was not encountered by them even on their journeys to the more southerly land of Punt. Accurate analysis of faunal remains would certainly help to clarify the pattern of — and perhaps be able to suggest reasons for — ancient distributions and increase current understanding of animal ecology.

As the title of this study indicates, information on Egyptian fauna has been taken in the first instance from written records. Material was collected initially from the Wörterbuch der Ägyptischen Sprache, and was supplemented from the original record slips of this dictionary in Berlin and from other dictionaries and collections, notably Meeks' Année Lexicographique.

Some 600 words are discussed in 20 chapters, arranged, for ease of reference, with words denoting similar animals grouped together. An index of terms indicates the pages where the main discussion of the term (or animal) takes place. The Bibliography is arranged in four sections. Those sections concerned with zoological and Egyptological works contain both abbreviated and full references. Other references, which appertain only to single or small groups of words or animals, are cited in full in the appropriate place in the text. They may be found by referring to the Index for the animal name in question.

I wish to thank many people for their assistance in bringing this study into existence: my supervisor, Dr. W. J. Tait; the staff of the libraries of the University of Durham and the Griffith Institute, Oxford; the staff of the DAI, Cairo; all those 'im Wörterbuch' at the Akademie der Wissenschaften in (East) Berlin, especially Dr. A. Burkhardt and Dr. C. Tietze; and my infinitely patient typists, Mr. G. & Mrs. F. Lawson. My thanks go particularly to the relatives and friends who have supported and sustained my endeavours, and to whom this thesis is dedicated.
Chapter 1: Zoological Classification in Ancient Egypt

Research since the 1950s into folk biosystematics, 'prescientific man's classification of his biological universe', has indicated a considerable degree of consistency in the ways in which societies categorize the animals with which they are familiar.

The most inclusive category, which has been termed the 'unique beginner', and which corresponds to English 'animal', is seldom named in pre-scientific classificatory systems, even if the category is perceived: there may be no single term for 'plant' or 'animal' in a language, though 'plants' and 'animals' are never confused. The next most inclusive categories are almost always named. These 'life form' groups are, in English, 'mammal', 'bird', 'fish', 'reptile', 'insect'. Work done on these 'life form' terms suggests that these categories are universally recognized, though not all need be named. The life form classes most commonly named are those focusing on birds, fish and snakes. The next most commonly named class focuses largely, but seldom exclusively, on insects (it may comprise, for example, other small creatures such as worms or frogs). The 'mammal' class is 'encoded' last of all, probably because of the greater visibility and (economic) importance of mammals to man - the distinction horse/pig may be as significant to man as fish/bird.

No work has been carried out previously on zoological classifications in ancient languages, though various studies of animal names in Greek, Latin, Akkadian and Hebrew do exist. Despite the disadvantages of using a 'dead' language as a data base - there can be no truly objective way of checking evidence, which in itself is distorted by chance of survival - it is of interest to see whether the ancient material corroborates the modern. Ancient Egyptian does seem to provide notable parallels.

A demotic myth describing the griffin notes that its body was made up of parts of various creatures, including man (Spiegelberg's translation): 'Da sagte der Hör-Vogel zu dem Seh-Vög...': In Wahrheit (XV, I) weißt du nicht, daß der Greif der [...] ist, der Hirt von allem, was (2) auf Erden ist, der Vergelter, dem kein Vergelter vergilt? Sein Schnabel ist der des Falken, seine Augen (3) die eines Menschen, sein Leib der eines Löwen, seine Ohren wie des Chenfi-Fisches (oder) des Sh3h-Fisches des Meeres, (4) sein Schwanz der e...
the earth' and this has been adduced as evidence that the Egyptians employed a system of 'five-fold classification', ie man, mammal, bird, fish and snake, to categorize all living things.7

A number of texts from the Middle and New Kingdoms, many of them hymns recounting the creation of the world, do indeed specifically name categories of animal often corresponding in some degree to the life form classes identified by anthropologists:

1. P. Ermitage 1116A, rto 1.132-133:
   'He [Shu, as creator god] created for them [mankind] plants, *fwt*, (3pdw) and *rmw* to feed them'.

2. Turin Stela No. 104, 1.4:
   recording some kind of census 'de tous les boeufs, de tout la volaille, de tout le petit bétail'.

3. Amarna I, 36 (= LD III, 97a):
   tr. Davies, p. 50: 'to give life to all that thou hast made, viz. mankind, cattle, flying and fluttering things, with [all kinds] of reptiles which are on the earth' (reading ddft nbt ntv).

4. Amarna III, 29:
   tr. Davies, Amarna, p. 31: 'viz. all mankind, [cattle] flying and fluttering things [with] all kinds of reptiles which are on the earth'.

5. Amarna IV, 32:
   tr. Davies, p. 28: 'mankind and all herds and flocks, and the trees which grow on the ground'.

6. Bibl Nat 20, 11 (hymn to Osiris):
   'all his *mnnt*, all things which fly (up), all things which fly down, his *ddft*, his *fwt* of the desert'.10
7. P. Tur PuR 131, 13 (= HO I, pl.3, No.2: O. Petrie 7):
'gods, people, ḫtw, mmmn, ddšt, ḫmvw, ḫ(w)wš'.

8. KRI V, 404, 10-11:
'You [the sun god] are the engenderer who brings into being your creatures, consisting of mankind (and) gods, of ḫtw, of mmmn (and) of all ḫštš'.

9. BOD 125:
tr. Allen, BOD, p.97: 'I have not driven small cattle from their herbage. I have not snared birds for the gods' harpoon tips; I have not caught fish of their [lagoons]'.

10. BOD 154, 6:
tr. Allen, BOD, p.154: 'But every creature likewise that shall die, the whole of them altogether - even all quadrupeds, all fowl, all fish, all snakes, all worms - living or dead, they are yonder, having passed on, after all the worms have finished (their work)'.

11. BOD 154, 5:
tr. Allen, BOD, p.154: The deceased rots when he has gone to Shu, as do gods, goddesses 'all fowl, all fish, all snakes, all worms, all quadrupeds, the whole of them altogether'.

12. P. Leiden 350, 2, 7-8:

13. P. Chester Beatty IV, rto 7, 5-7:
tr. Gardiner, HPBM 3rd ser., p.32: 'Praise to thee, Amen-Rē-Atūn-Harakhty, who spoke with his mouth and there came into being men, gods, cattle and all goats in their totality, (yea and) all that flieth and alighteth'.
14. P. Ch. B IV, rto 10, 7:

tr. Gardiner, op.cit., p.34: 'Goats and cattle turn to thee. Flying things spring aloft unto thee' (same hymn as previous example).

15. P. Ch. B IV, rto 12, 5:

tr. Gardiner, op.cit., p.35: 'goats, cattle, and birds cry [unto him]' (hymn as before).

16. Abyd Mar II, 54, 5:

tr. Korostovtsev: 'parmi les dieux comme (parmi) les hommes, les quadrupèdes, les oiseaux et ceux qui habitent les eaux également'.

17. P. Berl 3038, 8, 2 (hymn to Ptah):

'mankind, gods and all hwt'.

18. BM 797 (Shabaka Stone):

tr. Erman, p.937: 'alle Götter, alle Menschen, alle Tiere und alle Würmer, die da leben, indem er denkt(?) und indem er alles befehlt, was er will'.

19. Anonshymn Kairo 1, 1-2, 1 (P. Boul XVII-O. DelM 1224):

In order to understand properly the various terms found in these texts it is essential to study them in other contexts. Most are very common. (A few more terms with apparently similar significance are found in Ptolemaic texts but will not be discussed here for reasons given in the Introduction).

The term Cwt (Wb I, 170,7 - 171,1: vierfüßige Tiere... Kleinvieh...Wild...Ein bestimmtes Tier), written ỉwt (Wb I,29,15-16: Vieh...Wild) after the Amarna period, is attested with a great variety of determinatives. These may show both domesticated livestock - goats, sheep, donkeys, cattle, or a combination of these - and, especially in the phrase 'Cwt of the desert' (Cb (n) h3t), wild animals - gazelle, oryx and ibex. If only a single determinative appears this
tends to be the goat or gazelle according to context, though 3awt only ever shows the 'cow's skin' as a determinative. Two seldom-attested sub-groups of cwt (cwt ndst and cwt hdt) show goat and sheep determinatives (if any) respectively. The phrase tp-n-cwt/3awt (Wb V, 267, 4: das beste an Tieren) is used of goats (but also contrasted with them) and with a cattle determinative as well as in the phrase tp-n-iwt-hast and elsewhere, and would seem, therefore, to be little different in meaning from cwt/3awt alone. The phrase is the precursor of Coptic TNḤ, applied to the ox, ass, camel, sheep and goat as distinct from wild animals, ΘΠΙΟΝ.

'Tawt (nbt/ābn) may be used as a broad category followed by the names of specific animals or may be used (eg in the phrase cwt ābn) to summarize a list of animals. Tawt are described as 'going on all fours'; cwt is applied to mammals other than livestock, and even to birds. cwt are mentioned in the fields where they could be a nuisance and kept in byres. They were tended by īmy-cwt, fed and watered, branded and brought in from the fields. They appear to have been a prized possession. The cwt is contrasted with various types of animals, notably cattle and goats, and is mentioned once in parallel with a lion, and once with a goose.

Cwt is contrasted with mankind or with the gods themselves. Man is sometimes referred to as the 'cwt of god' (cwt ntr) or the 'noble cwt' (cwt ēpest); cwt ntr is also used of sacred animals. (Mnmnt too appear among 'the god's possessions'). Cwt are also mentioned in connection with Seth and Re.

The mnmnt (Wb II, 81, 17-23: die Herde, das Herdenvieh) which occurs with cwt in the classificatory lists usually has a cattle determinative and may be contrasted with cwt in other contexts as well. It occasionally shows a similar variety of determinatives to cwt, and mnmnt may be used to mean 'herd' in much the same way as ldr (Wb I, 154, 12-14: Herde (von Vieh u. Geflügel)); herds (ldr, mnmnt, tšt, hnmw and hvk) of cwt are also attested. cwt also occurs paired with other terms from the classificatory lists (ḥrd, ḫrw, mḥvt) and may be contrasted with plant foodstuffs.

The word cwt itself may be derived from the term for the (shepherd's) crook, which appears in early writings of the word.
It may be deduced from the above, therefore, that \textit{Cw awt}, when contrasted with 'the gods' or 'mankind', has the force of 'animal' in its broadest sense. The translation 'animal' is further supported by a single text in which birds are clearly covered by the term \textit{Cw}. This meaning has been proposed for \textit{tp-n-\underline{Cw}} by Nims\textsuperscript{62} and it has been shown above that this phrase was largely synonymous with \textit{Cw/\underline{Cw}} alone. In other contexts \textit{Cw/\underline{Cw}} names a group of animals parallel to fish, birds and reptiles, and as such seems to designate the class of mammals. \textit{Cw/\underline{Cw}} is sometimes contrasted with cattle, and may then represent mammals (especially livestock) excluding cattle (\textit{mmmnt})\textsuperscript{63}; these classes are also separated in certain Old Testament texts.\textsuperscript{64} When contrasted with goats, pigs etc., the meaning of \textit{Cw} may be 'mammal (excluding those named)'.

Of all animals \textit{Cw/\underline{Cw}} seems to have been most closely associated with the goat (less often the sheep), and it may be that this is to be understood when \textit{Cw/\underline{Cw}} appears to refer to a single animal (as in the medical texts).\textsuperscript{65} The broad meaning of \textit{Cw} could also be restricted as required by the choice of determinatives.

\textsf{(Tp-n-)}\textit{Cw/\underline{Cw}} may, therefore, be said to occupy the 'unique beginner' and mammal 'life-form' categories in ancient Egyptian, and is probably best translated 'beast', or, where appropriate, as Gardiner has suggested, 'any (other) kind of animal'.\textsuperscript{66}

A word with apparently similar meaning is \textit{m3} (not in \textit{Wb}), to be separated from \textit{m\textsuperscript{3}l} 'lion', as some texts quote both together.\textsuperscript{67} Like \textit{Cw} it is contrasted with mankind,\textsuperscript{68} and other groups of animals.\textsuperscript{69} (The meaning of the word is made explicit in an Old Kingdom and a Middle Kingdom text;\textsuperscript{70} in the former it describes a number of desert creatures, in the latter a group of horned animals.) This is also true of \textit{mmmnt}, already mentioned above,\textsuperscript{71} though the term is most often attested alone.\textsuperscript{72}

\textit{Mnmn} appears as a verb of motion (\textit{Wb} II, 80, last entry - 81, 15) which may lie behind the meaning of \textit{mmmnt} used as a collective noun, especially of cattle; Paton, therefore, suggested a literal translation of \textit{mmmnt} as 'droves'.\textsuperscript{73} \textit{Mnmn} is never applied to wild animals, only domesticates, and \textit{mmmnt} are mentioned several times 'in the fields' (\textit{shjt}).\textsuperscript{74} Its determinative indicates that its most important application was to cattle though it could be contrasted with these.\textsuperscript{75} In one text \textit{mmmnt} appears as a variant of \textit{wmnt} 'provisions'
which may be indicative of the significance of cattle as a source of food. 76 **Mnmnt** were prized as booty 77 and were kept in temples to provide sacrifices. 78 **Mnmnt** were looked after by herdsmen (m-r), 79 the king was called 'leader' (taw) of the **Mnmnt** as a metaphor for his care of his people. 80

In the classificatory lists given above, birds are often denoted by the phrase **pavt nbt hnt nbt**, 'all those which fly and alight': 81 (see Wb I, 494,1-12: fliegen, auffliegen, fortfliegen; Wb III, 287,3-288,3: niederschweben). This description also occurs in other texts. 82 **Pavt** (Wb I,494,13-14: 'das was fliegt' als Bez. der Vögel) appears alone in two other instances, in an offering list and in one of the medical texts. 83 The similar form **paww** (Wb I, 494,15-17: 'die Fliegenden' als Bez. der Vögel) is generally confined to Ptolemaic texts, though it does appear in a Dynasty 20 classificatory list (see above). **Hnt** (Wb III, 288,4-6: das Geflügel) also occurs independently. 84

Coptic did not retain these words, using instead 2αλντ, also derived from a word meaning 'to fly'. 85 This term appears to cover flying insects as well as birds - in one text a grasshopper is described as a 2αλντ which can jump. 86 It is likely that flying insects were comprised within the earlier phrase **pavt hnt**, given that the names of several such insects are given a bird determinative. It may also be that bats were included in the bird class - a representation at Beni Hasan shows two bats together with a number of birds, and another writing of the name of one of the bats depicted has a bird determinative (see Ch.3: Bats).

Another, fairly rare, term apparently applied to all birds also alludes to their powers of flight - ḫrw-pṭ (Wb I, 104, 4: die Vögel), lit. 'those on the sky'. 87 An otherwise unattested word **smlw** occurs as a variant of this. 88 The word **hrīw**, lit. 'those above', has also been taken as a general term for birds. 89

**Jpd** (Wb I, 9, 5-8: allgemein Vogel), attested from all periods of Egyptian history, appears to have a general meaning 'bird' though it is seldom attested in the classificatory lists. Writings **jpdwt**, and later **jnt**, are also known. 90 Like **fw** it could show a number of different determining signs, 91 usually a type of duck; 92 Coptic ʿwṯ, derived from this word, designates only the goose. 93 It often occurs in parallel with other types of animals, commonly 'fish' (rwm), 94 but also cattle, goats, donkeys, mules(?), pigs, lions(? ) and other goods. 95 Phrases
such as \(3pd\) \(nb\) or \(3pd\) \(\#bn\) (cf. \(\#tw\) above), sometimes at the end of lists of bird names\(^{96}\) likewise indicate the role of \(3pd\) as denoting a 'life form'. In one text 'waterbirds' (\(3pd\) \& \(nw\)), comprising cranes, geese and ducks, are separated from other types of birds (eg pigeons) chosen as offerings.\(^{97}\) \(3pd\) \& \(mr\) 'channel bird; comprising at least two types of duck, is also known.\(^{98}\)

Waterbirds were elsewhere given the names \(\#nm\) (\(Wb\), III, 381, 14; als Bez. für Sümpfvögel)\(^{99}\) or \(\#kh\) (\(Wb\) V, 30, 8; die Wasservögel)\(^{100}\) which again could show a variety of determinatives. The phrase \(3\#dw\) \(ntv\) \& \(m\) \(\#kh\)\(^{101}\) (cf. \(3\#dw\) \& \(\#s\))\(^{102}\) may designate the same birds, as perhaps does \(\#psyw\) from the \(\#kh\).\(^{103}\) 'Foreign birds' (\(3\#dw\) \& \(\#dr\)) are recorded as coming to the Delta to nest, in a passage which describes the overturning of the natural order of things.\(^{104}\) The blood (\(\#n\)) of \(3pd\) is mentioned in a magical charm\(^{105}\) (note that many parts of birds - written without phonetic complements - occur in the medical texts, and are not discussed here).

In the Pyramid Texts \(3\#dw\) occurs in parallel with other words which seem to designate individual species of bird - \(bik\), \(\#nm\) and \(\#dr\)\(^{106}\) - though in one case \(bik\) has multiple determinatives also. In one Text \(3pd\) is given in parallel with \(\#dr\), the scarab beetle;\(^{107}\) and this parallelism is also found in other contexts.\(^{108}\) Elsewhere in the Pyramid Texts it is specifically a 'green \(3pd\)' (\(3pd\) \& \(\#dr\)) which appears with the Nile Goose \(\#nm\),\(^{109}\) which suggests that \(3pd\) denoted a type of bird. In the New Kingdom stools with legs ending in ducks' heads were described as having legs 'as the faces of \(3\#dw\)'\(^{110}\)

Faulkner\(^{111}\) has suggested, therefore, that \(3\#dw\) originally meant 'duck', perhaps including other species of small waterfowl; the term was then later extended to embrace all birds 'possibly because in the undrained marshes of early Egypt ducks probably greatly outnumbered the other species of birds'. The latter was very probably true - the abundance of birds and fish in the papyrus marshes was doubtless the reason for the overtones of everlasting potency and rebirth in the 'fishing and fowling' tomb scenes.\(^{112}\) It may be that, as with the goat and \(\#tw\), some species of bird (especially ducks) were considered typical of \(3pd\), though the word usually had general significance. This would explain the appearance of various parts of \(3pd\) in the medical texts - either the type of bird to be used was not important, or \(3pd\) already suggested some particular bird. Something similar would probably have been suggested by the phrase \(\#n\) \(3pd\)\(^{113}\), precursor of
After the Pyramid Texts, birds seldom appear other than as offerings though some literary references occur. Birds were held or tied at the wings (dnh, lit. 'winged') to prevent them from flying and this was used as a metaphor of helplessness. The feather (9wt) of a bird was also used in this way to denote something easily overcome. 3pd is also attested as a verb, meaning apparently 'flutter (like a bird)', or similar (Wb I, 9,12-14: herbeileilen). The young of 3pdw were called smsw; it was said in one text that in times of disorder birds would no longer lay eggs in their nests. In another text birds are recorded in trees (m ht). In another a spell is to be recited over 'seven birds'.

The word which appears to designate 'fish' in the classificatory lists, gm (Wb II, 416,12-17: der Fisch), has already been mentioned in connection with 3pd. Like 3pd, and 9wt and mmmnt, the word could show several determinatives; this, together with the use of the word almost exclusively in the plural, 'beweisen die allgemeinere Bedeutung "Fische als Gesamtheit" ohne Spezifizierung der Art'.

Although most commonly paired with 3pd, rmw occurs in parallel with the names of other animal classes and other (specific) types of fish. rmw 3bn at the end of lists of fish, giving the totals of the numbers of fish mentioned, indicates that rmw was a broad term embracing various individual species.

Unsurprisingly, there are many references to fish in the water, in the river, or a lake, or in the sea; defeated enemies were compared to fish stranded on land. Fish in this condition were eaten by jackals; in the normal course of events they were the prey of crocodiles. There are numerous mentions of the catching and eating of fish - even by Rê - though the eating of fish could be taboo. One text records the feeding of fish to the sacred crocodile of Sobek. rmw are attested frequently in the ostraca (or similar records) though writings often show only the determinative and plural strokes. Various parts of fish - scales, fins (lit. 'hands'), fat and bones - are noted; whole or 'split' fish, dried or fresh, are attested as are 'fat' fish and wdh fish. The eggs of fish had a proverbially bad odour. Fish also seem to have been associated with the stars; one text says that stars began their existence as fish, formed from the gods' tears.
Other animals than fish may have been included in the category rmw. The crocodile god Sobek is designated 'the great fish' (rmw wr) and the words for turtle (ätw) and tadpole (ḥfn) occasionally have fish determinatives. The mention of rmw as dangerous animals also indicates that the term might include other creatures.

Various less common terms designating fish, and perhaps other creatures as well, can be isolated. Ḥmyt (Wb II, 127,10-12: Kollektivum: die Fische), lit. 'swimmer', can show multiple determinatives, and in one case appears to be a general term comprising at least one other species. Like rmw, Ḥmyt are recorded as being caught and eaten. The phrase 'nb Ḥmyt' (cf nb rmw) appears on an ostracon. Ḥmyt-mw (Wb II, 50, 16: die Wassertiere), lit. 'those in the water', Ḥmyt-bch (not in Wb), lit. 'those in the inundation', Ḥmyt-b(h (not in Wb), lit. 'floaters', Ḥmyt, Ḥmyt-bch and Ḥmyt reflect the watery habitat of this class of animals, while Ḥmyt and Ḥmyt-mw describe the appearance of fish. Ḥmyt and Ḥmyt-mw are demonstrably parallel to other class names and should therefore be considered as life-form labels.

Three further terms for fish are confined to Ptolemaic texts. These are Ḥnn (Berlin Zettel), Ḥww (Wb III, 247, 9: die Fische) and ɾq (Wb V, 180, 12: Fische). The first two are in classificatory lists of the type mentioned above and would, therefore, seem to designate the class 'fish'.

The final terms in the classificatory lists are generally ddft (Wb V, 663, 6-634, 2: Wurm, Gewurm...Schlange) and Ḥfsw (Wb III, 72, 14-20: Schlange), fem. Ḥfst (Wb III, 73, 1-5). They are the least frequently mentioned class in the lists, and ddft are elsewhere recorded with insects as the least significant of creatures.

Both terms consistently show snakes as determinatives though ddft also occasionally has the cow's-skin. The king's uraeus is once described as a ddft, as is a boat with snakes at the prow and stern, so the connection of ddft and snakes was obviously close. In one of the Book of the Dead lists given above the terms Ḥfst and ddft are used together, so there was clearly some difference in their
meaning. This may have been slight, given the description of the uraeus and boat above and the fact that a prescription from P. Ebers against hft in the body ends with the claim to dispel ddft in the body. Both were used as terms for ground-dwelling creatures inhabiting holes; hft might also be found in the water, ddft in the grain and ddft in the valleys of the desert. Ddft occurs in magical texts and hft on an ostracon. Hf was also a toponym.

The bites of hf and ddft were recorded and spells for 'shutting the mouths' of these creatures are known. Hf were noted in the medical texts as a cause of illness and to be eradicated, and a magical spell records ddft as a cause of illness also. In one diagnosis of illness a patient's flesh is said to be like that of a ddft, in another his breath like the venom of a hf. Ddft appear in another text in connection with the toes (s3hw), but the context is too broken to allow a proper interpretation. Elsewhere in the medical texts the fat (mrht) of hf is used in prescriptions, the skin(? ) of a snake rubbed on the head cured pain, and in other texts too hf evidently denotes an actual creature. Killing a snake (hf) in a dream was considered a good omen. Magical texts calling for the protection of the limbs from hf and ddft might refer to both real snakes and to bodily parasites such as may be meant by the ddft of the medical prescriptions. Mythological snakes were also called hf.

In a number of cases, therefore, both hf/hf and ddft seem to be translatable by 'snake' alone, though some other meaning is probably to be found for the hf as inducers of disease and ddft (for ddft) as consumers of corpses. There is a small degree of evidence to indicate that other creatures were included in this class. A lizard appears as the determinative of hf in an Old Kingdom inscription and the designation (Wb V, 634, 3: als allgemeine Bez. für Reptilen) is applied to lizards depicted on a Late Period sarcophagus. 'Toes of ' are mentioned in Ebers. A crocodile deity is called 'foremost snake' (hf py). At Edfu also the scorpion Selket is described as 'the noble ddft', and in one New Kingdom text 'scorpion' has a snake as determinative. At Esna a frog (written as the name of the deity Heket) also has a snake determinative.

Certain other terms appear to designate similar creatures. Two highly descriptive terms, which may apply to snakes generally rather than to specific types, are sdrw 'those which lie' (Wb IV, 392, 10: die
Schlangen) and hrw-ht.en 'those on their bellies' (Wb III, 135, 3: Schlange, Wurm...). Both are uncommon, and a more precise translation cannot be offered.

The word x (Wb II, 393, 7-10: Schlange; hrw: Wb II, 438, 12: Art Schlange, is probably a different word) appears a number of times in oracular amuletlic decrees in parallel with terms for sundry dangerous beasts, notably msh, hfs, wht, ddft and hrr (Wb III, 150, 2-3: eine Schlange in der Unterwelt... alles Gewürm, cf Wb III, 150, 1: Art Eingeweide würgen ('im Bauch') als Krankheitserreger). Certain of these texts give writings of x without snake determinative, others show no determinative at all. In the latter case the word may easily be read 'mouth' (Wb II, 389, 9: der Mund) and this was indeed the translation used by Edwards in his publication of the decrees. Meeks also believed this to be the literal meaning of x [snake]. Elsewhere snakes (hfs) are described as 'biting with their mouths and pricking with their tails (sic!) and one amuletlic decree has the similar phrase 'the mouth of every ddft', both reminiscent of the 'every biting x' of other decrees. Nevertheless x are also attested as 'biting with their mouths and pricking with their tails', and, like hfs and ddft, x appear in connection with 'their holes'. This indicates that the words had similar meanings.

R and ddft appear in parallel in a text concerned with the decay of the corpse; in another, hfs nb, hfs nb and x appear as variantes in a spell to protect the limbs against these creatures. R attacking a corpse is also mentioned on a Late Period sarcophagus and in the Book of the Dead. Spells against the x are also found in papyri from Turin and in the Metternich Stela.

Another word to be considered here is hrr, attested in a small number of texts. In the medical texts a prescription against hrr is found among those against hft. The writing hrr appears when contrasted with other 'life forms'. In one text the word appears in parallel with ddft. The word usually has a snake as determinative, though one Ptolemaic text adds a scorpion (See also hrr in Ch. 20: Insects).

Hfs probably meant originally 'creeping thing' (unless the verb hfs meant 'to move like a snake' and was derived from the name of the animal). Gardiner suggested that ddft meant literally that 'which says fff'. This seems to be the very opposite of their eventual
meanings in Coptic - ဇိ 'snake' and ဗု 'reptile'. Edwards' renderings of ḫḥ₃w, ḫḏt and ḫ in the amuletic decrees as 'serpent', 'snake' and 'ophidian', with ḫrr as 'reptile', seem to represent an attempt to distinguish the terms in his English translations rather than to give real equivalents to the Egyptian words. Of the four terms ḫ is the only one which does not appear in the classification lists naming (apparently) one of the classes of the animal kingdom. In the amuletic decrees ḫḏt, ḫrr and ḫ are followed by nb whereas ḫḥ₃w is not, like ṣḥ and ḫḏt. This seems to indicate some sort of distinction between ḫḥ₃w/ṣḥ/ḫḏt and ḫḏt/ḥrr/ifax - 'the snake', 'the crocodile', 'the scorpion' as opposed to 'all sorts of' (nb) '[other noisome creeping creatures]'. In some of the decrees ḫ seems to have replaced ḫḏt and ḫrr, which suggests that there was some degree of similarity between the terms. Evidence from later texts suggests that ḫ was a broad term which embraced various poisonous types of snake and the same might, therefore, be concluded of ḫḏt and ḫ(rr). Indeed, Meeks has suggested that ḫrrt was a term for 'small animals', embracing snakes, scorpions and insects.

The use of a snake to determine these general terms would indicate that snakes were the most important element of the class and explain the appearance of the specific ḫḥ₃w/ḥḏt in the classificatory lists. The snake determinative was considered appropriate for creatures which are evidently not snakes, nor even reptiles, such as the insect larvae which destroy paper or wood, so it is clear that the Egyptians' perception of a class separate from mammals, fish and birds was fairly inclusive. This feature is found in other languages. Brown surveyed the 'life form' categories of 112 languages and found 'snake' to be the most inclusive of all, comprising 'featherless, furless, elongated creatures adapted to crawling, usually lacking appendages. (This life form in its greatest extension includes worms, snakes, lizards and, occasionally, other elongated creatures such as reptilelike insects).

Ancient Egyptian is unusual in having no separate term for the 'wug' ('worm' + 'bug') class which is identifiable from many other languages, though terms for individual insects are known. The need for such a term may have been avoided by the apparent inclusion of winged insects in a class of flying things and various 'creepy-crawlies' in a group of creeping things.

The groupings of the classification lists are echoed in a title from the Middle Kingdom: 'overseer of horn, hoof, feather and
scale'. This gives a clear insight into the divisions perceived by the Ancient Egyptians within the animal kingdom, which might be expressed as follows:

(a) things which walk (mammals, not including mankind and sometimes excluding cattle, representative of the whole animal kingdom - compare the vernacular use of English 'animal')
(b) things which fly (birds; also bats and certain insects)
(c) things which swim (fish; also crocodiles, turtles, hippos)
(d) things which crawl (snakes; also scorpions, lizards).

Ancient Egyptian provides useful comparative material to the folk classification of other cultures, though it does not entirely follow the common pattern. It has a unique beginner, 'awt, and three life form labels, 'awt, ḫ3rw (more specifically 'sd 'bird'), ḫwy (more specifically ḫrw 'fish') and ddft (more specifically ḫ3w/ḥ3t 'snake'). Other terms, some obviously descriptive (such as ḫmyw-mw 'those things in the water'), are also used to name these life-forms. This has not been noted as a feature of modern primitive languages. Ancient Egyptian is also unusual in encoding the 'mammal' group ('awt) before the 'wug' group and it would be interesting to know from future studies whether this was characteristic of ancient man.
PART 1: MAMMALS
Chapter 2 : Antelopes and Similar Animals

The most commonly represented of the non-bovine ruminants were the gazelle, oryx and ibex. They were depicted wild or semi-wild in hunting scenes and captured or domesticated in various offering scenes. All three occur as determinatives of cwt.hist, referring to desert fauna, though the gazelle occurs most frequently in this context (see cwt).

Of the ancient terms for these animals only that for the gazelle, qhs and variants¹ (Wb V, 191, 1-9: die Gazelle), survived into Coptic (620ε, 602ε , 62εΕ).² The word is usually taken to denote the Dorcas Gazelle (Gazella dorcas L),³ a small species occurring today in semi-desert plains from Senegal to Morocco and through Northern Africa and Iran to India.⁴ Unlike many other gazelle species it does not show a distinct flank band, and this is true of the gazelles in ancient Egyptian representations where colouring survives.⁵ Both the male and female carry horns.

Another animal which has been considered a gazelle is that named psi² (Wb V, 206, 2: Art Antilope) in the tombs of Ti and Idut,⁶ identified by Keimer as G.isabella Gray (now known as G.dorcas isabella).⁷ This species was also identified by Lortet and Gaillard from mummified remains.⁸ Another writing, gsi, was noted by Keiner from the tomb of Ndti³ at Giza.⁹ In the tomb of Ti the gsi is distinguished from the qhs by having its horns shown from the front rather than in profile as the qhs is usually drawn, though unnamed representations should not be divided into species on these grounds alone.¹⁰

Mswd appears in one representation over a man carrying two gazelles and three hedgehogs in a box suspended from a pole over his shoulder. The term refers to the carrying pole, however, and not to these or any other animals as has been suggested.¹¹

A gazelle-like species, the gerenuk (Litocranius walleri Brooke), has also been identified from ancient Egypt, though not from historic times.¹²

The gazelle (qhs) is shown frequently in hunting scenes, sometimes named,¹³ and is often named in depictions or lists of offerings¹⁴ where it is usually accompanied by other antelopes. Like the oryx and ibex and other highly prized animals gazelles were imported from Nubia.¹⁵ As
with many animals its parts are mentioned in medical preparations. Gazelles also appeared in literary texts.

The feminine form, qat, occurs as a toponym and as the name of a type of loaf (cf ih etc; see Ch.4 : Cattle).

The species of oryx most likely to have occurred in ancient Egypt are the Scimitar(-horned) or North African Oryx (Oryx dammah) (Cretschmar), which was once common across north Africa but is now restricted to a small area in the southern Sahara, and the White or Arabian Oryx (O. leucoryx Pallas), which once inhabited the Sinai Peninsula, Jordan, Israel, Arabia, Iraq and Syria and is now extinct in the wild. These oryxes have recently been considered subspecies of O. gazella. It has also been suggested that the Beisa oryx (O. (g.) beisa Rüppell) was known to the ancient Egyptians; this subspecies occurs on the Red Sea coast of Ethiopia and previously also inhabited Sudan and Eritrea.

Although O. leucoryx is most commonly mentioned in Egyptological literature the species recorded by Flower from Egypt is O. dammah, though it became extinct there in the mid 19th century. Ancient representations of oryxes differ somewhat, particularly in the curvature of the horns (straight horns appear on O. leucoryx and O. beisa, but sweeping curved horns on O. dammah). Colouring (where it is preserved) is usually consistent, showing a white coat with brown markings on the face, flank, thighs, chest and sometimes back of the oryx, which accords well with descriptions of O. dammah.

The Egyptian name for the oryx appears in its fullest form as mḥd (Wb II, 11, 4-9: die weiße Säbelantilope (oryx leucoryx)) or rn (n) mḥd but also occurs as mā (Wb II, 11, 3: Antilope), ṭn mā (Wb III, 210, 10: als Abkürzung für mā-hd 'die weiße Säbelantilope'), ḫā or ṭn ḫā and in an abbreviated form, mā (Wb II, 121, 11-12: die Säbelantilope), in Ptolemaic texts (for the abbreviation of names in a similar context cf ṣr, ṭrp; see Ch.15 : Waterbirds). Certain New Kingdom writings showing the cow's skin determinative (Sign List F27) after the mā led Loret to assume for mā a general meaning: 'bête désertique'; mḥd was thus 'bête blanche du désert' (cf mā; see Ch.1: Classification).
As may be seen from some of the examples quoted in the notes above, and elsewhere, the oryx appears in various scenes or lists from tombs. It was sometimes shown being fattened (ḏwš) and was perhaps tamed. It also occurs as a sacrificial beast and associated with Seth and Horus.

The Coptic term for antelope (as distinct from gazelle) is the descendant of Egyptian ëšw (Wb IV, 543, 5-6: die Kuhantilope), with the feminine form ëšwt. From certain excellent named representations showing the characteristically long face of this antelope it may be identified as a hartebeest (Alcelaphus buselaphus Pallas). The ḫw hieroglyph (Gardiner, Sign List, E9: 'newborn bubalis or hartebeest (Alcelaphus buselaphus)') was identified as a young hartebeest by Keimer (he suggested both A. buselaphus and A. major) from representations of the young animals in various tombs and from a detailed hieroglyph from the Hatshepsut obelisk at Karnak.

Another antelope, named dbnw (Wb V, 568, 2: Art Antilope) by the Egyptians, was considered by Vandier and Meeks to be a hartebeest also, but from the sole complete drawing of this animal (in the tomb of Mereruka), which lacks the hartebeest's characteristic head (and has longer horns), it is clear that it was not. Dbnw was identified by Gaillard as another species altogether, the 'addax à nez tacheté' (Addax, Addax nasomaculatus Blainville). He believed this to be the same species as the antelope called nwdw (Wb II, 226, 15-16: die Mendesantilope (addax nasomaculatus)), because of the similarity of the two in the scene in the tomb of Mereruka to two nwdw in the tomb of Ti. In Mereruka the dbnw, brown, with horns drawn from the front precedes the nwdw, grey like the nḥ and mḥḥ, with horns drawn from the side. In Ti a nwdw (horns drawn from the front) precedes a nwdt (horns in side view). Gaillard believed the terms were chosen according to the animals' colour and that the Egyptians distinguished between addaxes in winter and in summer pelage - the winter coat of the addax is grey-brown while in summer its coat becomes sandy or almost white. This is indicated in representations at Maidûm where in one tomb two addaxes are coloured differently (sandy brown and greenish); they are, however, given the same name (nwdw). It should be noted that some animals in the Mereruka scene were misnamed, and the name dbnw may simply have been placed over the wrong animal - it is unfortunate that the only other known representation of a dbnw is largely lost and cannot provide corroborative material.
While the *nwdw* appears mostly in offering scenes (it is shown only once in the desert) the *asıw* is found, in addition to these contexts, in the animal list of the Ramessum Onomasticon, in the medical texts, as an animal not born in winter and as a metaphor for wasteful idleness. The toponym read *ḥstw* by Sethe was considered by Keimer to be *asıw* because of the shape of the horns on the animal determinative.

Two large wild ruminants which belong to the goat and sheep families (Caprinae) are included here because they were represented by the Egyptians together with antelopes and there is no evidence to indicate that they were considered to fall into a separate category. These are the Nubian Ibex (*Capra ibex nubiana* Cuvier) and the Barbary Sheep or Aoudad (*Capra lervia ornata* Audouin). The Egyptian names for these animals were *ḫb* and *ḥbw* respectively and they were included (and sometimes named) in hunting scenes and in scenes and lists of offerings. Meeks also recorded a word, *ḥḥy* as 'un nom de l'ibex?'.

From the number of times each species was depicted or mentioned the ibex would seem to have been the more common, or at least more frequently encountered, and its parts were frequently used in the medical texts. Its sweeping annulated horns may have been associated with the sign or ; thus classical authors' reports that the Egyptians used the deer (*λαφος*) to signify the year could be explained as a case of mistaken identity.

The presence of these mountain animals among antelopes of the desert plains such as the gazelle, oryx and addax brings into question the accuracy of Egyptian representations. This subject was discussed at length by Keimer who was of the opinion that the ancient craftsmen intentionally (from artistic convention) depicted together animals which did not belong in the same habitat. In Africa and the Near East today the Barbary Sheep and ibex overlap in a fairly extensive area bounded by the Nile and the Red Sea, the ibex being the more widely spread. The edge of the area covered in Egypt by the ibex seems to correspond broadly to the 200m contour. Given that this is not far distant, on average, from the Nile and that the Egyptians explored the Eastern Desert thoroughly in search of mineral deposits in connection with routes to the Red Sea they would no doubt have been familiar with the fauna of the Wadis (cf the inscription from the Wadi Hammamat.)
mentioning a gazelle - see ghst above). They must either have depicted
together all animals of the hmt, regardless of their precise habitat,
or saw the hill-species sufficiently frequently on the flatter desert
to regard them all as animals of 'the red land'. (See also on deer,
below.)

'Im3t (Wb I, 79, 1-2) was understood by Wb as 'Weibchen des
Steinbocks',82 ie the female equivalent of nis for which no feminine
form with it is known. Two tombs are quoted where both the Im3t and nis-
w are shown83 and their gross morphology is remarkably similar.
However, the phrase hmt Im3t,84 'female Im3t', which occurs in the
tomb of Ti, would indicate that Im3t was a species name in its own
right, with the female specifically designated here (again the animal
shown is ibex-like).85 In the same scene appears the similarly named
hmt nwdw, and this construction (hmt + animal name) to designate the
female of the species is by no means uncommon.86 The example of Im3t
from Dendera with triple determinative87 should not, therefore, be
taken as 'eine allgemeinere Verwendung für die Weibchen anderer
Wildarten' (Wb)88 but as denoting a single species; the determinatives
are not of three different animals, but merely successively more
cursive forms of the same hieroglyph.

It is possible that this animal was a wild goat, Capra aegagrus
Erxleben.89 The males of this species have horns very similar to those
of the ibex. The horns of the females of both wild goat and ibex are
smaller than those of the males - note the difference in size between
the horns of the Im3t and nis in Ti.90

An untranslated animal name which has been considered to apply to
the female hartebeest is hbn (Wb II, 487, 6: Art Kuhantilope) attested
at Beni Hasan;91 it follows a pair of ššsw and is very similar to
these. Loret92 concluded, 'Il est donc certain que ce mot... est le nom
spécial de la femelle du Bubale' and compared mši 'lion' and ru-jbw
'lionne', and the terms for bull and cow, boar and sow (sic).93 The
terms hbn and ššsw also appear in a fragment of papyrus preserving
part of a list of offerings.94 It is unlikely that hbn in a list of
this type names a female; the only female animal regularly mentioned in
offering lists is the cow, and other female animals as offerings are
restricted to Old Kingdom tomb scenes. Hbn would appear, therefore, to
designate an additional type of antelope similar to the hartebeest; the
Tiang or Korrigum (both subspecies of Damaliscus lunatus Burchell)
appear to be possibilities.95
A number of representations of deer occur in ancient Egypt, though they were by no means abundant in the tomb reliefs. The greater proportion of the representations are on pre-Middle Kingdom objects; from that time onwards their numbers appear to have been on the decline. Evidence for the disappearance of deer from Egypt is supported by a change in the word denoting this animal. The ancient term, hnn (Wb II, 495, 19: der Damhirsch), is found up until the New Kingdom, appearing in certain reliefs and in a number of medical texts; the latest reference is in a list of tribute from Syria. This term was replaced subsequently by a semitic word (Ir) an early writing of which may occur in a Dynasty 19 text.

It has been considered that the lack of skill with which the antlers of deer were portrayed indicated the Egyptians' unfamiliarity with the animal, and that deer were, therefore, always rare in Egypt. In general the antlers shown are not palmated (there are a few exceptions) which has led to the identification of the ancient Egyptian deer with the types of Red deer which occur today in North Africa and Arabia. However, the Persian Fallow Deer (unlike the European type identified from one of the exceptional examples mentioned above) does not have antlers palmated solely at the upper end; palmation occurs rather near the base. Nevertheless, because of the absence of palmation in most Egyptian representations it has been considered that both the Persian Fallow deer, D. d. mesopotamica Brooke, and the Barbary Red Deer, Cervus elaphus barbarus Bennett (sometimes referred to as C. barbarus Gray), should be considered as translating hnn (and Ir).

It seems (failing the discovery of a post-Dynasty 18 example of hnn) that the deer may well have disappeared from Egypt in a relatively short time c.1300BC (max. c.1450-1250BC) when hnn disappeared from the language. Joleaud considered that they were lost from the wild even earlier than this, remaining only in parklands; these can no longer have been maintained after the Saite period, when representations of deer cease altogether.

The presence of deer in ancient Egypt is of particular interest in the reconstruction of African palaeoclimates, as today deer (Cervus elaphus barbarus) in Africa are confined to that part of coastal North Africa most closely related in climate and vegetation to Southern Europe. Joleaud found evidence that this species had at some time reached even Eastern Africa. He also believed that the fallow deer
occurred in prehistoric Africa, perhaps as far west as Tunisia where it may have been imported by the Phonecians. This deer is a native of the Mediterranean area and thus seems a likely prototype for the deer represented in ancient Egypt. Hilzheimer identified the Egyptians' deer (referring to the representation in the tomb of Montuirkhopeshaf) as *Dama schaeferi*, a species which he described from a specimen taken (possibly) from Tripoli. Joleaud considered that this example should be considered merely as a subspecies of the common fallow deer, and that it was this subspecies which was found in Egypt. Hilzheimer's binomen is today considered to be invalid; the only fallow deer types now recognised are *D. dama* L., the European Fallow Deer, and *D. d. mesopotamica* Brooke, the Persian Fallow Deer. The latter was until recently believed to be extinct; in the 1950's a small group was discovered north-west of the Persian Gulf near the Iranian border with Iraq. It is noteworthy that this is an area of steppe land rather than the woodland with which the European subspecies is associated. Thus the presence of fallow deer in ancient Egypt cannot be used as proof that there was considerable forest surviving there until historic times as has been suggested. Doubtless the deer would have been able to extend its territory into previously inhospitable steppe or semi-desert areas of northern Africa during a period of increased rainfall such as is held by geographers to have occurred c. 5000 BC. During the subsequent desertification in Egypt it would have survived only in the most favourable areas of the Nile Valley until environmental factors - or hunting - forced the population below its critical survival level. From such evidence as survives this seems to have been the likely fate of the deer in ancient Egypt. It should, however, be noted that fallow deer, possibly introduced into Egypt, may have continued to live in the Wadi Natrun until the 19th century.

Giraffes (*Giraffa camelopardalis* L) are known from a number of rock drawings and a few later Egyptian representations, in one of which the animal is named *mmv* (Wb II, 58, 14: die Giraffe). This term is known from only two other texts: the tribute list in the tale of the Shipwrecked Sailor, and the list of animals from the Ramesseum Onomasticon. A giraffe hieroglyph also appears in the Nauri Decree, and as the determinative of a word *mmw* in the Coffin Texts.

The word *sr* 'foretell' (Wb IV, 189, 15 - 190, 17: vorhersagen, verkünden) is written with giraffe determinative, the connection being
presumably that the long-necked giraffe can see in advance those things about to affect smaller beings. Wb had (before IV, 189, 15) an entry for er as an animal name (Wb IV, 189: das Tier, welches das Schriftzeichen darstellt, die Giraffe) but referred only to writings of er as a verb.134

The term sdnf (not in Wb), noted by Edel135 from the temple of Niuserre; appears over what remains of the hindquarters of a short-tailed animal in the process of giving birth. Edel suggested that this block was the continuation of another scene showing a number of named animals giving birth, in the top register of which is an ibex (or ibex-like animal), the hind parts of which are lost. However, if the base lines of the registers are made to correspond correctly, it can be seen that the ibex's back has an unexpected slope which indicates that the blocks probably do not fit together, and that sdnf cannot name the ibex.

Pkrh, also from the temple of Niuserre;136 might apply to an antelope-like creature too - all that remains of it is the lower part of one hind leg. It must have been small (c.20cm) as in these scenes the animals' names were generally written near the top of the register, and almost all of the next animal's name (gsfnw) is visible. (Pkrh therefore seems to extend the entire depth of the register.) Although the leg appears to have a hoof no antelope is this small, but the fragmentary nature of the representation makes it difficult to suggest any alternative.

Gardiner transcribed a term tfk13 from the Ramesseum Onomasticon, where the word appears between ib3w (ibex) and mm? (giraffe) in a list of mammals.137 He did not consider another reading possible, but perhaps the tā (Wb V, 231, 4) of various offering lists of Ptolemaic date at Edfu138 should be compared, as tā could be read from the traces on the Onomasticon.139 Both these contexts would seem to indicate a large ruminant. It is interesting to note here an unnamed antelope in an Old Kingdom relief, identified by Keimer140 as the Roan/Horse antelope (Hippotragus equinus Desmarest), which today inhabits thinly treed grasslands from the Gambia to Somalia and from central to south Africa. It may also have been known in the Middle Kingdom,141 and should, therefore, be considered as a possibility in the translation of tā. The Kudu (Tragelaphus sp) has also been mentioned in Egyptological literature,142 and may be another possible candidate.
Chapter 3: Bats

Only four drawings of bats are known from ancient Egypt; three of these are from the tomb of Bakt III at Beni Hasan\(^1\) and the fourth is on an ostracon from Deir el-Medina.\(^2\) Two of the Beni Hasan examples are named; the larger is called sahmw (\(Wb\ IV,24,17:\) Art Fledermaus) the smaller dazy (\(Wb\ V,419,3:\) Art Fledermaus). Three-dimensional representations of bats are also rare. Vandier d'Abbadie\(^3\) mentioned a glazed pottery amulet of Dynasty 19, Ptolemaic bronzes of bats standing, with pierced ears and wings folded, in the manner of cat figures of the same date\(^5\), and a schist palette in the form of a stylized bat.\(^6\)

The Beni Hasan bats have been the subject of various attempts at identification. Allen\(^7\) suggested the Egyptian Fruit Bat\(^8\) (Rousettus aegyptiacus E. Geoffroy)\(^9\) and the Tomb Bat (Taphozous perforatus E. Geoffroy).\(^10\) It should be noted that Allen thought the bats with wings outstretched (ie those named as sahmw and dazy) were both R. aegyptiacus, despite the difference in size of their wing spans (51.0 and 26.5cm respectively) and that the unnamed example with wings folded was \(T.\) perforatus; it should also be noted that the nose to tail-tip measurements of the sahmw and bat with folded wings are almost identical, while that of the dazy is about half this length. Kingdon\(^11\) too noted the presence of \(R.\) aegyptiacus in Egyptian tomb paintings. Dawson\(^12\) remarked only that the bats depicted were of the family Emballonuridae (Sheath-tailed Bats, of which \(T.\) perforatus is a member). Houlihan and Goodman\(^13\) merely allocated the Beni Hasan bats to the order Pteropodida (Old World Fruit Bats), 'Owing to the rather poor condition of the representations today and because of the similarity between the many species of bat in present day Egypt'. Davies, in her publication of the bird and bat drawings at Beni Hasan,\(^14\) recorded only the bats' colours, 'drab brownish pink' (the sahmw) and 'darker browny red' (the dazy).

Two of the bats at Beni Hasan (the largest, sahmw, and the unnamed bat with folded wings) and the bat on the Deir el-Medina ostracon are all shown with tails free of any interfemoral membrane. (The same might have been true of the dazy, but the representation is damaged at this point.) This feature of the Deir el-Medina bat was commented upon by Houlihan and Goodman\(^15\) as being 'a characteristic feature of the rat-tailed bat' (Rhinopoma sp.). Although the tails of some present day bats are only half enclosed in this membrane very few have entirely
free tails as seems to be the case in the ancient Egyptian drawings.\textsuperscript{16} No leaf-nosed bats exhibit this characteristic\textsuperscript{17}, and indeed the Egyptian representations show bats with mouse-like heads. From Hoogstraal and Sanborn's\textsuperscript{18} descriptions of the various bats inhabiting Egypt today\textsuperscript{19} the following species therefore seem most likely as identifications of the ancient bats: \textit{Rousettus aegyptiacus}\textsuperscript{20}, \textit{Taphozous perforatus}\textsuperscript{21}, \textit{T. nudiventris}\textsuperscript{22}, \textit{Tadarida aegyptiaca}\textsuperscript{23}, \textit{T. teniotis ruppelli}\textsuperscript{24}, \textit{Rhinopoma hardwickei cystops}\textsuperscript{25}, and \textit{R. microphyllum}\textsuperscript{26}. Of these, the two most likely are those mentioned by Allen (above).

A term very similar to one of the bat names, \textit{dayt}, occurs as a bird name in the same scene\textsuperscript{27} at Beni Hasan - the bird to which it applies may be a Painted Snipe (\textit{Rostratula benghalensis} L).\textsuperscript{28} This spelling, but with a bird rather than a man with raised arms\textsuperscript{29} as determinative, also occurs in the medical texts, three times in preparations for eye complaints, two of which specifically involve the growth of hair in the eye. In all three cases the blood (\textit{snf}) of the \textit{dayt} is used.\textsuperscript{30} Another beast with a similarly spelled name, the \textit{drayt}, is used whole in a prescription in P.Ebers to treat a neck complaint.\textsuperscript{31}

Barns\textsuperscript{32} compared the use of bat's blood in a Coptic prescription to prevent the growth of eyelashes\textsuperscript{33} and concluded: 'We may, therefore, confidently assume that "bat" is meant here [in P. Ebers]'. Bat's blood causing blindness was mentioned in a demotic papyrus;\textsuperscript{34} in another Coptic text bat's urine was used to cure dim sight.\textsuperscript{35} Dawson\textsuperscript{36} noted also that the most frequent use of bats in medicine of all ages was as a depilatory agent. This recalls the Ebers examples and lends weight to Barns' argument. It does not seem impossible that the Egyptians might have chosen a bird as the determinative for the name of a bat; the same sign determines the names of various insects which appear to have been included in a class of 'flying beasts' (see Ch. 1: Classification and Ch.20: Insects).

Černý, Westendorf and Vycichl all believed that Coptic \textit{6in6aw} 'bat' could have been descended from any or all of Egyptian \textit{dayv}, \textit{dayt}, and \textit{drayt}.\textsuperscript{37} Vycichl noted two distinct Coptic forms, a southern type with \textit{N} (such as \textit{6in6aw}) and a northern type without (eg \textit{zalxoy}). The latter form only was represented in the ancient Egyptian language, though the former is apparent in demotic \textit{angla}.\textsuperscript{38}
No firm conclusion regarding the translation of *dgyt* can, therefore, be drawn from the available evidence. The word, which can be directly translated as 'the hidden one', is appropriate to both the skulking behaviour of the Painted Snipe and the nocturnal habits of most bats.
Zeuner stated that all domestic cattle were derived from the wild European Aurochs \textit{(Bos primigenius Bojanus)}, extinct since 1627, and described three variants as subspecies of this. These he called \textit{B. (B. lp. taurus} \textsc{L} (European humpless domestic cattle), \textit{B. (B. lp. longifrons} Owen (European short-horned cattle, sometimes given specific status as \textit{B. longifrons}) and finally \textit{B. (B. lp. indicus} \textsc{L} (the domestic zebu).\textsuperscript{2} (\textit{Bos brachyceros} Rütimeyer, he considered to be synonymous with and superseded by \textit{B.p.longifrons}, but Boston considered them 'quite different').\textsuperscript{3} The ancient Egyptian race found in Neolithic deposits in the Fayûm was described by Zeuner as 'a wild cattle, probably the southern form of \textit{B. primigenius}'.\textsuperscript{4} Boston considered the first domesticates to be examples of 'the original native African cattle' with a light-coloured short-horned type, \textit{B. brachyceros}, being imported from the Middle East during a population movement thence in the Neolithic period,\textsuperscript{5} a theory put forward by Dürst but left unconfirmed by Lortet and Gaillard after their samples failed to yield short-horned examples.\textsuperscript{6} They described the ancient cattle as \textit{B.africanus} (Brehm) 'qui vit encore aujourd'hui en troupeaux immenses dans les plaines du Haut-Nil'.\textsuperscript{7} although no longer found in Egypt itself (Schweinfurth).\textsuperscript{8} Dürst also described as \textit{B.taurus macrrocercos} a breed which survives in some modern central African breeds.\textsuperscript{9}

The most modern records include \textit{Bos primigenius} and \textit{B.indicus} within the species of domesticated European and African cattle, \textit{B.taurus} \textsc{L},\textsuperscript{10} and all the cattle terms discussed here will be considered to designate this species or the ancestors thereof.

The shape of the horns of the cattle represented by the Egyptians seems to have struck researchers forcibly, and some have interpreted names of cattle at least partly in terms of these horn shapes.\textsuperscript{11} Zeuner divided the native \textit{B. primigenius} of Egypt into four breeds on the basis of horn types - a breed with small horns, a breed with lyriform horns, one with 'double lyre' horns and a hornless variety.\textsuperscript{12} Andersson distinguished three types (long-horned, short-horned, hornless)\textsuperscript{13} as did Wilkinson (short-horned, long-horned and humped (zebu)).\textsuperscript{14} Hartmann further sub-divided long-horned cattle into those with lyriform, those with half-moon-shaped and 'mehr oder minder weit von einander abstehenden Hörnern'.\textsuperscript{15} Ghoneim,\textsuperscript{16} Darby\textsuperscript{17} and Kees\textsuperscript{18} all expressed similar views.
A closer examination of the representations and texts reveals this to be an inadequate approach. About eighty words were used by the ancient Egyptians to designate cattle - according to sex, age, colour and use, but apparently not horn shapes, though the precise import of some terms has remained elusive.

The most commonly occurring, and most general term for the cattle was $\text{h}h$ (Wb I, 119,15 - 120,4: das Rind (das gewöhnliche Wort)). It is possible that words written merely $\text{h}$ or $\text{k}$ are to be read $\text{h}h$ as these sometimes vary with full writings in the same text. Writings with cattle determinative (Sign List E1) but without phonetic complements will not be included here; such writings are extremely common, particularly in the ostraca or offering lists and should simply be understood as 'cow', 'bull' or 'cattle', as the context requires.

Wb (loc.cit) decided that $\text{h}$ could also be read $\text{n}$ or $\text{k}$ and in a limited number of cases this does appear to be true. Within cattle lists alone is perhaps to be read $\text{k}$, 'bull', since (sometimes $\text{h}$ 'various [cattle]') may appear at the end of such lists referring to all the cattle mentioned. In the Pyramid Texts $\text{h}h \text{pt}$ sometimes varies with $\text{k}$ (written only $\text{n}$); Wb read certain of these examples even so as $\text{h}h$ in an 'ideographische Schreibung', which would indicate that the words had similar import. $\text{k}$ and $\text{h}$ could also both be used in the same phrase where some contrast seems to have been intended. also appears in lists of livestock parallel to 'goats' (\'nh), 'sheep' (sr) and 'horses' (htr) which again indicates that this was a very general term.

The male $\text{h}$ is recorded in the stables (mdt), treading grain and eating grass (sm) - a proverbially uncontrolled activity. White and red $\text{h}$ are noted, see below for 'white' and 'red' as terms for types of cattle. $\text{h}$ were slaughtered and their hides (dhrl) and other parts were used. They are attested in lists of offerings and are recorded as being bought and sold and as the subject of court cases. They were looked after by overseers (imv-r).

$\text{h}$ had a feminine equivalent $\text{h}$ or $\text{k}$ (Wb I, 120, 5-6: die Kuh), sometimes specified as $\text{h}$ hmt. In other cases the gender of $\text{h}$ is indicated only by the definite article or possessive adjective. K3 'bull' and hmt 'cow' seem to have been used where the gender of the animal needed to be emphasized; $\text{h}$ seems to have been a rather neutral term. The $\text{h}$ is also mentioned accompanied by or in
association with its calves (hḥa) and in the stables (ḥḥv). This word was used to describe Hathor (note the similar term ḫḥv naming the son of this ‘cow’ goddess).

The terms given to fully mature cattle were k3 ‘bull’ (Wb V, 94, 7-96, 8 : der Stier; Wb V, 97, 1-16 : das männliche Rind, der Ochse) and hmt ‘cow’ (Wb III, 76, 4-14: Kuh, weibliches Tier) (also read ḫḥt, k3t or ḫḥt). Both terms were applied to other animals denoting ‘male’ and ‘female’ respectively (note that both are written with signs representing the reproductive organs).

Bulls and cows are labelled k3 and hmt in various tomb scenes and the terms appear together in several other texts. In one text from Medinet Habu the words head two lists of cattle - the first of males, the second of their female equivalents. Writings as k3 ḫḥv ‘male bull’ may be errors.

The bull appears in representations and in texts as potent and aggressive - death by trampling was feared - and as such was considered a suitable metaphor for the reigning or deceased king. The king and his soldiers in battle were occasionally likened to bulls. References to the king as the ‘strong bull’ (k3 nḥt - Wb V, 95, 8 : der starke Stier) are extremely numerous, and not listed here, though it is worth noting that in modern Africa the bull is still identified with ‘political influence, authority or office’. K3 nḥt was also used as an epithet of deities, together with k3 rnp (Wb V, 95, 10-11 : der jugenstarkne Stier, see too Wb V, 97, 14), k3 ṣṭt (Wb V, 95, 12-14: ...begattender Stier...) and k3 nk (Wb V, 95,12-14 : begattender Stier); ‘bull of the west’ (k3 ḫḥntt) was also used of Osiris. K3 named people as well as deities and places. Cows were also associated with various deities, notably Hathor, and seven cows were held to inhabit the sky.

Bulls were sacrificed and appear in tribute or offering lists (sometimes the phrase ‘bull of the herd’ (k3 (n) ḫḥt: Wb V, 98, 1: als Bez. einer bes. Rinderart) is used) and were evidently considered valuable (more so than cows) - a rich man could be described as ‘k3 kḫw ‘with many bulls’. A bull’s hide is mentioned in one text and its horns in another, and various other parts of bulls were used in the medical texts (see below for the use of cows’ milk in these texts); medical treatment for a bull itself is recorded in a veterinary papyrus. Vessels were described as being decorated with the ‘faces of
bulls'74, and cakes in the shape of bulls are also recorded.75 Both red and white bulls76 are mentioned; see ḫḫ above and ḥḏ and ḫḏr below. Bulls were recorded as 'bellowing' (ḥḥḥḥn)77 and as state property.78 They were attended by overseers.79

Cows also appear in offering lists;80 the designation ḫḥt ḫwr (cf ḫẖ ḫwr)81 occurs as a variant of ḫḥt in this context.82 ḫwr (Wb I, 331, 15: göttliche Kuh) is also attested alone as the name of a deity in the form of a cow;83 ḫwr (Wb I, 331, 14 [in the toponym ḫḥt ḫwr]) also seems to have denoted cattle.84 The phrase ḫḥt ḫfrt is also found.85 ḫfrt (Wb II, 261, 13-14: die Kühe) is attested independently elsewhere as a designation for cows, and had an apparent masculine counterpart ḫfrw (not in Wb) which appears in a list of cattle.86 Both were used in agriculture; ḫfrt are depicted ploughing (cf ḫnwḥt)87 among other things,88 and ḫfrw treading seed.89 ḫfrt were also used to pull coffins.90 They were especially attached to the temples of Amun,91 and also associated with the cow-deity Hesat.92 ḫfrt were apparently of sufficient maturity to be mated;93 the term ḫfrt was also applied to women between childhood and maturity,94 and Clère95 noted of the word: 'ce n'est donc sans doute pas un terme général significant “vacher”, mais un mot de sens plus restreint s'appliquant à des bêtes encore jeunes, des gémisses ou les vaches qui viennent d'avoir leur premier veau'.

Cows were often depicted in tomb scenes giving birth to or together with calves and being milked;96 many terms for cows other than ḫḥt are derived from these images.

'Ḥṛtxt (Wb I, 114, 18: Milchkuh)97 is related to ḫḥtxt 'milk' (Wb I, 117, 1-6: die Milch). Wb recorded a similar term ḫḥrt (Wb I, 116, 6: 'zur Milch gehörr'; Wb I, 116, 7: Auch allein für Milchkalb)98 but this only occurs in the phrase bḥṣ ḫrt and would seem to indicate a calf before weaning still dependent on its mother for food. ḫḥčt, a 'nursing-cow',99 (Wb II, 78, 10: die Milchkühe; compare Wb II, 78, 1-9: die Amme and Wb II, 77, 10-13: säugen), was also used for milking, like the ḫḥxt100, and occurs in offering lists101 and elsewhere.102 In one text103 it is mentioned in parallel with the ḫḥxt (Wb II, 113, 16: Milchkuh), the name of which may be associated with ḫḥr 'milkjug' (Wb II, 115, 5-8: Milchkrug) var. ḫhr (Wb II, 113). ḫhr also occurs as a verb 'to milk, to suckle' (Wb II, 115, 9-16) and as a noun designating dairymen (Wb II, 115, 18: der Melker), and in the Ptolemaic Period, cows (Wb II, 115, 17: die Milchkuh).
A further term apparently denoting a cow appears only once in a description of the goddess Anat; this is (smrvt (Wb I, 187, 4: Milchkuh).\textsuperscript{104} In a text from Tanis Ramesses II is described as 'the suckling (mhr) of Anat';\textsuperscript{105} which again identifies her as a cow. In Sumerian the very similar amar means 'young bullock',\textsuperscript{106} but no masculine equivalent of smrvt is known at present from the ancient Egyptian texts. A variant writing of smrvt in 'syllabic orthography' on an ostracon would indicate that it was a loan-word from a Semitic original.\textsuperscript{107}

Another term recorded by Wb as denoting cows, sbnt (Wb IV, 90, 1: Bez. für Kühe), appears with cow determinative only in the Pyramid Texts;\textsuperscript{108} the verb sbnt has been translated 'suckle';\textsuperscript{109} - compare Wb IV, 90, 2 (hrd n sbnt): Säugling - though Vandier compared bnn 'engender' (Wb I, 460, 6-7).\textsuperscript{110}

A cow in calf was described as bkst 'pregnant' (Wb I, 81, 14: Mutternuß; compare Wb I, 481, 1-11: schwanger werden, s. sein; schwängern),\textsuperscript{111} a term also used of other animals - a gazelle (ghw bkst) and a pig (ibks). Cows (hmt) were noted for their care of their young,\textsuperscript{112} and their contentedness in so doing - the verb jrne 'be pleased' (Wb I, 11, 7: Verbum. Von der Freude der Kuh am saugenden Kälbchen oä) has as determinative a cow turning her head towards her suckling calf. The contentedness of cattle is also reflected in the verb jws (Wb I, 49, 12: sich freuen) with cow determinative; jws is well attested as the name for a type of cattle (see below).

Other words applied to cows are (or may be) female equivalents of terms for male cattle: wndt (not in Wb), var. wndt (Wb I, 326, 4: Rindvieh), xwnrt (Wb II, 409, 1: Kuh, die noch nicht gekalbt hat), hr- sât (Wb III, 135, 8), dât (Wb V, 585, 9), bhst (Wb I, 469, 11), wât (not in Wb) and smât (Wb IV, 128, 8-10). These are discussed together with the masculine terms below.

Much of what has been written concerning the jws (Wb I, 49, 9-11: Rind)\textsuperscript{113} and the ng (Wb II, 349, 1-5: Art große Rinder mit langen Hörnern), apparent variant gw\textsuperscript{114} seems to have been derived from the ideas of Montet,\textsuperscript{115} whether or not the source is acknowledged.\textsuperscript{116} The only substantial earlier work was by Jéquier on the ng,\textsuperscript{117} and this type was also the subject of an article by Otto.\textsuperscript{118}
Montet distinguished the ɩw3 and ng in terms of appearance and habitat: 'le ioua, plus corpulent, demeurait généralement à l'étable, tandis que le neg, plus farouche, vivait dans les prairies'. The ng, he noted, 'est moins corpulent et plus haut sur pattes'; 'les cornes sont magnifiques, très acérées, généralement évasées aussi bien chez le mâle que chez la femelle, quelquefois elles sont droites et petites', though he also remarked occasional hornless examples.  

Examination of the representations in which the two types appear together shows that the differences in build quoted above are by no means consistent, and variations in the build of cattle labelled with the same name is also visible. Most of the representations discussed below show the rn ɩw3 or rn ng as well as animals named ɩw3 or ng alone. Rn does not seem to denote an outward characteristic of the beasts; the term is discussed further below. The ng does often have medium-length or long horns, but occasional hornless examples, together with one showing abnormally shaped horns are known. Horn deformation is more common among the ɩw3 which may have horns of any length or be hornless. Hornlessness is a naturally occurring phenomenon and the presence of hornless cattle in the tomb scenes is not in itself evidence that the ancient Egyptians practised polling. Even though zoologists have divided breeds of cattle according to horn shape, this was clearly not the way the ɩw3 and ng were distinguished, and care should be taken not to divide unnamed animals in the reliefs into ɩw3 and ng solely on the grounds of their appearance.  

Jéquier described the ng as semi-wild, caught by lassoing (mph), though it was evidently differentiated from true desert animals as it was never depicted with them. This lassoing appears to have had some ritual significance; though there is a picture of a ɩw3 being lassoed this was obviously of lesser importance as it never became part of a ritual. Jéquier deduced from comparison with the term ng 'kill' that this animal was for sacrifices and to be butchered. (Note, however, that there is also a term ng (Wb II, 348, 4-5) meaning 'cry out' which might indicate that the name ng was derived from the animal's lowing.) Montet asserted, on the other hand, that 'le boeuf ioua était l'animal de boucherie par excellence', and its importance in this respect was also noted by Ghoneim. Fattened examples (ɩw3 dd1; Wb V, 631, 7-9: Rind uā) are mentioned several times. They were often sacrificed and mentioned in connection with festivals. Both ɩw3 and ng are very frequently attested in offering and
tribute lists and in tomb scenes. Ng also appears in the Pyramid Texts. The \( \text{\textit{lw}} \) was recorded from Kush, and the parts of its body were used in the medical texts, and elsewhere.

\( \text{\textit{lw}} \) are frequently mentioned in conjunction with \textit{mdtt} 'stalls', (\textit{Wb II}, 185, 1-7: Viehhof, Stall), like other domesticated (or semi-domesticated) animals, though the \( \text{\textit{ng}} \) are not. Both \( \text{\textit{lw}} \) and \( \text{\textit{ng}} \) are shown in the fields (\textit{Mr}) and could be tethered, led, driven and similarly bedecked with flowers. This evidence gives the lie to the assertion that the \( \text{\textit{ng}} \) and \( \text{\textit{lw}} \) were from different habitats and stages of domestication and treated substantially differently. The \( \text{\textit{ng}} \) was also used for transport and for treading seed into the ground.

The females of both types are mentioned in Egyptological literature. The female equivalent of \( \text{\textit{ng}} \) seems to have been simply \textit{hm(t)} or \textit{hm(t) wr(t)}. A feminine form of \( \text{\textit{lw}} \), \textit{\textit{lw}t} (\textit{Wb I}, 49, 13: Kuh), is attested though the term is applied to males as well as females (\textit{Wb I}, 49, 14: als Kollektivum: Rindvieh?) and appears as the name of a type of loaf (\textit{Wb I}, 49, 15: Art Weißbrot in Form eines Rinderkopfes) and of the children of Hathor. The masculine form \( \text{\textit{lw}} \) is also used of cows.

In the list of male and female cattle at Medinet Habu mentioned above, where the lists are headed by \( \text{\textit{kl}} \) and \textit{hm(t)}, \( \text{\textit{ng}} \) follows \( \text{\textit{kl}} \) in the list of males and has no specific female equivalent. This would indicate that the female \( \text{\textit{ng}} \) was called \textit{hm(t)}, as is suggested by the parallelism of \( \text{\textit{ng}} \) and \textit{hm(t)} in the offering lists. Sometimes, a 'male \( \text{\textit{ng}} \)' (\textit{ng \textit{kw}}) is specifically named; this, like \( \text{\textit{kl} t\textit{yw}} \) (see above) may be an error. The Medinet Habu lists end with the terms \textit{bh\textit{s}} and \textit{bh\textit{st}}, denoting calves (see below), from which it may be concluded that the lists are arranged in order of age. \( \text{\textit{ng}} \) would, therefore, be a sub-adult male. As most representations of the \( \text{\textit{ng}} \) do not show the animals' testicles it might be assumed that \( \text{\textit{ng}} \) was a castrated adult; in a few cases, however, they are shown intact (compare representations of \( \text{\textit{kl}} \)) and in a few cases \( \text{\textit{kl}} \) 'bull' replaces or parallels \( \text{\textit{ng}} \) in variant texts.

\( \text{\textit{lw}} \) almost always seem from the tomb scenes to have been castrated, though in other cases they evidently were not, and the specific mention of 'castrated \( \text{\textit{lw}} \)' (\textit{lw\textit{sba}}) likewise suggests that \( \text{\textit{lw}} \) does not necessarily denote a castrated bullock.
\'Iw3 also appears in combination with the names of other animals (as do ka, hmt(t) and bhs)\(^{167}\) - the oryx,\(^{168}\) gazelle\(^{169}\) and ibex\(^{170}\) and possibly also the ng.\(^{171}\) As these were animals which the ancient Egyptians at least attempted to domesticate Junker\(^{172}\) explained \'Iw3 thus: 'Am wahrscheinlichsten ist die Bezeichnung der auf Fleisch gezogenen Tiere, der Mastrinder'. In one text \'Iw3w nw \(n\text{I}\)w3w is paralleled by wnm(w) n lw3w;\(^{173}\) which would indicate a connection between lw3w and wnmw. Wnmw with cattle determinative is obviously related to wnm 'eat' (Wb I, 320,1 - 321,12: essen) so Junker's suggestion may well be correct.

\'Iw4 itself is sometimes qualified in the phrase \(\text{rn}(n)(n)\)lw3.\(^{174}\) Since both lw3 and this phrase can appear together\(^{175}\) it is evident that some differentiation between the two was intended, though in one text 5 \(\text{rn}\)lw3 are described in an accompanying inscription as lw3 only.\(^{176}\) Rn (Wb II, 429, 1-5: Jungtier oä als auszeichnende Bezeichnung für Vierfussler, die zum Schlachten bestimmt sind) also appears combined with kt, ng and bhs\(^{177}\) as well as the names of other animals which were (semi-)domesticated, including hyaenas.\(^{178}\) The original Zettel for the Wb entry compared Coptic p\(\text{o}\)\(\text{o}\)\(\text{o}\)\(\text{Nt}\) 'virgin',\(^{179}\) and this comparison has been made by other authors.\(^{180}\) A similar translation was put forward for the feminine term r\(\text{w}\)\(\text{n}\)\(\text{t}\) (Wb II, 409, 1: Kuh, die noch nicht gekalbt hat).\(^{181}\) Although the masculine \(\text{rn}\)(n) first appears as a qualifier it later occurs independently denoting cattle (Wb II, 435,13: Art Rind - or should this read \(\text{rn}\) lh ?)\(^{182}\) and variant forms \(\text{rn}\), \(\text{kn}\), \(\text{rnw}, \text{knw}\) (Wb II, 429, 8: Jungtister) are also attested.\(^{183}\)

It has been suggested that \(\text{rn}\) denoted animals which were suitable for sacrifice either in terms of purity (ie 'virgin')\(^{184}\) or because of their youth. As \(\text{rn}\) is applied to apparently adult animals it would, therefore, indicate young adults;\(^{185}\) however, this would not explain the appearance of a \(\text{rn} bhs\) (see below).\(^ {186}\) Nevertheless, animals not described as \(\text{rn}\) were often named as offerings so \(\text{rn}\) must indicate an additional (desirable) quality. This is not a quality which can be detected from the reliefs. Some have suggested 'domesticated'\(^{187}\) as a translation, but \(\text{rn}\) is also applied to animals described as 'of the desert'.\(^{188}\) In view of these problems it seems best to leave the translation of \(\text{rn}\) until some unequivocal evidence comes to light.

The Medinet Habu cattle list has already been referred to above in connection with the discussions of ka and ng and what is apparently their female equivalent, hmt. The last member of the list of terms for
male cattle is bhst (Wb I, 469, 4-10: das Kalb; Wb I, 469, 11 (bhst); fem. zum vorstehenden Wort). In various other texts bhst appears to designate young cattle \(^{189}\) (note especially the records citing bhst with cows and their 'mothers' \(^{190}\) and representations showing obviously young calves \(^{191}\) and sometimes even new-born animals. \(^{192}\) A representation of a bhst at Deir el-Gebrâwî showing a calf being encouraged to drink from a bowl \(^{193}\) may indicate that bhst designated the young unweaned animals. From this evidence it may be deduced that the Medinet Habu list arranges the cattle in descending order of maturity, with bhst the lowest age group. Certain phrases, however, seem to belie this interpretation, as does the representation of the rn bhst in Copenhagen; the animal shown, although hornless, is as large and heavily built as the two rn īw which precede it (for further discussion of this animal see rn above). Wb clearly also saw this as a problem, noting various references to bhst under the heading 'hornlose erwachsene? Rinder'. \(^{194}\) Bhos wād 'young bhst' \(^{195}\) (compare the kā wād and īh wād \(^{196}\)) and bhst ēri 'little bhst' \(^{197}\) (cf. the īh ēri mentioned by Janssen \(^{198}\)) could indicate different age groupings within the group 'bhst'. Bhst šch, 'castrated calf', (Wb IV, 81, 16: kastriertes? Kalb), indicates a further subdivision of bhst. \(^{199}\)

Bhos was used of animals other than cattle, notably sheep and oryxes \(^{200}\) and thus appears to have been a general term for young animals, as hmt 'cow' was for all female animals. (The phrases bhīhs hūbw and bhīhs hwrr are perhaps not to be included among such usages although both īhēb and hwrr are attested as animal names; \(^{201}\) note, however, the phrase īh km hūbw from P. Boulaq VI \(^{202}\) and the spotted calf described as bhīhs hwrrty in the Book of the Dead. \(^{203}\))

Bhos were given as offerings, \(^{204}\) most notably in the ritual hwt bhsw \(^{205}\) in which four calves of different colours (black, white, red and variegated) appear. Bhos appears in the medical texts \(^{206}\) and man's heart is compared in a song to a sickly calf; \(^{207}\) in the Pyramid Texts bhōs occurs in parallel with an otherwise unattested term hīd (Wb III, 237, 1: parallel zu 'Kalb (bhōs) von Gold') as the child of the hśt-cow. \(^{208}\) Bhos has been compared with an Arabic word and may be derived from a common Semitic root. \(^{209}\)

Ms, which also designates the young of cattle, \(^{210}\) is a later term; while bhōs appears in the Pyramid Texts, \(^{211}\) ms does not. Both are found in Coptic -mac 'young, mostly of animal or bird' \(^{212}\) and ẖfr 'heifer'. \(^{213}\)
Another term for a calf (Wb V, 361, 1: Kalb) may be found in the writing of the toponym tb-ntr (Coptic καμενογι, Gr. Σιβέννυτος) which sometimes shows a calf alone or lying at the feet of a cow.214

Between the most and least adult animals in the Medinet Habu cattle list lie hr(t)v (fem. hr(t)at) (Wb III, 135, 7: Art Rind; III, 135, 8: fem. zum vorsteh. Wort and III, 150 - var. writing only) and d(r)(t) (Wb V, 585, 8-9: als Bez. für kleine Kälber and Wb V, 585, 10: männliches Kalb). Both types are depicted in the tomb of Rekhmire.215 The same scene also shows ng3w and wndw and is, therefore, useful for comparing the types of cattle and confirming the order of the Medinet Habu list. On the upper register the hr-s3 are depicted beside the ng3w (twice) and wndw (once) - five of them are hornless, three have short horns (shorter than those of the wndw). On the lower register are four animals, proportionately larger than those on the upper register but similar in build and shape (all have short horns of similar length to those of the wndw behind them). The d(r)t depicted on the same register by the ng3w is smaller than the ng3w and wndw behind it; the restoration of the top of its head shows short horns (like the hr-s3 of the top register).

Hr-s3 is found in cattle lists in various papyri216 and an ostracon? 17 In some but not all of these the order is similar to the Medinet Habu list. In another papyrus drt follows another cattle term (mr; see below).218

In the Pyramid Texts219 the occurrence of hr-s3 in a punning phrase ('you are behind him (lit. 'at his back') as a hr-s3'(lit. 'an at (his) back [cow]')) has been used to support the translation 'later, elder (animal)' that is, one no longer a calf.220 Newberry gave 'two-year-old ox' for hr-s3 and 'yearling' for d(t);221 these were regarded as 'plausible' translations by Edgerton & Wilson. Two more examples of hr-s3 are recorded in the Coffin Texts and on a tablet in Turin (5237: Amenemope 24, 1-25, 9).222 Another example of drt is found at Abydos.223

In all cases where both hr-s3 and d(r)t occur, hr-s3 precedes d(r)t, and may have been given priority because of its greater age; the translations 'bullock/heifer' or 'two-year-old' (hr-s3) and 'yearling' (d(r)t) cannot, without further evidence, be confirmed.
Two further terms for cattle are apparently derived from the animal's age: mnh (not in Wb) - compare the term designating a young man (of an age between that of hr₃ and g)²²⁴ - and rnp (Wb II, 434, 20: junger Stier als Bez. des Month). Both occur with cattle determinative only in Ptolemaic texts, but a phrase mnh n k₃ does occur on an ostracoon.²²⁵ The determinative here is also of a man, so it may be surmised that both the terms were borrowed human age terms.

Wnd₃ as an animal name appears in the Old Kingdom with goat determinative but from the Middle Kingdom this writing disappears and wnd₃ with cattle determinative (Wb I, 326, 2: Art Rinder mit abgeschnittenen Hörner seems to take its place. Wnd₃ (goat det.) is attested in animal lists following l₃ (see Ch. 7: Goats) and it is noteworthy that wnd₃ (cattle determinative) also almost invariably appears in lists immediately after l₃.²²⁶

A very noticeable feature of representations of the wnd₃ is that their horns are short and often have blunted ends as if they had been trimmed (cf Wb entry)²²⁷ though others are hornless.²²⁸ Ghoneim commented (CRihd, p.80): ' wnd wird in der Tat meist verwendet als Bezeichnung der künstlich enthörnten Rinder, wird aber auch für die Rinder mit kurz abgesägten Hörnern gebraucht, die aber erst dem Mittleren Reich belegt sind'. Exceptions may be indicated at Abydos, where the determinative of wnd₃ is hornless, and at Beni Hasan, where a label to a scene names l₃, wnd₃ and k₃ but all the cattle depicted are long-horned;²²⁹ and a rn n wnd₃ in an offering scene at Luxor has medium-length horns²³⁰ (cf the long-horned wndvt²³¹). A young calf is once designated wnd₃²³² and on two occasions wnd₃ is combined with bhs 'calf'.²³³

The word wnd₃ does not give a clue towards the meaning of the cattle term; words written wnd₃ are recorded in Wb from a few very disparate contexts.²³⁴ Maspero²³⁵ and Andersson²³⁶ both analysed the word as wn + dw, Maspero from wnd₃ 'le taureau chargeant' and dw₃ 'la montagne', deducing the meaning 'le boeuf de la montagne' or 'le boeuf sauvage'. Andersson compared the term for a mirror, wn₃ (Wb I, 313, 7: Bez. des Spiegels), lit. 'that which opens the face', (ie 'that which shows or reflects the face'), and interpreted wnd₃ as 'ce qui montre (un) la forme d'une montagne (tu)', which he believed referred to the shape of the top of the animal's skull once the horns had been removed.
Hr-dbC (Wb III, 136, 6; hornloses Rind) - the reading hr-tnt has also been suggested - is often taken to be a designation of hornless cattle since all the animals over which this name appears are hornless. It has also been asserted that hr-dbC was applied to dehorned cattle (cf wnm above). As has been seen in the preceding pages, however, while it is clear that the ancient Egyptians' cattle included long-horned, short-horned, dehorned and hornless beasts, the Egyptians did not distinguish their cattle on this criterion (alone). Among the named representations of cattle it is noticeable that lw3, ng and k3 all comprised animals with various horn lengths or no horns at all. While hr-dbC is unusual in that all the cattle so named are hornless this cannot be accepted uncritically as a term for hornless cattle.

In two instances hr-dbC is found in close association with other cattle terms, once in the phrase lw3 n mdst hr-dbC (only one animal appears under this heading so it can be assumed that the whole phrase refers to it) and in the tomb of Meresankh at Giza (in the sentence tt bhs edd hr dbC). Rn hr-dbC also appears; for wn see above.

Goedicke translated the Meresankh text 'pulling the calf which was suckled upon the finger' comparing Junker's and Montet's translations 'daß das Tier mit den Fingern gefuttert, genudelt wird' (cf Wb IV, 564,17 - 565,15: säugen, aufziehen) and 'celui qui est sur le doigt', 'celui qu'on conduit au doigt' (cf Wb IV, 560,8 - 562,19: nehmen, fortnehmen, herausnehmen uä) respectively. The latter is unlikely to be the meaning here, since the animal is being led on a cord like the lw3 and lwC which precede it. It is possible, therefore, that hr-dbC does refer to the method by which the calf was fed. In any case hr-dbC is clearly a descriptive phrase and not of the same order as the age terms recorded in the Medinet Habu cattle list. Andersson explained the disappearance of hr-db after the Old Kingdom by supposing that it was subsumed under the term lw3; available evidence neither confirms nor denies this.

Another term with descriptive force which has a cattle determinative but is used in combination with a different animal name (ib3w - see Ch. 2: Antelopes and Similar Animals) is wnm (Wb I, 321, 20: Masttier(?).) The term appears only once, in the Coffin Texts, in parallel with lw3, which may be of use in the further interpretation of that term (see above lw3 for text and discussion). The word is presumably derived from wnm 'eat' (Wb I, 320, 1-321, 12: essen).
Four other Egyptian terms for cattle were derived from their colouring: hd.t 'the white' (Wb III, 212, 4: als Name eines (heiligen?) Rindes) and dæk 'the red' (Wb V, 492, 12: Rind, das zu Opfern bestimmmt ist) are recorded by Wb only from Ptolemaic texts (compare hd and dæk describing lh and kx, above), but kmt 'the black' (Wb V, 125, 5-9: Bez. für heilige schwarze Rinder) and sabt 'the piebald' (Wb IV, 18, 3: bunte Kuh) are both preserved from earlier periods. These four colours are also the colours of the four calves of the hwt bhsw ritual mentioned above (see bhsw) and bulls of red, black and white (and assorted combinations of these colours) are noted in the Ramesseum onomasticon.

Other types of cattle names seem to have been derived from the use to which the cattle were put - for example, traction. HtrL (Wb III, 199, 8-10: Gespann der Rinder), sometimes showing as determinative two cattle attached to a plough, was used of a team pulling a plough or cart. The term also appears in the medical texts. In the New Kingdom the words n lhw 'of cattle' were added to the term to distinguish it from the same word which was then commonly applied to horses. Skä (Wb IV, 316, 11: der Pflugstier), from the root ski 'plough' (Wb IV, 315, last entry - 316, 9: pflügen), emphasizes the rôle of cattle in ploughing, though donkeys and goats were also used for this. Nhw (not in Wb) possibly related to nhb 'harness', 'yoke' (Wb II, 293, 3-7; II, 293,1-2: Joch, cf nhbt: Wb II, 292,9-16: der Nacken, der Hals) has been translated 'draught-cattle'; similarly one of the terms from the Ramesseum Onomasticon, ãth (not in Wb but cf Wb I, 148, 12-23: ziehen), is explained (as restored and translated by Gardiner) 'That is a draught-ox(?)....

In the Pyramid Texts there is a passage in which several terms with cattle determinatives appear in punning phrases and it is notable that many of the puns concern verbs of violent action - strike, kill, hit etc. One of the terms, Id (Wb I, 152,2: Bez. für ein Rind), occurs only here, as does its corresponding verb (Wb I, 152,1: Verbum). Another, pdt (Wb I, 569,6: Bez. eines Rindes), which Wb compared with pd 'niederstrecken' (Wb I, 567,8 - 568,13), is attested both from the Coffin Texts, where the deceased promises not to eat the butchered animal, and in a record of offerings. Both these contexts suggest that pdt designated a sacrificial (or sacrificed) animal.
Wb recorded šär (Wb IV, 547, 8-9: Schlachtrind) only from Ptolemaic texts, exceptions being the above Pyramid Text and late attestation which is unfortunately fragmentary. At Abydos the term appears in parallel with našu (see above for našu); these both occur again on an offering list now in Leiden. Such references were discussed at length by Otto who, following Sethe, believed that šär, related to šar 'arrow' (Wb IV, 546, 7-17: der Pfeil), was derived from the method of killing the animal: 'the more general meaning, "a bull killed by an arrow" seems to be more natural as the original conception... Thus šär seems by no means to denote a species of cattle but is an appellative derived from a special way of killing'.

The remaining term from the Pyramid text set, sm (Wb IV, 123, 14-17: Schlachtopfer; Schlachtstier, Schlachtrind & Wb IV, 124, 1-7: der Wildstier), fem. smt (Wb IV, 128, 8-10: das Weibchen des Wildstiers), may be related to sm 'kill' (Kb IV, 122, 7-123,11: töten). Only three of Wb's references to the sm as a sacrificial animal are from pre-Ptolemaic texts, all from the New Kingdom. The translation of sm as 'wild ox' is owed to representations of these cattle among other desert animals; as such they could be hunted. The king was described as a sm and in the Pyramid Texts was identified especially with the sm or sm wr. Sm was also the name of a warship; the tails of sm were used on boats. The species was identified as Bos africanus Brehm or Bos primigenius Bojanus by Hilzheimer; however, believed the 'wild' cattle to be feral examples of the domestic type.

Another cattle term derived from a verb meaning 'fell', 'kill' is hryt (Wb II, 322, 6-323, 7: Schlachtvieh) var. hrt (Wb III, 322). In the determinative the animal is often shown tied up in preparation for butchering. Indications that hryt was not specifically a cattle designation but rather a term for a (ritually sacrificed) offering, which might consist of cattle, are provided by the double determinative in an Old Kingdom Mastaba and in the Book of the Dead and by the phrase kṣl hnr hryt (specifying that the hryt here does refer to cattle rather than any other type of animal) also in the Book of the Dead.

Other terms appear to be derived from the bull's habit of fighting; Wb recorded mr (Wb II, 106, 8: Kampfstier) and hww (Wb III, 45, 2: Bez. für (kämpfende) Stiere) from scenes of fighting bulls, and gave
three more terms with similar translations: pry 'which sets, starts off' (Wb I, 526, 2: als Bez. des Kampfstiers)\textsuperscript{285}, twnw (Wb V, 359, 13: Kampfstier),\textsuperscript{286} the determinative showing a bull pawing the ground before its attack, and wabı, 'the answerer, opponent' (Wb I, 373, 4: Bez. für den Kampfstier),\textsuperscript{287} which appears to have a female counterpart wabı (not in Wb).\textsuperscript{288}

A further small number of terms for cattle of various etymologies are known: ḫrw (Wb I, 114, 4-5: Abgabe vom Vieh, bes. von den Rinderherden),\textsuperscript{289} var. ḫryt,\textsuperscript{290} wدب (Wb I, 284, 16: Art Rind),\textsuperscript{291} ḫdw (Wb I, 398, 13-14: freiumher-schweifende Rinder),\textsuperscript{292} nw (Wb II, 218, 1: in (kš)-nw : Art Rind),\textsuperscript{293} nr (Wb II, 279, 6: ob identisch mit dem Vorstehenden, ie nr Hirt, Hüter),\textsuperscript{294} nhrw (Wb II, 298, 13: Art Frohnde),\textsuperscript{295} ḫt (not in Wb),\textsuperscript{296} ḫrp (Wb III, 329, 15: Bez. für Rinder: Zinstrinder),\textsuperscript{297} ḫbhvt (Wb IV, 91, 9: [in] ḫyw ḫbhvt: Rindergebrüll),\textsuperscript{298} tpy (Wb V, 296, 5-6: Art Rind),\textsuperscript{299} and ḫnw (Wb V, 379, 16: Bez. für Rinder), var. ḫntt (Wb V, 376, 3-4: die heiligen Kühe der Hathor).\textsuperscript{300} Two further terms, ḫmt (Wb III, 333, 2: in dem lokalen Titel [imy-r ḫmt ḫnrw] & III, 296, 10) and ḫwy (Wb II, 112, 5-8: ein Gott in Tiergestalt) are found only in titles.\textsuperscript{301}
Chapter 5 : Dogs and Similar Animals

The wild canidae\(^1\) are represented in Egypt today by the Common, Oriental or Golden Jackal (\textit{Canis aureus} L), in particular the subspecies \textit{C.a.tripolitanus}\(^2\), \textit{C.a.nubianus}\(^3\) and the Egyptian or Wolf-like Jackal (also 'Egyptian Wolf') \textit{C.a.lupaster}\(^4\), the Red Fox (\textit{Vulpes vulpes} L) with \textit{V.v.niloticus} Geoffrey\(^5\) in Egypt, the Sand or Rüppell's Fox (\textit{V.rueppellii} Schinz) and the Fennec (\textit{Fennecus zerda} (Zimmermann)). There are a number of other canids now inhabiting northern Africa which may at one time have been present in Egypt, notably the Side-striped Jackal (\textit{C.adustus} Sundevall), the Black-backed Jackal (\textit{C.mesomelas} Schreber), the Abyssinian Wolf or Sim(en)ian Jackal/Fox (\textit{C.simensis} Rüppell), other subspecies of \textit{C.aureus} such as \textit{C.a.bea} Heller, \textit{C.a.syriacus} Hemprich and Ehrenberg and \textit{C.a.soudanicus} Thomas, and the Pallid or Pale (Sand) Fox (\textit{V.pallida} Cretschmar).\(^6\) It has been stated that the wolf (\textit{C.lupus} L, Common, Grey or Timber Wolf) has never occurred in Africa,\(^7\) but a subspecies \textit{C.l.oallioes}, supposed by some to be the ancestor of the domestic dog, has been described from the northern part of the Arabian peninsula, Palestine and Sinai. At the edge of this habitat another subspecies, \textit{C.l.arabs}, the Arabian Wolf, is found.\(^8\)

Although wild canids appear in ancient Egyptian desert hunting scenes, the names of only two are shown accompanying representations: 
\textit{wnā} (\textit{Wb} I,324,16-18: der Wolf (Schakalswolf)) and \textit{s\textsuperscript{b}h} (\textit{Wb} III, 420,5-13: der Schakal). In one scene where both appear together the \textit{wnā} is larger and a darker ochre in colour than the \textit{s\textsuperscript{b}h}.\(^9\)

In addition to being depicted as an animal of the desert the \textit{wnā} is mentioned together with other desert species (the lion, and the bear) in a spell for 'shutting the mouth' of dangerous beasts.\(^10\) Other texts show that it was considered a danger to man, like the crocodile,\(^11\) and it was mentioned in what are apparently curses.\(^12\) The \textit{wnā} was evidently a scavenger, eating fish stranded by a low Nile,\(^13\) though it is described elsewhere a menace to livestock, entering byres\(^14\) or attacking cattle in the fields.\(^15\) The same was true of the \textit{Is\textsuperscript{b}h} (\textit{Wb} I,132, 22: Ausländischer Name einer Wolfs- (oder Hunds-)art), described as a 'red \textit{wnā}' (\textit{wnā dēr}) and found in Syria;\(^16\) this text also records the \textit{wnā} in Syria.\(^17\)
From certain references the wsä appears to have been nocturnal, living in caves during the day, and this same shrinking behaviour was noted in the king’s enemies or quarry. It could evidently be tamed as a pet and an ostraca records the sale of a one-year-old pup. The skin of the wsä was used to make -garments (see also hadd below).

Wsä is recorded as the name of a constellation (?) in the Coffin Texts, and both wsä and the feminine form wsät (Wb I,325,3 : die Wölfin) were popular as personal names; a form wsäb is also known. Wsä was also the name of a canid-headed object (Wb I,325,2).

The sib is sometimes depicted pulling the solar bark – the animals in this context are sometimes called the souls (hbw) of Nekhen or of the East or West. The sib appears in two texts extolling Rê-Harakhti together with a yás, var. yas (Wb I,134,20: Art Hunde), which has a determinative in one case very similar to that of the sib, but in the other shows the short curly tail of a dog. These two creatures occur together as animals of the Delta marshes (iḥb) in a text at Karnak. The very similar term yas (var. yas) appears as the name of a jackal-headed deity, once in parallel with two terms recorded by Wb as the names of dogs, bfn (Wb I,456,4-5 : Hunde) and bhn (Wb I,468,20: Art Hunde). Writings of the form yas/iḥb occur as epithets of Seth (eg Wb I,33,13 and I,134,20) and it may be that the yas/iḥb/ Yas designates the 'Seth animal', or at least a real animal of the dog or jackal type with which Seth was closely associated. At Beni Hasan this apparently mythological creature has a jackal-like form and is called yas. In view of the texts mentioned above in which the yas/iḥb praises the sun god it is interesting to note the rôle of Seth as protector of Rê in the solar bark, and a representation of the bark pulled by both jackals and Seth animals.

The sib was frequently associated with the king. In the Pyramid Texts parts of his body are described as those of a sib. In New Kingdom inscriptions his fearsome countenance is compared with that of a sib and his swift progress in conquering foreign lands is likened to this fleet-footed animal. The same comparison is made of a horse, a presumably raging illness, gaming pieces in the hand of a skilled player and even the wsä. Headless sib appear in a magical text.
In two of the texts comparing the king with the sib the reference is specifically to a 'southern sib' (sib ʾem'); sib ʾem' also appears as the title of a nomarch. No equivalent 'northern' sib is attested. The epithet 'southern' is combined with only one other animal name, 3bv; the 'southern 3bv' is the leopard, the 'northern 3bv' is the cheetah. It should be noted that these phrases do not appear until the New Kingdom; before this the leopard and cheetah seem to have been given entirely distinct names (b3 and ntrt respectively). Sib and sib ʾem', by contrast, both appear in the Pyramid Texts, particularly in association with the deities Anubis and Wepwawet.

It has been stated that the sib ʾem' was the Anubis animal, that Wepwawet took the form of a sib, and that these animals appeared in the Pyramid texts with respectively recumbent and upright posture. Closer examination of the determinatives reveals that the latter is not the case. In addition two New Kingdom texts describe a sib ʾem' as 'the opener of the ways' (wn w3wt); the sib ʾem' and Wepwawet also appear together on the Shabaka Stone. Anubis elsewhere appears in parallel with [sib] wR.

The late Ptolemaic P. Jumilhac, though it mentions Anubis, Wepwawet and the animals associated with them many times, does not help to resolve the problem of distinguishing or identifying the sib and sib ʾem'. Sib occurs only once in this papyrus, in a description of the wns and not as the name of a sacred beast. Instead it is the wns and tsm (Wb V, 409, 13-22: der Windhund, Hund) which have this distinction. This is reflected in later texts. In Coptic the oywW is mentioned as being revered at Asyut, the ancient centre of the cult of Wepwawet. If Asyut is to be identified with Greek Lycopolis it may be deduced that the Greeks saw Wepwawet (and the wns) as a wolf. Similarly Anubis at Cynopolis was seen as a dog (tsm). This, however, was not the earlier conception, though one New Kingdom text does associate Anubis and a dog (lw; see below).

It is clear from the Pyramid Texts that in the Old Kingdom it was the sib and the sib ʾem' which the Egyptians associated with the deities Anubis and Wepwawet though the distinction between the two types of sib was not rigid. The wns had no importance in early religious texts, and it was not until Ptolemaic times that Wepwawet was linked with this animal. In the New Kingdom, and increasingly so afterwards, Anubis began to be associated with the dog (tsm or lw). The relationship between the wns and the dog seems, at the date of P. Jumilhac, to have
been considered very close. After the Old Kingdom the sib appears in sacred texts only when pulling the solar bark and the sib šmṯ not at all. It may be that references to the sib šmṯ in New Kingdom texts are merely archaisms and that after the Old Kingdom the sib šmṯ and wnṯ became confused. This would explain the later association of wnṯ with Wepwawet.

In the past several authors have identified the sib as a fox, as well as a jackal. Jackals (C. aureus) will bury food and melanistic examples occur, which may explain the association of the sib with the corpse-tending Anubis, depicted as a black jackal. Sib may, therefore, denote the Common Jackal. Sib šmṯ and wnṯ may also designate jackals, possibly two of the subspecies of C. aureus in Egypt today. Indeed wnṯ has often been translated C. a. lupaster, which accords with the representation of the animal as larger and darker than the sib at Beni Hasan.

P. Jumilhac is noteworthy for providing a late attestation of a term otherwise recorded only from the Old Kingdom: hadd. Wb knew only examples from Edfu written hatt (Wb III, 333, 5: Art Tier). In P. Jumilhac the term (written hadd) appears to comprise both wnṯ and tem (the tem is also mentioned as one of its ḫpyw) and is associated with Anubis and Wepwawet. Hadd appears elsewhere as the name of a jackal-headed deity together with sib, ṣvḏ (see above) and bfn. The hadd is, therefore, certain to belong to the Canidae, as has been suggested by Montet.

The hadd of the Old Kingdom appears in clothing lists from various tombs. It is clear that some of the terms in these lists are the names of animals, and that the clothing was made of these animals' skins. Wnṯ appears in this context (see above), so it is not surprising to find another of the Canidae in the lists. (Hst, also from these lists, may designate another of the Canidae, possibly a fox; for this word see Ch. 13: Miscellaneous Mammals).

Three more words have been considered to name wild canids, but the evidence for all of them is slight.

The knmt (Wb V, 132, 8: ein Tier) occurs in the Pyramid Texts as an enemy of the baboon (mek). Sethe noted the Leopard and Cape Hunting Dog as the greatest predators on baboons. Brehm noted the mutual animosity of baboons and dogs, and Ember therefore compared knmt with
Hebrew and Aramaic and Arabic klib, Assyrian kalbu, 'dog' and Mehri koub 'wolf'. The surviving evidence does not allow a firm translation of knmt as 'dog' or any other animal; see Ch. 14: Miscellaneous Mammals for a full discussion of the term.

Wer (cf werji, Wb I, 363, 18: als Erklärung des Schriftzeichens ḫ) has been considered the origin of Coptic ṣawop 'fox'. This proposal was rejected by Černý, Westendorf and Vycichl, all of whom saw the Coptic word as a corruption of Greek βασσάρικα, 'fox'. Nevertheless, the fact remains that ḫ shows the head of a canid and wer may have named a species or type of jackal or fox; and Černý did compare the similar Coptic ṣoawj 'a desert animal' (Crum) with Bishārīn ubřaše 'Sudanese jackal'.

Wb noted the sign wist (Sign List S40) as the name of a fox-headed deity (Wb I, 259, 18: als Bezeichnung einer fuchsköpfigen Schutzgottes) and it is interesting to note that the word appears in parallel with other animal names in a Ptolemaic text from Madāmūd and as one of the animal forms assumed by a goddess. Meeks considered the term should be read wer (see previous paragraph), stating that 'les signes ḫ et ḫ étant parfois confondus à B[asse] Ep[oque]' .

Wt (not in Wb) was translated 'cub' rather than 'child' by Iversen, as it is sometimes determined with a jackal; he compared the word with wt (Wb I, 377, 20: alt sein? gross sein?) and wtw (Wb I, 377, 21: ältester Sohn). The meaning should doubtless be chosen according to the context.

The most common names for the domestic dog were tsm (Wb V, 409, 13-22: der Windhund, Hund) and āw (Wb I, 48, 3: Art Hund), var. ālw (Wb I, 50, 1: Art Hund). (For bfn and bhn see above). In one Old Kingdom representation tsm labels hunting dogs of slender build with upright ears and short, tightly curled tails and dogs of this type depicted on a Middle Kingdom stela were also described in a later text as tsm. A similar dog with rather shorter legs can be seen in certain writings of the personal name pa-lw-wr. In the New Kingdom tsm appears labelling a dog with lop-ears and long straight tail. The determinative of tsm in the Late Period Geographical Papyrus is, however, a jackal-like animal with a long tail brushing the ground behind it (see above for remarks on Anubis, originally conceived of as a jackal but later as a dog).
Although dogs were depicted frequently, either in hunting or domestic scenes (sometimes under the chairs of their owners)\textsuperscript{78} and were occasionally given pet names,\textsuperscript{79} the label 'dog' occurs only in the few scenes mentioned above. It is not easy to decide, therefore, from the pictorial evidence, whether \textit{t\textsc{em}} and \textit{i\textsc{w}} named breeds or types of dog or whether they were alternative terms denoting all domestic dogs in general.

The \textit{t\textsc{em}} appears in a text accompanying a hunter,\textsuperscript{80} it was noted for its speed\textsuperscript{81} and is recorded being beaten when disobedient (in a proverb).\textsuperscript{82} The \textit{i\textsc{w}}, on the other hand, is mentioned in the house(?)\textsuperscript{83} and in the street, where they could evidently be a savage nuisance (compare \textit{w\textsc{hn}} in this context)\textsuperscript{84} - one text recounts that an unfaithful wife was thrown to these animals.\textsuperscript{85} Another describes it more kindly as watchful for its master.\textsuperscript{86}

Dogs appear to have been regarded as items of livestock - \textit{t\textsc{em}w} were looked after by \textit{m\textsc{nw}} 'herdsman' (the term \textit{w\textsuperscript{ct} t\textsc{em}w} also occurs).\textsuperscript{87} \textit{m\textsc{nw}} are usually found in connection with cattle, goats, sheep, pigs or horses,\textsuperscript{88} and \textit{i\textsc{w}w} once occurs in a list with some of these same animals.\textsuperscript{89} Both \textit{i\textsc{w}} and \textit{t\textsc{em}} appear in the medical texts, \textit{t\textsc{em}} several times (particularly in treatments for the hair and limbs),\textsuperscript{90} but \textit{i\textsc{w}} only once.\textsuperscript{91} (No prescriptions for the bites of dogs are known though bites are recorded in other texts.)\textsuperscript{92} The \textit{t\textsc{em}} is recorded as having been imported from outside Egypt, though not the \textit{i\textsc{w}w} (\textit{I\textsc{w}}).\textsuperscript{93} \textit{I\textsc{w}}, but not \textit{t\textsc{em}}, was popular as a personal name.\textsuperscript{94} \textit{I\textsc{w}w} also appears in a veterinary text.\textsuperscript{95} In one magical text a model of a dog (\textit{i\textsc{w}}) is required in a charm to overcome death,\textsuperscript{96} in another the deceased is to be protected by magic from 'dogs and bitches' (\textit{i\textsc{w}w}, \textit{i\textsc{w}w}\textsuperscript{t\textsc{t}}).\textsuperscript{97} In a further magical text the \textit{i\textsc{w}w} is addressed as 'chewer of bones'.\textsuperscript{98}

The \textit{t\textsc{em}} appears in \textit{P. Jumilhac} as the animal associated with a number of deities, Anubis and Wepwawet,\textsuperscript{99} Anti and Horus,\textsuperscript{100} Osiris,\textsuperscript{101} Horrie,\textsuperscript{102} Seth,\textsuperscript{103} Thoth-Shu,\textsuperscript{104} Re,\textsuperscript{105} Geb,\textsuperscript{106} and Baba;\textsuperscript{107} sometimes the deity involved is not named.\textsuperscript{108} \textit{I\textsc{w}} is associated with Thoth\textsuperscript{109} and with Baba,\textsuperscript{110} and Anubis and the \textit{i\textsc{w}} appear together in a Dynasty 19 text in a spell to dispel a headache (\textit{gs-m\textsc{3c}}).\textsuperscript{111} The spell includes threats of violence against the sacred animals of certain deities if its words are not heeded: 'I will cause Suchos to sit shrouded in a crocodile-skin. I will cause Anubis to sit shrouded in the skin of a dog'. As earlier texts generally ally Anubis and the \textit{s\textsc{nb}} (\textit{A\textsc{m\textsuperscript{c}}}) (see above) this may indicate the beginning of the Greek
tradition that Anubis was a dog.

One text associates the lw and tsm very closely and lw alternates with tsm in the story of the doomed prince. The dog of the tale is first called lw by the seven Hathors. When a dog is first seen by the Prince it is called tsm, as it is in subsequent sentences, but later in the text is consistently referred to as lw. Both terms are found in other texts where the dog is used as a metaphor of devotion or servility.

Ember compared Hebrew lw 'jackal' with the Egyptian word; a similar term ej meaning 'dog' is found in Somali. The onomatopoeic Arabic name wäwi 'dog', representing the animal's howling, has also been likened to lw. In Egyptian lw(lw) appears as a verb meaning 'wail, lament', and this indicates a similar derivation for the animal name. This, and the resemblance of the tsm to the modern Basenji (which does not bark), prompted Handoussa to distinguish the tsm and lw as follows: 'Ainsi tout autre chien qui aboie fut mis dans la catégorie des lw ou lw: son qu'émet le chien. Le lw ou lw est donc le chien ordinaire, le tsm le chien racé'. However elsewhere the tsm is described as 'barking' (whwh, Wb I, 351, 10: 'bellen') so his distinction is not valid. Blok supposed that tsm named a particular sub-set of lw; the evidence given above suggests that the terms were largely synonymous, though the older term, tsm, was evidently first applied to hunting dogs.

Whrt is known to Wb only as a personal name but in Coptic its descendent oyZop is the common term for 'dog'. Vycichl compared it with north-Moroccan lwhar and Rif uhar meaning 'fox': 'Hierzu sei trotz des Bedeutungsunterschiedes ägyptisch w-h-roads, "Hund" gestellt, koptisch oyZop'.

For convenience all domestic dogs are known by the Latin binomen Canis familiaris L, and both lw and tsm can be translated thus.

The determinatives of mm (Wb II, 58, 15: ein Tier) show a creature with long tail and upright ears. The original Wb Zettel suggested 'ein einheimisches Tier' and 'Ob Hyäne', adding the further note - with mny 'giraffe' in mind - 'also ein Tier, der nach meiner Kopie keine Giraffe ist, wohl aber auch im Habitus an die Giraffe erinnert ... Ob eigentlich irgendein kleineres einheimisches Tier, deren Name dann später auch für das grosse fremde benutzt worden ist?' In view of this
it may be possible to suggest the Spotted Hyaena \((\text{Crocuta crocuta} \text{ (Erxleben)})\), which today is found in Africa south of the Sahara\(^{128}\) as a suitable translation of \(mm\).\(^{129}\)

The hyaena normally depicted by the ancient Egyptians\(^{130}\) was the Striped Hyaena \((\text{Hyaena hyaena} \text{ (L)})\) which is still present in Egypt. The Egyptian subspecies is \(H.h.dubbah\) Meyer, the Nubian Striped Hyaena.\(^{131}\) The name generally used to describe this animal was \(htt\) \((\text{NB III, 203, 16-17: die Hyäne})\) - attested usually in offering lists or scenes\(^{132}\) - though \(htw\), apparently with hyaena determinative, occurs as a toponym.\(^{133}\) Vycichl compared the Egyptian term with Semitic words of similar spelling meaning 'a/to limp'.\(^{134}\)
Chapter 6: Elephant, Rhino and Hippo

A very restricted number of terms for these animals appears in ancient Egyptian texts. During the dynastic period until the New Kingdom, when the animals were encountered by the Egyptians during military expeditions or through foreign tribute, representations of elephants were rare and of rhinos non-existent. The disappearance from Egypt and subsequent rediscovery of rhinos and elephants by the Egyptians led similarly to the disappearance of the original designations and the adoption of new terms for the animals. Hippos, on the other hand, were well known throughout Egyptian history, feared chiefly for the considerable danger they caused to boats on the Nile and noted for their noise, destructiveness and aggressiveness. They were identified with the god Seth and as such appeared as the subject of certain rituals designed to overcome his power. Such rituals were depicted particularly in Ptolemaic reliefs, and various terms with obvious etymologies were used of Seth in this form. Two terms for the female hippo are known only from Ptolemaic texts.

None of these animals now occurs in Egypt, though the hippo (Hippopotamus amphibius L) was still present in the Nile in the 19th century and was mentioned by travellers to the country. The elephant (African elephant, Loxodonta africana (Blumenbach)) and the rhinoceros (there are two African species: the White or Grass Rhino (Ceratotherium simum Burchell) and the Black or Browse Rhino (Diceros bicornis L)) are now confined, in ever decreasing numbers, to sub-Saharan Africa.

Both elephants and rhinos were depicted in the pre-dynastic rock drawings from eastern and western desert wadis studied by Winkler and Dunbar, though the elephant appeared more frequently than the rhinoceros. No representations of rhinos are known between this date and the New Kingdom, when the animal was recorded as a curiosity, together with its measurements, on a stela at Armant. Models of rhino horns were, however, identified from a 1st Dynasty tomb. African elephants, or at least animals resembling these elephants, were drawn until the Middle Kingdom (and there is one drawing of an Indian elephant from a New Kingdom ostracon and another in a New Kingdom tomb painting) though many representations are found only as the determinatives of the toponym abw, Greek Elephantine, modern Aswan. The elephant, or its tusks, almost certainly gave its name to Abu, the
trading post at the first cataract\textsuperscript{16} - Váhala supposed that elephants must have survived this far south in Egypt when the town was named\textsuperscript{17} - though it is also possible that the animals were named after the town, because of its connections with the ivory trade. The inaccuracy and paucity of the drawings would indicate that the African elephant disappeared from Egypt at an early date\textsuperscript{18} and that artists were only imperfectly acquainted with their appearance, in contrast to the hippopotami which were depicted prominently in Old Kingdom scenes of hunting in papyrus marshes\textsuperscript{19} as well as in later reliefs. In Meroitic and Ptolemaic times there seems to have been a renewed interest in the animals.\textsuperscript{20}

In the New Kingdom elephants are mentioned in \textit{Ny}, a state in Syria-Palestine,\textsuperscript{21} and their tusks were imported from Syria, as well as Libya and Kush.\textsuperscript{22} Although the tusks imported from Kush and Libya were doubtless those of the African elephant, those from Syria were probably not, like the elephant hunted by the pharaoh in \textit{Ny}, near the Mediterranean coast. That drawn on the Deir el-Medina ostracon belongs to the Indian species, \textit{Elephas maximus}\textit{ L.} (the appropriate subspecies has been given as \textit{E.m.asurus}) which today does not extend even as far as the western border of India. If the elephant of \textit{Ny} were of the Asiatic and not the African type it would indicate that \textit{E.maximus} was widely distributed throughout Asia Minor in c. 1482 BC.\textsuperscript{23}

The only representation of an elephant-like animal specifically called \textit{3bw} (\textit{Wb I, 7, 15: Elefant}) is at Beni Hasan,\textsuperscript{24} but the creature, which appears among the other fabulous desert inhabitants depicted in this tomb, has only a single horn and no trunk. Brugsch\textsuperscript{25} deduced therefore that \textit{3bw} 'bezeichnet ebensowohl das Rhinoceros als den Elefanten', and that \textit{3bw} meant simply 'Hornträger'. Keimer\textsuperscript{26} compared the Arabic appellation 'Abu karn' (\textit{sic}; the term is \textit{umm al-garn}) 'possesseur d'une corne' but considered that the Beni Hasan representation 'doit être interprétée comme un rhinocéros fantastique'.\textsuperscript{27} The problem of identifying the \textit{3bw} is further complicated by the appearance of a rhino as the determinative of \textit{3bw} on a Middle Kingdom statue\textsuperscript{28} but Störk,\textsuperscript{29} who studied the rhinoceros in the Ancient Near East, followed Brugsch in assuming the term to apply to both animals: 'Was liegt näher als der Gedanke, \textit{3bw} könnte außer "Elefant" und dem Ortsnamen "Elephantine"... auch "Rhinozeros" bedeuten?... Den Grund für die Seltenheit, mit der \textit{3bw} eindeutig das Rhinoceros bezeichnet, darf man wohl darin sehen, daß der Elefant für die ägyptische Kultur immer ungleich interessanter war... Für die
The similar single-horned creature in the 'Weltkammer' at Abû Ghurâb was originally believed to have another name, ʿIrba\(^\text{30}\) (Wb I, 115, 4: ein Tier (Nashorn?)) but Edel, in his discussion of the inscriptions in this temple, read rather ʿIr ʿJbw 'to Elephantine'.\(^3\)\(^1\) The reading ʿIrba\(^3\) is, therefore, to be rejected.

Another word with elephant determinative, hw (not in Wb), was recorded by Fairman from the kiosk of Sesostris I at Karnak; he translated 'elephant'. The word, he suggested, was a nisbe derived from hw 'elephant tusk' - 'it is opposite to quote the analogous English use of "tusker" to describe a grown elephant with developed tusks'.\(^3\)\(^2\)

The elephant appears, therefore, to have been known by the name ʿJbw into the New Kingdom and the rhino by the same name into the Middle Kingdom. Both appear with different names at later dates. The elephant appears on the Pithom stela\(^3\)\(^3\) with the name dnhr and in demotic texts as ʿtnhr;\(^3\)\(^4\) the rhino, hunted by Pharaoh in Nubia and recorded at Armant, as ṣkb.\(^3\)\(^5\) On this word Mond and Myers noted: 'The etymology of the word ṣkb is obscure; possibly it was derived from a Nubian place name, or the local name of the beast'.\(^3\)\(^6\) Störk considered the etymology of the word extensively, putting forward the semito-hamitic root ṣk̲b with various derivatives designating pointed objects (eg nail, thorn) as the prototype of Egyptian ṣkb. The -b ending is common to the names of other wild animals; he compared Egyptian ḏb and ṣḥb. He also mentioned a Somali word šahubu meaning 'whip of rhinoceros hide' which may be associated with ṣkb.\(^3\)\(^7\)

Grdseloff\(^3\)\(^8\) considered that āk̲b designated (one of) the African rhino(s) and ʿIrbi (sic) the Asiatic (Indian?) species on the grounds of the latter's similarity with a toponym in Syria-Palestine, ḫm-n-ʿrbd, in a stela dating to the reign of Amenophis II. This point was further discussed by Keimer\(^3\)\(^9\) who commented that rhinos had occurred only in pre-historic Syria and that Grdseloff's translation of the toponym 'Lac de Rhinocéros d'Antioche' 'constitue une appellation assez bizarre'. The reading ʿIrbd was in any case rejected by Edel\(^4\)\(^0\) as noted above.

Apart from the names applied to Seth and a Fayum deity in hippopotamus form (ḥdt)\(^4\)\(^1\) only two terms were used regularly to designate the hippo. The more common of these is ḏb (Wb V, 433, 14-17;
das Nilpferd). ḫḥb (Wb III, 229, 5-6: das Nilpferd) seems to have a more specialized usage, a number of its recorded occurrences being in the Ptolemaic temple texts, though ḫdb also occurs in this context. 42

In order to draw a distinction between the words it is useful to note that ḫdb occurs in the medical texts 43 - compare from the Pyramid texts an invocation to an illness in the form of a ḫdb 44 - and in other instances where the animal itself is being referred to 45 (eg the term used of the animal’s skin(?)), 46 whereas ḫḥb does not. In two texts, the dream book of the Chester Beatty collection 47 and the Late Period ‘Geographical Papyrus’ 48 both terms appear. In the former dreaming of carving a ḫdbt is interpreted as a good omen; ḫḥb appears in the characterisation of Seth-like men. In the latter the determinative of ḫḥb is drawn pinned down with a knife, which indicates its dangerous nature (cf ḫlt as a determinative of Apophis). This determinative also appears in a text recounting hunting at Moqalla. 49 A further reference to ḫḥb occurs on the Middle Kingdom Stela noted above (see ḫbw) 50 where the hippo-hunting ritual is mentioned. Hippo-spearng is also shown in the scene on the fourth square of senet-boards, 51 but the name of the animal is not recorded. A passage from the Coffin Texts mentions the slaying of a ḫdb 52 as does the tale of the Eloquent Peasant. 53 ḫḥb also appears in the rituals of the Book of the Opening of the Mouth. 54 In these texts there seems to be a distinction between the animal as such 55 and the animal as a hypostasis of Seth; note that in the story of Horus and Seth the latter is recorded as changing himself into a ḫdb. 56

Lacau believed that the name ḫḥbw, meaning 'curved', was derived from the hippos' huge curved teeth. 57 Störk 58 compared ḫḥb 'sickle' and similar words ḫḥb/ḥḥb 'krumm, gebeiegt', ḫḥḥb/ḥḥḥb 'Gekrummtheit, Falschheit', making the name of the animal 'das Heimtückische'. From the writing of ḫḥb with 'tusk'in the Pyramid Texts and with 'horn' (Sign List F18 and F16) in P. Boulaq VI the term would indeed seem to be associated with (some characteristic of) teeth or horns so the above translations appear appropriate.

Ḥḥb has also been associated with the phrase ḫ̱ś ḫḥbw which occurs in the Pyramid Texts 59 and was interpreted as 'calf (ie young) hippopotamus' though ḫwb (III, 229, 15) recorded it separately from ḫḥb, 'hippo', and did not offer any translation. The same phrase is also found in a medical papyrus, 60 two Middle Kingdom texts from burial chambers, 61 the Coffin texts 62 and a Late Period text. 63 Although ḫḥb
is known as a term describing the young of animals other than cattle (eg beš a m3hd), ḥ3bw here should probably be understood differently; Sethe\(^6^4\) translated the Pyramid Text example 'zahnlos Kalbchen' and Breasted\(^6^0\) the medical example 'hungry calf'. There is perhaps confusion here with s3bw 'variegated'; a similar phrase, ḫn ḥ3bw, occurs in P.Boulaq VI. (See Ch.4: Cattle).\(^6^5\)

\(s\) has been equated with Semitic words for 'pig'. Ember\(^6^6\) compared Assyrian dabu 'pig' and modern Arabic khanzi-al-mā' hippo' lit. 'water-pig', and noted that an Egyptian deity with the head and body of a hippopotamus (Tuāris) was sometimes described as ḫrt 'pig'. (See Ch.11: Pigs).

\(^{64}\) Sethe, \(^{60}\) Breasted, \(^{65}\)\(^6^5\) See Ch.4: Cattle, \(^{66}\) Ember.
Chapter 7: Goats

The term Cwt displays a number of determinatives, most frequently a goat or a sheep. Although Cwt appears to denote primarily a class of animals (most closely conveyed by English 'mammal') goats and sheep may have been considered typical of the group '[true] Cwt' in the same way as the gazelle, and less frequently the oryx and ibex, seem typical of 'desert Cwt' (Cwt hist). In one text goats and sheep appear as defined sub-groups of Cwt - 'small Cwt' (Cwt ndst with goat determinative) and 'white Cwt' (Cwt hdt with sheep determinative). (For further discussion of the term Cwt, see Chapter 1: Classification).

The most commonly occurring word with goat determinative is Cnh, divided by Wb into Cnht (Wb I, 205, 11-12 - pre Dynasty 18 spelling) and Cnhw (Wb I, 205, 13-14 - post Dynasty 18). The latter Wb translated 'Ziegenbock? and the former 'Ziege? oder allgemeines Wort fur Kleinvieh?'. The last suggestion was taken up by Helck and Janssen, both of whom proposed that Cnh was a general term comprising both goats and sheep. However, from the numerous instances of Cnh used in parallel with other terms for domestic animals, including sheep, it becomes apparent that Cnh denoted a single discrete species, though 'various (types)' (sbn) were evidently distinguished. This interpretation is further supported by the consistent use of a single determinative with Cnh (Sign List F27 or ) rather than several (as was the case with Cwt).

Cnh sdb ('castrated goat') occurs twice and Cnh should thus perhaps be translated '[male] goat'. However, the 'male' (tly) is specifically named on one ostracon.

That goats were desirable possessions is shown from the frequent mention of the animals, sometimes with their prices, or of goats' skins, both in private records and in lists of booty from foreign lands. Goats also appear in the medical texts and as sacrificial beasts though they are elsewhere recorded as unclean. Goat-herds are occasionally mentioned, and those holding this title may at some time have held military responsibilities.

Th (Wb I, 61, 7: Böckchen) occurs once over a representation of a group of hornless and apparently young goats, and several other times, more or less damaged, in the tomb of Rekhmirë. This would seem to support Wb's translation. In one text, however, Cnh and Th, though
they occur together, are not in the order which would be expected if \( \text{Lb} \) were the younger animal.\(^{21}\) (Nevertheless, in another text\(^{22}\) \( \text{Lb} \) does follow \( \text{Snh} \).) \( \text{Lb} \) and their young (\( \text{ndst} \)) appear in a list of cattle and other animals to be provided for a temple.\(^{23}\) Their position in the list is where goats would be expected, so the primary meaning of \( \text{Lb} \) here is unlikely to have been 'kid' or similar;\(^{24}\) Lesko recently gave both 'kid' and 'goat' as a translation.\(^{25}\) Like \( \text{Snh} \), \( \text{Lb} \) appears in the medical texts,\(^{26}\) and as a beast for sacrifice, perhaps to be identified with Seth\(^{27}\) (cf \( \text{Sr} \) below).

In a hymn to the Nile \( \text{Lb} \) stands in parallel with 'men' as being provided for by Re's creation, and thus appears to designate animals as a class (cf perhaps \( \text{wnt} \) as the class 'animal' but also 'goat').\(^{28}\) Posener translated 'le (bétail) assoiffé',\(^{29}\) but although the translation (cf \( \text{Lb} \) 'thirsty') is appropriate here — the noise (\( \text{hrw} \)) of a herd (\( \text{idr} \)) is compared with \( \text{Lb} \) around a well (\( \text{ädvw} \)) — this sense of \( \text{Lb} \) with goat determinative is not apposite in other contexts.

Pastures for white \( \text{Lb} \) (\( \text{Lb} \) \text{hd} \)) are mentioned in P.Wilbour.\(^{30}\) Gardiner translated 'white goats' but Helck, though at first translating likewise 'Weiße Ziegen',\(^{31}\) later preferred to understand as 'sheep' on the grounds of comparison with the phrase \( \text{wnt} \) \text{hd} \( \text{t} \) apparently with that meaning (see above).\(^{32}\) The phrase \( \text{Lb} \) \text{hd} \) was also noted by Gardiner in a toponym.\(^{33}\)

A papyrus recording a collection of magical texts mentions \( \text{hnw Lb(w)} \) which is translated by Koenig as 'peau de chevreau'\(^{34}\) (for the skins of the \( \text{Snh} \) see above). \( \text{Fr} \) \( \text{Lb} \) also occurs as a personal name.\(^{35}\)

Three more terms with goat determinative were known to Kb: \( \text{Sr} \) (\( \text{Wb} \) I, 208, 10: Ziege); \( \text{wctv} \) (\( \text{Wb} \) I, 279, 7-8: die Ziege) and \( \text{wntu} \) (\( \text{Wb} \) I, 326, 3: Art Ziege), of which \( \text{Sr} \) is the most common.

Like \( \text{Lb} \), \( \text{Sr} \) occurs in offering texts parallel to the Nile goose, \( \text{smnh} \),\(^{36}\) and in an offering list at Medinet Habu.\(^{37}\) (A writing \( \text{Sr} \) in a livestock list\(^{38}\) may be an error for this word). In both the latter cases the words for certain other animals in the list are rare terms — \( \text{Lph} \) in the former (see Ch.11 : Pigs) and \( \text{ew} \) in the latter (see Ch.8 : Horse and Donkey). Despite examples of \( \text{Sr} \) showing a trussed goat as determinative\(^{39}\) (cf the trussed [cow] in \( \text{hrwt} \), a term applied to sacrificial cattle — see Ch.4 : Cattle) the term was not used.
exclusively of beasts of sacrifice as it is attested in the medical texts\(^40\) (\(\text{lh}h\) and \(\text{hrvt}\) do not appear in this context).

The phrase \(\text{ks} (\text{n}) \text{jr}\), which appears in two papyri\(^41\) appears to designate specifically a 'male' \(\text{jr}\) (for \(\text{ks}\) used of male animals see Ch.4 : Cattle). This would indicate that \(\text{jr}\) applied to both male and female animals,\(^42\) though a possible female form \(\text{frct}\) is also attested as the name of a goddess.\(^43\) \(\text{jr}\) also occurs as a toponym.\(^44\)

\(\text{jr}\) is elsewhere recorded as the form taken by a deity,\(^45\) and may, therefore be compared with a late (Ptolemaic) term \(\text{frfr}\) designating the animal of Banebded, god of Mendes (for this term see also \(\text{cmcm}\), Ch.13: Miscellaneous Mammals).\(^46\) This animal was named \(\tau\rho\alpha\gamma\alpha\sigma\) 'he-goat'\(^47\) by classical authors, and it is evident that even by New Kingdom times representations of Banebded, originally a ram, had acquired various goat-like attributes. Note here various Coptic words derived from \(\text{bs}\) (the ram of religious representations) which mean 'goat'. (See further in Ch.12 : Sheep).

As there are no representations of the \(\text{fr}\), and the word does not occur in any text together with \(\text{nh}\), it is difficult to see in what way or to what extent the \(\text{fr}\) was differentiated from the \(\text{nh}\). That it was in some way similar to the \(\text{ib}\) is obvious from the texts where they appear to be interchangeable; that \(\text{ib}\) designates a type of goat rather than merely 'kids' is also evident.

\(\text{frtv}\) is attested in the medical texts, where it is the most common of the four terms discussed above.\(^48\) Elsewhere it appears independently\(^49\) or contrasted with types of cattle,\(^50\) which is of little help in determining its precise meaning. Osing supposed it to be related to a word \(\text{fw}\) (not in \(\text{wh}\)) 'einzelnes Stück (Vieh)'.\(^51\)

\(\text{wndw}\) likewise appears independently\(^52\) or together with terms for cattle (especially \(\text{iw}\)).\(^53\) \(\text{wndw}\) goats are depicted in various Old Kingdom tomb scenes; some show long widely everted wavy horns,\(^54\) some are hornless animals\(^55\) and others have short horns like those of the \(\text{cnhw}\).\(^56\) Janssen is wrong, therefore, to state that \(\text{wndw}\) applies to 'artificially dehorned animals'.\(^57\) The term does not survive beyond the Old Kingdom, but it is interesting to note that following its disappearance a term for cattle with the same spelling becomes evident. This term too is closely associated with \(\text{iw}\) (see Ch.4: Cattle). Whether \(\text{wndw}\) was adopted as a cattle term as \(\text{cnh}\) became more commonly
used for 'goat' (šnh is rare in Old Kingdom inscriptions), it is not possible to say.

Roquet translated wndw 'chèvre mambrine', presumably for the Palestinian variety of the domestic goat or Mamber (Capra hircus mambrica). Zeuner believed the ancient Egyptian goats to have been of a type possibly related to the Wild Goat, C. aegagrus Erxleben, and not the modern Mamber. (On the wild goat, possibly called ïmt, see Ch.2: Antelopes and Similar Animals).

Wšl.w (Wb I, 369, 8: Masttieres), though generally having a [cow] determinative, is also applied to goats (not as Wb 'von Antilopen u. Gazellen' - only goats are to be seen in the register accompanied by the inscription in question).

Shisha-Halevy also recorded a loan-word, šṭm (not in Wb), with the meaning 'goat'.

Chapter 8: Horse and donkey

Horses (*Equus caballus* L) appeared in Egypt during the Second Intermediate Period, to judge from the Semitic loan-words adopted to describe horses and chariots and later imports of horses from Syria Palestine - from Asiatic immigrants who settled in and usurped the throne of Egypt. The Egyptians seem to have seen horses first in pairs since they gave to them the name htr (the verb root meaning 'tie'), which had previously been applied to yokes of oxen. A second name for the horse was derived from the plural form of the Semitic term - ssmt from susim 'horses'. In Egyptian representations horses are almost exclusively seen in pairs harnessed to chariots; single horses with riders are very rarely depicted. Horses were always closely associated with the military and never used for ploughing or transport as were donkeys and oxen which would indicate that they were first encountered in battle. However, the Pharaoh used them for recreation, especially for hunting.

Wb recorded htr (Wb III, 199, 11-200, 12: Pferdegespann, Pferde) and ssmt (Wb IV, 276, 18-277, 7: das Pferd) with different translations but Donner believed that both words were adopted with the meaning 'team of horses' and that both were subsequently used for the single animal (cf Coptic ZTo 'horse'). The resulting redundancy of one of the terms would explain why only one survived into Coptic. Htr occurs in the texts more frequently than ssmt and was incorporated into more standard phrases (hr htr, *r* (tpy a hm.f), *t* nt htr - compare the less common r/hr htr ssmt of Ramesside texts which no doubt favoured its survival over that of the loan-word. (Note that writings without phonetic complements are not considered here).

In certain texts both htr and ssmt are mentioned in connection with chariots (mrkbt, wrrt), or as 'yoked' (nhb), like oxen. Since no representations are known of a lone horse pulling a chariot, both terms would seem to designate a pair of horses. This also appears to be the case in a Dynasty 18 stela, where numbers of htr and ssmt equal the numbers of chariots mentioned. In a Dynasty 19 text, however, the number of htr mentioned is twice that of the number of chariots. Htr here apparently means a single horse and since in a text of similar date at Medinet Habu htr and ssmt are used of the same horses (compare other Ramesside texts giving ssmt and htr as variants in different versions of the same text) this would probably be true of ssmt also. This meaning is confirmed by the fact that subsequently a new term rks
Gespann (von Pferden) was used in conjunction with htr to express 'a team of horses', as did the phrase ḫn htr (Wb III, 200, 5: Gespann). Htr and asmt seem from other texts to have been equivalent terms, though htr has also been translated 'riding'. In the Rosetta Stone demotic htr translates hieroglyphic asmt.

Drawing a precise temporal dividing line between the uses of asmt and htr as '(team of) horses' and as '(single) horse' is more difficult. In some Dynasty 18 texts the words seem to be used of individual 'horses', not merely 'teams of horses', and in one case asmt may designate a single horse. In certain later texts, however, the words still appear to have the meaning 'team', rather than 'horse'. Thus it is possible to conclude merely that the words might have either meaning in earlier (Dynasty 18-19) texts and should be translated according to context.

Caminos believed that htr was a broad term, comprising both horses (asmt) and chariots (wrrt). Several points militate against this. The text he was studying seems to place in clear parallel the words asmt and htr, and the term for chariots, wrrt and ḫnng. The appearance of htr together with wrrt (where horse(s) and chariot seem to be contrasted) is well attested (see above). A number of texts mention food for htr, which must therefore denote horses alone, and htr is listed in parallel with other animal names as if it were no more than a simple species designation.

Horses appear to have been noted for their valiance, eager speed and impatient tramping, and on the battlefield the king's horses were compared to a falcon scattering small birds. An army compared to a horse (htr) was thus presumably eager to throw itself into battle. Horses were kept in stables or let loose in the fields. They were looked after by overseers (Imy-x asmt) or herdsmen (mn[w htr]).

A few more words for horses are known and P. Anastasi IV lists a number of these - ġw3, nfrw, msw, ḫbr and hmt in addition to htr. Hmt is a designation for any female (human, mammal or bird) and is applied to horses in the Piankhi Stela (for further discussion see Ch.4: Cattle). The preceding term ḫbr (Wb I, 63, 15: Hengst) may be compared with Semitic abyx 'mighty, valiant'. It is also known in a tribute list from Dynasty 18 in the sequence asmt, msyt nt asmt. ḫbr,
rn.53 Msw and msvt are obviously connected with ma 'be born'; ma is used primarily of cattle, but also of other newborn creatures. Gliw (Wb V, 159, 9: Art Pferde) is attested in two other texts. In one it is mentioned in a stable (m p3 lýv),54 in the other it designates the animals from which smt are chosen.55

Nfrw (Wb II, 261, 15-16: allgemein Pferde, auch bes. die Fohlen) appear elsewhere parallel to smt56 (written smm) and as a variant of htri57 and in the title sm htr nfrw.58 Nfrw is also a term applied to cattle. The same is true of rnp from the Dynasty 18 tribute list (other attestations recorded by Wb are limited to epithets of Montu in the Ptolemaic Period; another reference noted in Wb was restored htri by Sethe).59

It is tempting to see in the Anastasi text a parallel with the Medinet Habu cattle list (see Ch. 4: Cattle) which appears to order the animals from most to least mature. Nfr would thus be the most adult and ms the most juvenile. A comparison may also be made between giul and the ow which appears as a cattle term, apparently as a variant of ng.60

The ancient Egyptian name for the donkey Equus asinus L,61 (3 var. Jt,62 (Wb I, 165, 6-11: Esel) with its feminine counterpart Jxt, var. Jxt63 (Wb I, 165, 12: Eselin), Coptic Ciw,64 is undoubtedly onomatopoeic.65 (Note that female donkeys were also called Jmt.)66 This type of word was found in other semitic languages to describe horses - Ember67 compared Assyrian urq 'horse' and Hebrew Cavir but 3 is not necessarily related to these.68 In addition to occurrences of the word with donkey determinative,69 the meaning of the term is proven by its appearance over pictures of the animal.70

Donkey herds were termed skt71 (Wb IV, 209, 9: Herde von Eseln die Lasten tragen u. ä) and donkey foals skt72 (Wb IV, 315, 12: Eselsfüllen), Coptic Ch6.73 Skt is often found in the phrase 'a she-donkey with her foal',74 though also independently.75

Donkeys are frequently mentioned in the company of other domesticated animals76 and are often represented in agricultural scenes.77 They were used for ploughing78 and threshing,79 and as the principal beast of burden.80 The riding of donkeys is not depicted, and only foreigners or a sick man are mentioned as riding them.81 They pulled chariots (mrkbt82 wrrvt),83 and a carrying-chair is shown supported by donkeys.84 Their hide was utilised for water-skines,85 and
sieves were made of their hair. Many of their parts appear in the medical texts.

The donkey was patently a most useful beast and this accounts for the vast number of references to donkeys on ostraca. These record transactions of sale and loan and the return of the animals to their owners. Others preserve cases of litigation arising from these transactions or the death of the donkey while out of its owner's possession. In one case the donkey was found to be pregnant. Large numbers were in possession of the state and the temples as well as private individuals.

Despite their usefulness they were not so valuable as cattle; even young cattle fetched the same price as a donkey. In livestock lists donkeys ranked after cattle and sometimes even after the cheaper goat. Nevertheless they were regarded as a symbol of wealth and are mentioned among the tribute of foreign lands.

In literature donkeys came to represent stubbornness, ill-temper and stupidity. 'Donkey' was a term of abuse and occurred in a favoured obscenity. Donkeys had a rôle in magic and in religion. This was most notably through their association with Seth (see also h\textsuperscript{v}, h\textsuperscript{w} below) though they are also mentioned in the Book of the Dead, and various demons in the underworld had donkey heads. A donkey might constitute a good omen in a dream.

Wild donkeys as well as domesticated forms were known to the Egyptians. They are shown infrequently in hunting scenes and it is likely that the \textit{\textsuperscript{1}3 h\textsuperscript{mw} (Wh IV, 470, 5: wilder Esel) of a Dynasty 18 stela recording the Pharaoh's hunting exploits in Syria-Palestine refer to such animals.

Three other words appear to have the meaning 'donkey, ass'. The first, \textit{\textsuperscript{1}w (Wh (IV, 4, 3, 16: Esel), occurs only once in a list of domestic animals in a tomb at El-Kab, and may simply be an erroneous writing of \textit{\textsuperscript{1}3 h\textsuperscript{mw}. It should be noted that the preceding word, determined with a goat, written \textit{\textsuperscript{1}k (possibly for \textit{\textsuperscript{1}k) is not the most usual term for this animal (see Ch.7: Goats) so the reading \textit{\textsuperscript{1}w 'donkey' cannot be ruled out. Further support for the reading \textit{\textsuperscript{1}w was recognised by Junker, who noted the head of a donkey in a writing of a word associated with the handling of cloth, \textit{\textsuperscript{1}w\textit{\textsuperscript{1}w (Wh IV, 75, 16: zusammenballen öä; Wh IV, 75, 17: Bausch, kleiner Ballen o.ä. von
Leinen (zum Auswischen einer Wunde, als Polster)).

The second word, ḫmr (not in Wb), appears to be a loan from Semitic, being written in the 'syllabic orthography'. It occurs in the phrase 'you drive your subordinates like ḫmr',¹¹² which was compared by Ward¹¹³ with the very similar sentence from P. Chester Beatty V: 'He (the soldier) is driven like a donkey'.¹¹⁴ Ward noted a number of similar Semitic words: Ugaritic ḫmr, Hebrew hemōr, Arabic himār and Akkadian ḫmēru meaning 'donkey' and Ugaritic ḫmr and Akkadian śmēru meaning sheep. He concluded that Egyptian ḫmr, meaning 'donkey' was borrowed via Akkadian; this language was known by scribes of the Amarna period and it was then, presumably, that the term was adopted into Egyptian.

Ḫy (Wb II, 483, 15-17: als Bez. des Seth) occurs together with the ḫfn at Philae, among things which may not be brought into the temple.¹¹⁵ ḫfn is attested elsewhere as a term for dog (see Ch. 5: Dogs and Similar Animals) so ḫy was presumably denoted a real animal. It has a determinative in the form of a recumbent donkey pinned down by a knife to render it harmless.

Ḫw (Wb II, 484, 2: Substantiv (wohl ein böses Tier)), written with the determinative of a donkey in the Coffin Texts,¹¹⁶ is often attested as a name for Seth.¹¹⁷ It was compared by Ward¹¹⁸ with various other Egyptian words - ḫwt 'to shout', ḫhwv 'to ring in the ears (noise)', ḫhtv 'tinnitus', ḫhwv 'to become hoarse from shouting' and demotic ḫhw 'to bray (ass)'. In one case ḫw ('Seth) appears in parallel with the name ḫd-hrw, rendered by Ward: 'one who repeats a noise aloud',¹¹⁹ and may thus be supposed, especially in view of the words noted above, to have a similar meaning. In two Coffin Text passages the voice (hrw) of the ḫw is mentioned,¹²⁰ which would also support this interpretation. Prior to the Coffin Texts ḫw appears in the Pyramid Texts (ẖst ḫwt - Ward translated 'a braying jenny'),¹²¹ in a variant text the word is determined by a pair of ass's ears.¹²²

Ḫw may thus be interpreted 'brayer', a somewhat different appellation from the zoological term ẖ 'ass' (cf zoological ẖn and descriptive ḫt – see Ch. 10: Monkeys). This would explain the use of the donkey's head to write hrw 'day',¹²³ a practice also discussed by Ward. He postulated the existence of a late Egyptian word ḫw (related to Demotic ḫhw) meaning 'ass', from which the writing of hrw (then pronounced hw) was derived.¹²⁴
The final word to be considered here is ptr, a hapax from an ostracon listing the herdsmen of various types of animal - cattle, goats, sheep, pigs, donkeys and ptr. 125 From its writing it seems to be a Semitic loan-word; because of this and its closeness in the list to donkeys Kitchen 126 likened it to Hebrew pered, f. pirdā 'mule' (a mule is a sterile horse-donkey cross). 127 Prd also occurs in Ugaritic accounts of a date similar to that of the Egyptian ostracon. 128 Bohairic ṭεμ̣ω̣ям (derived possibly from Akkadian da(m)dammu) has also been considered to designate the mule, 129 but this term is not (yet) known from an earlier period.
Chapter 9: Lions and Other Cats

In his listing of the animals of Egypt Flower noted, from the cat family, the Cheetah (Acinonyx jubatus Schreber), the Caracal (also known as the 'Desert Lynx' or 'Caracal Lynx') (Felis caracal Schreber) and the Leopard (Felis (Panthera) pardus L). Whether any of these remain in Egypt is questionable. Flower also mentioned three species of wild cat as inhabitants of Egypt - the Libyan or African Wild Cat (Felis libyca Forster, now considered to be a sub-species F. sylvestris libyca), the Jungle Cat (Felis chaus Guldenstaedt; the subspecies Felis nilotica De Winton, the Egyptian Jungle Cat, was given by Hoogstraal) and the Sand or General Marguerite's Cat (Felis margarita Loche) - in addition to the domestic variety (Felis catus L).

Kingdon supposed that it was the African Wild Cat (Felis libyca) which was domesticated by the ancient Egyptians and that this too, via export, may have been the ancestor of European domestic cats. Morrison-Scott noted the similarity between cats mummified by the ancient Egyptians and Felis libyca Forster, and, like Kingdon, presumed that the Egyptians' domestic cat was derived from this species. The Egyptians' cat he recorded as Felis libyca bubastis Ehrenberg. The species Felis chaus has also been identified from mummified remains, though it may not have been domesticated.

A number of other species should also be taken into consideration. From representations and texts it is apparent that the Lion (Felis (Panthera) leo L) occurred in ancient Egypt; its worldwide distribution has contracted greatly even since the last century. The Serval (Felis serval Schreber) and the Golden Cat (Felis aurata Temminck) of East Africa may also have occurred in Egypt in the past. The serval is now confined to Africa south of the Sahara, but, like the Zorilla (Ictonyx striatus Perry), the range of which is similarly restricted today but which has been identified from Old Kingdom representations (see asfnw), it may have originally extended farther north.

The meaning of mst (Wb II, 11, 14-19: der Löwe), female mlt (Wb II, 12, 6: die Löwin), is clear from its lion determinative (Sign List E22) and is confirmed by the occurrence of the name together with pictures of the animal. The term may be complemented by hst (Wb III, 161, 1-10: grimmig, wild) which Wb recorded as 'Bez[eichnung] des Löwen' (Wb II, 12, 2; mlt hst : Wb II, 12, 7: die Löwen). There appears to have been in Egyptian a similar term st meaning 'animal'
(see Ch.1: Classification). Loret believed m3 and m3'i in all cases meant simply 'animal' and that juxtaposed terms then differentiated between types of animal. M3 has he thus translated 'fauve terrifiant' and m3 hq (oryx) 'fauve blanche du désert'. Texts in which both m3 and m3'i appear would, however, indicate that a clear distinction was made between the terms, though where the word appears alone, especially in the phrase 'm3(i/y) of the desert' it can be difficult to decide which is meant.\textsuperscript{20} De Wit assumed that m3 has had no greater significance than 'lion'.\textsuperscript{21}

\textit{Wb} recorded the feminine forms mait and mait h•st only as designations of goddesses,\textsuperscript{22} and not as applying to the lioness as an animal. This may be accidental, since Coptic preserves the obviously related term M•Y\textsuperscript{23} (with variants, M•I, M•I, M•I CD 160b: 'lioness' under the entry M•Y: 'lion') with this meaning.\textsuperscript{24} There existed in Egyptian another word translated 'lioness', \textit{rbv}\textsuperscript{25}. The term, together with demotic \textit{lby} (DG, p.262: 'der Bär... Auch für Löwe') and Coptic \textit{la•goi}, has been compared with semitic \textit{lby} 'lion', and is also similar to Arabic \textit{labwah} 'lioness'.\textsuperscript{26} It may also have been related to \textit{rw} (\textit{Wb} II, 403, 8: der Löwe), which appears to have been an old term for the lion, or to \textit{rw-3bw} (\textit{Wb} II, 403, 9: Über dem Bilde eines Löwen).\textsuperscript{27} The figure of a lion was used to represent phonetic \textit{r(w)} (Sign List E23). It was distinguished from m3l (Sign List E22) by its recumbent posture - though m3l does on occasion appear to be written with a recumbent lion,\textsuperscript{28} no full phonetic writings of m3l occur with recumbent lion determinative.

As noted by \textit{Wb}, \textit{rw-3bw} was originally used of the figure of a lion, and the phrase has been taken as an epithet of a deity, 'lion tacheté'.\textsuperscript{29} (Cf on \textit{lby} below.) \textit{Rw} is seldom attested elsewhere,\textsuperscript{30} usually appearing only as \textit{rty}, the 'lion-pair' (\textit{Wb} II, 403, 10-11: das Löwenpaar),\textsuperscript{31} also translated: 'celui à l'aspect léonin'.\textsuperscript{32}

That \textit{rbv} means 'lioness' seems (from the context in which it occurs) inescapable, but it should be noted that the use of entirely different terms for male and female of a particular species is very uncommon in Egyptian and suggestions to the contrary can usually be disproved (see hbn, \textit{imst}, \textit{kvky}). The pintail (\textit{A.acuta}) does seem to constitute an exception, since both \textit{hp} and \textit{st} appear to designate the bird, \textit{hp} the drake and \textit{st} the duck, though \textit{st} is by far the more common term and was applied to the males as well as the females (see Ch.15: Waterbirds).
Wb also recorded another possible loan from Semitic designating the lion: ḫr (Wb I, 106, 4: ob "бли, Löwe?"). Unfortunately, the word occurs only once in a rather obscure context; whether it is to be translated 'lion', or, as others have done, 'sheep' or 'lamb', must remain open to question.

A number of other terms in Wb are recorded as designating lions, for example ḥw, ṣḥw, ḥmḥ, ḥw, ṣḥm, ṣḥ, ṣḥw, ṣḥm, and ḥṃt with lion determinatives appear as epithets of deities. These words are attested only from Ptolemaic texts, and are, therefore, not discussed here.

The lion (m3l) appears a number of times in the medical texts and was mentioned as being hunted and tamed - it might also accompany the king into battle. On certain days of the year lion's meat was forbidden (which would suggest that it was sometimes eaten and that lions were not merely hunted for sport) and a dire destiny was predicted for lions which ventured abroad on other fateful days. The lion was feared, both by man and other beasts; it appears in a proverb as jealous of its property, not to be crossed and as an ill-tempered beast. It was, with the frog, a symbol of resurrection and watchfulness and in the Book of the Dead the deceased was identified as a lion, perhaps for those reasons. M3l was also applied to figures of lions (cf Wb II, 12, 1: Löwengestaltiges Bild des Königs, sog. Sphinx) and was used as a personal name.

By far the greater part of references to m3l and m3l ḥ3l take the form of similes. Gods, kings and ordinary mortals were described as, or having the attributes of, this noble beast (note that some examples may be read ṭw). Amenophis III was particularly closely associated with the lion and a lion sometimes appears in the cartouche of his prenomen with the reading nh. Lions are depicted on scarabs together with kings' names and kings' names appear on statues of lions. Lion heads and legs were integral parts of the decoration of the royal throne and the king's residence was described as a lion.

Certain of the names attributable to the other big cats are found in Old Kingdom clothing lists and similar contexts: b3 (more often b3 ṣm) (Wb I, 415, 4-6: Panther; cf 7-11: Leopardenfell), ṣḥrt and ḥb (for ḥnb) (not in Wb). These terms have been identified as naming the leopard (Felis (Panthera) pardus), the cheetah (Acinonyx jubatus) and the caracal (F. caracal) respectively. All appear named in Old Kingdom
tomb scenes, the latter in the Giza mastaba of 'Isst-mr-ntr, 60 b3 and ntrt in the mortuary temple of Niuserre 61

At a later date the leopard and cheetah seem to have been regarded as 'northern' and 'southern' varieties of the same animal, 62 written sbv (Wb I, 7, 11-14: Panther), determined occasionally with an animal with bowed head. 63 This hieroglyph appears once as the name of an item of clothing, 64 and therefore presumably replaced the older sign from the clothing lists and Niuserre scene (Sign List F9). A big cat with bowed head is called sbv 6m in the temple of Hatshepsut at Deir el-Bahri. 65 By contrast the pair of creatures depicted below it called sbv mh are more slender, with longer legs, and hold their heads up (unlike the sbv 6m they wear collars). In this they resemble old representations of the ntrt, and are therefore to be identified as cheetahs.

Sbv alone could apparently also be used for cheetah 66; the facial markings of cheetahs (dark lines running from the eyes down the cheeks) which appear on the sbv mh mentioned above are also found on skins marked simply 6m sbv (same scene). 67

The skins of these animals were mentioned among tribute from foreign lands, 68 and as a traded commodity. 69 They were worn by sm-priests 70 (a reason for this is offered in P.Jumilhac 71), other priests, 72 Seshat, 73 and the deified Hatshepsut. 74 The skin of an sbv is also attested in the 'Song of the Harper' 75 and in the medical texts, as is its dung; 76 their claws are mentioned in the Book of the Dead. 77

From the Old Kingdom and Middle Kingdom representations mentioned above it may be assumed that the leopard and cheetah were indigenous to Egypt at those dates. The New Kingdom representations from Thebes show the animals among tribute from Nubia, as also seems to be the case in P.Ch.B. IV. 78 A New Kingdom text also mentions sbv in Syria-Palestine. 79 This might indicate that their numbers were on the decline in Egypt; however, the sbv often appears in the imagery of New Kingdom texts, particularly when describing the king in battle 80 or those about to wreak vengeance on their adversaries, 81 so they were clearly not lost from the Egyptians' minds. They may also have been hunted in Egypt at that date 82 and to dream of them was considered a good omen. 83
An etymology for ʒby was offered by Müller\textsuperscript{84} who translated the word literally as 'das bunte Tier' (he compared ʒbt 'buntes Zeichen, Mal', ʒb 'bunt', not in Wb). Edel rendered the name of the cheetah, nτττ,\textsuperscript{85} as 'Göttin' or 'die Göttliche'; this was followed by Westendorf.\textsuperscript{86}

Another term for a member of the cat family is partially preserved in the temple of Niuserre\textsuperscript{87} all that remains of the name is ...3 with recumbent lion determinative, possibly to be read rwm. The animal's head is lost, but it has a big-cat-like body. Its shortish tail indicates that it could be the Serval (cat) (Felis serval Schreber). (See above on this animal).

Wšt and wšt, both of which appear in the Coffin Texts,\textsuperscript{88} the former with šষ determinative, the latter determined by ꜝ, were translated 'un félin' by Meeks. Since the words are not attested elsewhere this must remain a suggestion.

Míw (Wb II, 42, 1-3: der Kater), fem. mvt (Wb II, 42, 4-7: die Katze), Coptic ɛmow,\textsuperscript{89} was the unmistakeably onomatopoeic name for the cat.\textsuperscript{90} Störk wondered whether míw did not embrace the Serval and Jungle Cat as well as the domesticated cat,\textsuperscript{91} but a possible term for the Serval has been suggested above. That a man could be described as 'smaller than a cat and bigger than a guenon',\textsuperscript{92} indicates (unless this is a mistake) that domestic cats could be quite large, as might be expected if they were derived from F.sylvístrís.\textsuperscript{93}

Cats appear in some texts in conjunction with mice,\textsuperscript{94} and also seem to have been considered an enemy of snakes.\textsuperscript{95} In this guise the cat was identified with Rê as he battled with Apophis,\textsuperscript{96} and is sometimes mentioned among the familiars of Seth.\textsuperscript{97} Harakhti was addressed as 'the cat',\textsuperscript{98} and 'she-cat' was applied to Hathor\textsuperscript{99} and other divinities.\textsuperscript{100} Cats replaced lions as the animal sacred to Bastet and were particularly revered in the Late Period.\textsuperscript{101} The cat is also mentioned in a dream-interpretation text,\textsuperscript{102} in a mythological text\textsuperscript{103} and a magical text; in the latter the prescribed inscription on papyrus is to be hung around its neck.\textsuperscript{104} A spell for the enchantment of a cat is recorded in the Metternich Stela, though the lion determinative of the word may explain it as an error for mšl.\textsuperscript{105} The wailing (rmw) of a cat is mentioned in a further text.\textsuperscript{106}
Although no representations of cats are known from the Old Kingdom, the personal names pš, my, and mvš are attested at that date and continued to appear into the Late Period.

Despite the frequent appearance of the parts of the cat (both male and female) in the medical texts, their possible use as a hunting animal or as a retriever during fowling expeditions and their occurrence as pets they do not seem to have been greatly prized. They are only once mentioned in tribute lists, less frequently than are dogs, and even guenons, which seem to have had merely decorative appeal.
Chapter 10 : Monkeys

The monkeys which today inhabit African regions closest to Egypt are the vervet monkey (Cercopithecus aethiops L), the patas monkey (Erythrocebus patas (Schreber)), the olive or anubis baboon (Papio cynocephalus anubis L, sometimes regarded as a distinct species P. anubis Cuvier), the hamadryas, desert, or sacred baboon (P. hamadryas L) and the gelada baboon (Theropithecus gelada (Rüppell)).

It is abundantly clear that the ancient Egyptians were well acquainted with the hamadryas baboon. It was accurately and frequently represented and was prominent in religious and mythological thought. It generally bore the name k*n (see further below).

Two other monkeys represented by the Egyptians were named g*f and kykv. From the general shape and bearing of the animals it is clear that the first was a guenon (the vernacular name of the genus Cercopithecus) and the second a baboon (Papio). In neither case, however, is the colouring depicted in the ancient sources entirely consistent with the monkey species which, on zoological grounds (see above), are the most likely to have occurred in ancient Egypt. The Egyptians' guenon is shown in coloured representations with red hands, feet, face and rump whereas C.aethiops has a sooty black skin and very noticeable bright blue scrotum. The colouring of the fur, a greyish green, is, however, consistent with C.aethiops. The animal with the name kykv is depicted with a dark green coat like that of P.c.anubis, but again has red extremities, although the only baboon with pink skin is the hamadryas. It is shown without pale fur on its underside, however, like P.c.anubis and unlike P.hamadryas. The conclusion that kykv named a sub-group of P.hamadryas is, perhaps, attractive. Nevertheless, such an identification cannot be accepted without reserve. The bones of anubis baboons have been identified from Egyptian mummies; the general coat colour of the kykv accords with that of the anubis baboon and it is evident from representations of the vervet monkey (which was kept as a pet and must, therefore, have been well known) that inaccuracies in pictures did occur.

Given the very similar distribution of C.aethiops and E.patas over the northern savannah belt in Africa it is surprising that E.patas was not equally commonly depicted by the ancient Egyptians. Vandier d'Abbadie noted two species of cercopithecine monkeys, though with
somewhat garbled names. Her 'cercopithèque griseo-viridis Aethiops' is presumably C. aethiops; her 'cercopithèque Ruber' is unidentifiable and in any case (from the description) probably not E. patas. It may be that the otherwise unidentified kirv (see Ch.14) designates this monkey. The kirv was imported from Kush and could dance and be taught to recognize speech, all of which call to mind the patas, which Hill referred to as the 'dancing red monkey'.

Störk recently put forward the proposition that the gelada baboon (given the vernacular name 'baboon' because of its long face rather than any close relationship to the genus Papio) may have been known to the Egyptians, or at least to the inhabitants of Herœe in the Greco-Roman period. The suggestion rests on the identification of the 'Sphinx' monkey mentioned by Agatharchides and Pliny and stated to come from 'Ethiopia' (ie from near Herœe where the Ptolemies captured elephants) and near the island of Artigula, somewhat north of Napata, as the gelada. Assuming that this identification and the reports of locality are correct this would indicate a more northerly distribution of T. gelada than at present. Störk does not give any references to earlier Egyptian descriptions or representations of this animal though an ostracon from Amarna may show this monkey and it is possible that one of the very rare terms which appear to designate monkeys may refer to this species (see below).

As indicated above no monkeys are present in modern Egypt and it is difficult to establish from the ancient records when they disappeared from that country. Baboons appear in rock drawings from upper Egypt/lower Nubia and the mountainous terrain of upper Egypt would seem an ideal habitat for the cliff-roosting hamadryas. Baboons and guenons were depicted in the Old Kingdom as domesticated animals and in the Middle Kingdom apparently in the wild also. By the New Kingdom, records indicate that they were imported though naturally this does not of itself mean that they had ceased to exist in Egypt (cf the import of tsm, tiv, sby etc.); the sharp decrease in the number of representations of monkeys after this period, as noted by Vandier d'Abbadie, may indicate that they then became less common.

As mentioned already the most common appellation of the hamadryas baboon was ïn (Wb I, 41, 5-8: Pavian), feminine ïnt (Wb I, 41, 9: der weibliche Pavian). A number of variant forms are known: ïnr (Wb I, 192, 15: Pavian), ïnw, ñnv, ñn, ñnñ, ñññ, ññ (Wb I, 170: Pavian), ñv, ñññ, ñññw, ñññ, ññ, ññ, ññw, ññv, plural ñnv, ññññw, ññw.

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This variety of forms seems intended to convey a sound, perhaps the animal's cry, and indeed $\text{l} \text{nw}$ is attested with the meaning 'a cry' or 'wail'.

The term for this baboon survived into Coptic as $\text{ NN(S), } \text{EN(B), ANA(O)}$ (CD 66b: 'ape') where it is recorded as the form taken by Thoth. This echoes ancient descriptions and representations of Thoth, the patron of scribes and recorder in the scenes of the judgement of the dead, as a baboon. The deities Hedjwer, Baba, Isden or Isdes and certain forms of Khons were also portrayed as baboons.

The hamadryas was associated in particular with the sun-god. Its habitual morning and evening journeys between sleeping places and feeding grounds with the accompanying noisy activity were interpreted as, or came to represent, a welcoming of or valediction to the rising and setting sun. Baboons are often depicted with their arms raised in a gesture of adoration towards the sun's disc and in the texts are said to foretell (anticipate?), praise, sing to and dance for the god. In this context they may be termed $\text{htt}$ (Wb II, 504, 4: Art Pavian) or $\text{lmv-htt}$ (Wb I, 74, 18: Bez. der Affen, die zur Sonne beten) as well as $\text{ln}$. $\text{htt}$ too seems to be an onomatopoeic term describing their cries.

A number of other terms applied to baboons are known largely, if not solely, from religious texts, though some (e.g $\text{bnty}$) are quite common in other contexts. A group of eighteen are known from certain tomb scenes in which the baboons depicted are described as 'the gods who open for the great soul' and 'the gods who praise Re when he enters the underworld'. The names seem to have been considered in sets of three:

$\text{ib-t} \text{54, ib-ib-t} \text{55, knw} \text{56 (once kknw);}$
$\text{bnty} \text{57 (Wb I, 464, 9-12: Art Pavian; var. bnw, Wb I, 458, 6: Pavian),}$
$\text{f1} \text{58, dhnh} \text{59 (Wb V, 607, 2: Art Affe);}$
$\text{hkn-m-ba} \text{60, b3} \text{61, and an unnamed baboon;}$
$\text{wn-t} \text{63, b3-t} \text{64, mn-r} \text{65;}$
$\text{lmv-k3(r)} \text{66, bnty-t3.} \text{67, hnn} \text{68;}$
$\text{htt} \text{(Wb ref above), ptt} \text{69 (Wb I, 500, 6: Bez fur Pavian) and hsv.70}$

The significance of some of these names is obvious (see relevant footnotes). The absence of $\text{kn}$ itself from this group of words is noteworthy. This term seems, at least prior to Ptolemaic
inscriptions,\(^{71}\) to be restricted to the actual animal, thus corresponding to the binomen \textit{P. hamadryas}, whereas the other names appear to be epithets, derived from the animal's appearance and behaviour.\(^{72}\)

Baboon and sun god are mentioned in even closer association in some texts. The 'baboon with the strong name' is recorded in parallel with the \textit{hwnt} which defeats Seth and his companions, the enemies of Re.\(^{73}\) Baboons accompanied the solar bark\(^{74}\) - cf their adoration of the sun, mentioned above - and Re' himself was called 'baboon of the underworld'.\(^{75}\)

A baboon seven cubits high is mentioned in the Harris magical Papyrus\(^{76}\) and eight baboons 'in the open court' (Theban deities) in P. Bologna 1094.\(^{77}\) A 'great baboon who eats the gods' appears in the Coffin Texts,\(^{78}\) but deities are also said to live off baboons' entrails.\(^{79}\) The deceased pharaoh's clothing included items of baboon hide.\(^{80}\) In the Pyramid Texts baboons are recorded as being killed by, and themselves killing, a \textit{knmt} animal,\(^{81}\) and \textit{hkh} (like \textit{knmt}) is attested as the name of a constellation.\(^{82}\)

The vervet monkey was known by the name \textit{gIf} (\textit{Wb} V, 158, 12-16: Art kleiner Affe, Meerkatze), fem. \textit{gIft} (\textit{Wb} V, 158, 17-20: Äffin, weibliche Meerkatze) with variants \textit{awf} (\textit{Wb} V, 160, 9: Nebenform zu \textit{gIf} 'Meerkatze'), \textit{gf} (\textit{Wb} V, 166), \textit{gIft} and \textit{gIfy}.\(^{83}\) Many representations of this monkey are named.\(^{84}\) The term has been compared with various similar Semitic words: \textit{Wb} offered Hebrew \textit{gÖp};\(^{85}\) Klein\(^{86}\) compared in addition Syriac \textit{awp}, Mandaic \textit{aupa}, Sanskrit \textit{kapi}, Middle Persian \textit{kapi}, Armenian \textit{kapix}, Greek \textit{kαπιος/καπιός} and Neo-Babylonian \textit{paqû}, glossed \textit{g-u-n-pi}.\(^{87}\) Since the latter is recorded in various texts as the name of an animal from Egypt\(^{88}\) Klein suggested that the Semitic words were loaned from the Egyptian.\(^{89}\) He also compared the Akkadian \textit{paqû} with Berber \textit{abagu} / \textit{bug} noting that 'these in turn may go back to an ancient African term for "monkey"'.\(^{90}\)

The vervet monkey, too, had a role in religion and mythology though much more restricted than that of the hamadryas. It also was associated with Re' who is described as 'he who is over his \textit{gIf}'\(^{91}\) and with the dwarf of heaven (the aged Re) who is described as 'having the face of a \textit{gIf} with the hairs of a \textit{hkh}', whose 'appearance is that of a \textit{gIf} after reaching old age'.\(^{92}\) In certain instances there seems to have been some confusion between the two types of monkey.\(^{93}\) The \textit{gIf} also appears
independently; the female is mentioned in the Pyramid Texts and the Coffin Texts. Being such a popular domestic animal (in one text it appears in parallel with a cat) it is not surprising that appeared frequently as a personal name, however, does not occur used in this way.

The word (see above; note too Wh V, 116, 2, for the spelling of ) is one of a number of terms for monkeys built around the consonant recorded by Wh. The simple form (Wh V, 110, 4: Art Affen) appears only in the list of produce given by the snake in the story of the Shipwrecked Sailor to the unfortunate traveller, and may therefore, be presumed to be an animal of Punt, like the with which it is mentioned. The feminine form (Wh V, 110, 5-6: die Äffin) occurs in the Book of the Dead and also as an epithet of Hathor at Dendera. The reduplicated form occurs in the 'Decree' of Ḫaremḥḥab and the Chester Beatty dream papyrus ( and respectively) and on two ostraca ( and ). Two other words should also be taken into consideration here: and though they may well designate entirely different species. Once again the spelling seems to suggest an attempt to render a noise.

(not in Wh) is found in the Coffin Texts and in the Chester Beatty dream papyrus. Gardiner noted of the latter: 'The determinative suggests a quadruped, perhaps a monkey'. Brunner compared the term with the srw of P. Ebers which was read by Wh. Droa., however, as 'Widder' (ie sr). A further term with monkey determinative occurs in the Ramesseum Onomasticon published by Gardiner. The word is imperfectly preserved; the b at the beginning is clear but is followed only by a tick, possibly for . Gardiner suggested the translation 'cynocephalus ape' (ie baboon).

It is noteworthy that the only occurrence of a monkey name in the medical texts is recorded in an invocation, unlike many other animals whose parts were often cited for use in prescriptions.

Monkey determinatives are also uncommon, occurring in the word (Wh V, 56, 16-57, 12: wütend werden, in Zorn geraten, zürnen) which has been compared with Arabic kird 'monkey', and once in (Wh III,
The determinative is of a baboon, whose outbursts of rage have been noted by zoologists.
Greco-Roman sources relate that the ancient Egyptians avoided eating the flesh of pigs and even touching the animals themselves and that swineherds were accorded only low social status, views adopted by Hopfner and other scholars. Pigs (Sus scrofa L) are, however, mentioned in ancient Egyptian livestock lists and are represented in various tomb scenes, so they were clearly considered on a par with other domesticates such as the goat. The use of the parts of the pig in the medical texts would likewise indicate that they were not generally taboo, although it is clear that their mud-grubbing habits were not highly regarded, and to dream of a pig was a bad omen. Some later evidence of a pig taboo may be deduced from P.Jumilhac. An incantation against pig bites shows a more pragmatic fear of pigs.

In all these contexts the word for pig is ṣ鸾 (Wb IV, 405, 7-10: das Schwein), which survived into Coptic as ᵃₚ (CD 63a: sow). The more common Coptic term was pʰ (CD 299a: swine, pig) of which the Egyptian antecedent was ᶨ (Wb II, 438, 7: das Schwein). Both terms appear in one passage from the Book of the Dead where the sight of Seth, in the form of a black pig (𩀆 km), blinded Horus to cure him the Ennead pronounced pigs an abomination. ᶨ is not a purely mythological term (cf db and ᵢᵇ for the hippo in different contexts) as it occurs in the medical P.Ebers where the part used (��) is the same as that from a ṣ鸾 in another medical text. The feminine form ᶨ (Wb II, 438, 8-11: die Sau) also occurs in a non-mythological context, and is attested as a personal name. Elsewhere the term recorded for the female pig is simply ᶨ (��) (For ᶨ see especially Ch. 4: Cattle). ᶨ otherwise designated the part-hippopotamus deity Tueris, and may in a late text designate the hippopotamus itself. The word is also used of a constellation, thought of as having the form of the Tueris animal. T. ᶨ was used to designate another 'Mischwesen', the monster, part-crocodile-part-hippo-part-lion, believed to devour the hearts of the unjust in the afterlife. Piglets were called ᵀᵉᵐᵉʷ 'young' though ᶨ appears in this context also.

Pigs were associated with Isis (Min-Horus is called 'son of the white sow (-unused)') but most commonly with Seth. The Seth animal appears at Beni Hasan with the name ᵃ² (Wb IV, 401, 81)
6-7: Name für das Tier des Seth), and is later called \( \text{\( ëš\)} \) (Wb I, 134, 20: Art Hund). The identification of the Seth animal has generated a vast literature\(^{33}\) and its likeness to the pig has been both asserted\(^{34}\) and denied.\(^{35}\) \( ëš\) with pig determinative is recorded as an animal of the desert,\(^{36}\) as was obviously the case with the \( ëš\) animal at Beni Hasan, but this is not proof that the \( ëš\) animal was, or had been, derived from the pig. Though classical sources indicate that the pig was considered 'typhonian',\(^{37}\) it has been argued that the association of Seth and the pig was late in date\(^{38}\) and it should also be noted that Seth could assume various animal forms. The Seth animal was often drawn (misinterpreted) as a donkey so the pig connection cannot have been particularly strong. There is, indeed, some evidence from ancient Egyptian sources that the \( ëš/ïš\) was considered as - or closely related to - some type of dog or jackal. (See Ch. 5: Dogs and Similar Animals).

In addition to \( ëš\) and \( ëš\) a number of rare words with pig determinative are attested. \( \text{\( ë ś\)} \) (Wb I, 69, 14: Schwein), of which \( ë ś\) (Wb I, 9, 4: etwas geopfertes) may be a variant writing, occurs only twice\(^{39}\) prior to the Ptolemaic period; one of these attestations provides the only example of a pig in an offering list.\(^{40}\) \( ë ś\), perhaps from \( \text{\( ë ś\)} \) 'be(come) pregnant' (Wb I, 481, 1-11: schwanger werden, schwanger sein... schwängern) occurs in the Book of the Dead\(^{41}\) and in the Coffin Texts.\(^{42}\) \( ë ś\) and \( ë ś\) (neither in Wb), both occur in toponyms.\(^{43}\) Dawson\(^{44}\) seemed to see these words as separate from the pig determinative, and understood 'pig-striking'. \( ë ś\), however, is not attested, at least in Wb, as a verb, and the determinative, in any case, generally shows an animal other than a pig. (See Ch. 14: Miscellaneous Mammals.)
Chapter 12: Sheep

Two types of sheep can be identified from Egyptian reliefs, one with horizontal spiral horns, the other with horns curling down at the side of the head. The first type appears in the Middle Kingdom and earlier; the second in the Middle Kingdom and later. Hieroglyphs tend to show the former sheep (Sign List G10 and G11) though late examples may show the second. Khnum represented as a ram took the form of the first type while the ram of Amun-Rê was depicted with side-curling horns. In mythological texts these types were referred to as ḫ3 (Wb I, 414, 9-14: heiliger Bock) and ḫnh (Wb II, 441, 1-3: der heilige Widder des Amon) respectively. Though ḫnh had a very restricted usage, applying only to the ram of Amun-Rê and to Seth, it was also popular as a personal name. Bī was applied to many deities, especially the god of Mendes whose name comprised the element ḫ3 (Banebd Edwards: Wb I, 414, 9), and Amun and Rê could also be addressed as ḫ3 or ḫnh. Wb recorded another term for sheep, ḫft (Wb IV, 456, 4-8: anscheinend Name der älteren ägyptischen Widderart). This term is determined by a ram’s head with horizontal horns (Sign List F7). It does not appear in contexts which would mark it as a simple species designation — in livestock lists for example — nor was it associated with particular deities, like ḫ3 and ḫnh. It occurs rather as, or in comparisons involving, some kind of ornament: ḫnt ḫft appears to be the name given to the ram’s head which could decorate the prow and stern of ceremonial boats. (For other animals in similar settings see ṣmḥ and tut-mrwv).

A fourth term with ram determinative, ṣḥwy, noted by Wb (I, 180, 3: Name eines heiligen Widder) occurs only once, in parallel with ḫ3, as an epithet of Osiris.

Despite the distinctions made in mythological contexts, the Egyptians do not appear to have given separate names to sheep with horizontal or side-curling horns as livestock. In lists of domesticated animals, only ṣr (Wb III, 462, 7-13: Schafbock, Widder) appears as a term for sheep. Although early representations of both sheep and goats exist the term ṣr is much less common than ḫnh ‘goat’ in the livestock lists, and Janssen wondered, owing to the paucity of references to ṣr in the Ramesside ostraca, whether ḫnh might cover both sheep and goats. However, although some reliefs seem to indicate that they were considered to be closely associated (cf also sheep and...
goats as determinatives of \( \text{\textit{swt}} \), and distinguished as \( \text{\textit{swt \ ndst}} \) respectively\(^{24}\), there are sufficient instances of \( \text{\textit{sr}} \) and \( \text{\textit{cnh}} \) in parallel to establish that they designated separate groups of animals.\(^{25}\) One such instance was indeed known to Janssen from the ostraca.\(^{26}\) In view of the almost complete absence of \( \text{\textit{sr}} \) from the Deir el-Medina texts it is interesting to note that sheep are not depicted on ostraca;\(^{27}\) the animal resembling a sheep on one is labelled \( \text{\textit{b3 \ cnh}} \) and shows the hybrid sheep-goat of the god of Mendes\(^{28}\) which should not be regarded as a zoological species. The evidence of these ostraca sketches should not be used to prove that sheep were absent from Deir el-Medina; a donkey is drawn only once on an ostraca though over 100 references to \( \text{\textit{s3(t)}} \) 'donkey' are recorded on the ostraca texts (see Ch.8: Horse and Donkey).

\( \text{\textit{sr}} \) is also the only term for sheep to occur in the medical texts.\(^{29}\) The absence of \( \text{\textit{b3}} \) and \( \text{\textit{rhn}} \) from this corpus would indicate that they were not true (zoological) names, terms for species or types, but very restricted sub-sets of \( \text{\textit{sr}} \) applicable only to gods or to sacred animals.\(^{30}\) (note that the \( \text{\textit{rhn}} \) is called 'son of the \( \text{\textit{sr}} \)'\(^{31}\) and that \( \text{\textit{b3}} \) and \( \text{\textit{sr}} \) may appear in parallel\(^{32}\) so connections between the groups were evidently recognised).

\( \text{\textit{sr}} \) survived into Coptic as \( \text{\textit{c\text{"\textalpha\text{"oo\text{"}}}}} \) (CD 61a: 'sheep'),\(^{33}\) though \( \text{\textit{rhn}} \) did not, and \( \text{\textit{b3}} \) only in \( \text{\textit{\textalpha\text{"\textalpha\text{"}\textπ\text{"}}} \) (CD 39a: 'goat'),\(^{34}\) presumably derived from the phrase \( \text{\textit{b3-n-\text{\textpi}}} \)\(^{35}\) (cf too \( \text{\textit{\textalpha\text{"\textpi}}} \) CD 43b: 'he goat' also connected with \( \text{\textit{b3}} \)).\(^{36}\) \( \text{\textit{c\text{"\textpi}}} \) (CD 354a: 'ram') is also derived from this word.\(^{37}\)

Ewes appear as \( \text{\textit{srk}} \) (Wb III, 462, 14: das Schaf)\(^{38}\) and \( \text{\textit{w\text{"\textalpha\text{"}\textπ\text{"}}} \) (Wb I, 251: das Schaf),\(^{39}\) the latter, from the context, apparently designating a sheep suckling young.

Coptic also preserved an earlier term in \( \text{\textit{\textalpha\text{"\textε\text{"}}} \) (CD 254b: 'ram').\(^{40}\) The word, probably of Semitic origin, appears possibly three times in Egyptian texts, twice in records of provisions (Wb I, 106, 5: Widder?; Wb I, 38, 16: Hirsch(?), Widder(?))\(^{41}\) and once in a list of animals as offerings.\(^{42}\) It is, however, also possible that these writings (or some of them) represent Coptic \( \text{\textit{\textepsilon\text{"\texti\textγ\text{"}}} \) (CD 77a: 'hart, hind') which replaced the earlier Egyptian term for 'deer' (\( \text{\textit{hnn}} \) - see Ch.2 : Antelopes and Similar Animals).
A group of sheep (as seen in certain agricultural scenes) could be designated ḥṣt (Wb III, 154: die Schafherde (welche die Saat eintritt)) or ṣḥt (Wb III, 464, 2: die Schafherde, welche die Saat eintritt; cf ṣḥt: Wb IV, 209, 9: Herde von Eseln), both, presumably, writings of the same word. In one instance [ṣḥt] is replaced by an ideogram of three sheep.

For the Wild or Barbary Sheep (*Ammotragus lervia* Pallas) see Ch.2: Antelopes and Similar Animals; when this animal appears in tomb scenes it is depicted with other members of the ʿwt ḥṣṭ and there is no evidence to suggest that the Egyptians regarded it as substantially different from gazelles, oryxes etc.

The words sḥḫt and ʿnw, both from the Book of the Dead, which in the version published by Naville have sheep determinatives, are probably miswritings of the similar cattle terms (see Ch.4: Cattle); Allen translated 'my spotted cows and longhorns' and Barguet 'mes vaches bigarrées, et mes boeufs negacou'.
Chapter 13: Miscellaneous Mammals (A)

A number of terms can be identified with varying certainty as the names of animals; these are discussed in alphabetical order over the next two chapters.

Inh (Not in Wb). The term is a hapax. The animal is mentioned in the Kamose Stela where women peering from windows are compared to 'the young of the Inh within their holes.' Such holes (ḥabāw) are mentioned as the dwelling places of snakes (ḥfāw) and mice (pnw) as well as being used of bodily orifices and parts of the river (perhaps deep depressions in the river-bed). If the fort walls mentioned in the text were indeed as reconstructed in the drawing of Smith and Smith the Inh would seem to be an animal inhabiting deep burrows in, for example, the high banks of canals. Translations have included 'mice(?)' (Habachi); 'snake', 'worm' or 'lizard' (Smith & Smith: 'We rather prefer the gekko lizard'); 'weasel' (Harris, preferring a sinuous creature as suggested by the homonym Inh 'eyebrow' (Wb I, 99, 1-2: Augenbraue).

CmCmw (Wb I, 186, 10-11: ein vierfüßiges Tier... Name eines Torwachters im Jenseits). As the name of an animal, CmCmw appears in a medical text in a prescription for an ear complaint and in a veterinary text where its smell is referred to. In the latter the word has a specific determinative, unfortunately partly missing where the papyrus is damaged; Griffith described it thus: 'The determinative is an animal with short legs, tail slanting outwards and downwards, the head unfortunately lost. It may be the ichneumon, or a rat'. The same identification was proposed by de Wit who compared Cm 'swallow' with the mongoose's swallowing of its prey, snakes. The word has also been compared with Coptic (Oxyrhynchitic) Emtm translated 'shrew mouse'.
by Crum⁵ and thus taken to be not the mongoose but the shrew, a voracious eater capable of consuming two and a half times its own body weight daily.¹⁶ This was also the view of Vycichl¹⁷ following Brunner-Traut's study of both the shrew and the mongoose and the words ḫstw and ḫtrw.¹⁸ Both these designations appear as the names of deities on the base of a statue in Berlin¹⁹ and Brunner-Traut believed that both were associated with ḫ(H)nty-(n)-ııty²⁰, originally a falcon-god at Letopolis, but as early as the Pyramid texts²¹ associated with Horus of Letopolis, whose eyes, one sighted and one blind, symbolised sun and moon, day and night.²² The ḫm(f)mw is represented in the Underworld as a deity with the head of an animal with a long pointed muzzle and prominent whiskers.²³ In demotic the ḫm(f)mw is described as telling the future and being hot tempered;²⁴ in another demotic text it is said to cause blindness in a man and erotic feelings in a woman. The latter text also provides the only explicit association of the ḫm(f)mw and Letopolis²⁵ though in a Ptolemaic text Osiris, Lord of Abydos, is addressed as ḫm(f)mw by the goddess of the Letopolite nome.²⁶ These texts were taken by Brunner-Traut to indicate that the ḫm(f)mw was a shrew, though the evidence suggests that ḫtrw should be translated in this way. The close association of the ḫm(f)mw with the ḫtrw (see Ch.14) may indicate that it was a similar animal. (See also ḫfr, immediately below).

CrCr (Wb I, 210, 7 : ein essbares Tier). The term was recorded from only one Ptolemaic text by Wb²⁷ though it may also have occurred in Demotic.²⁸ A further attestation is found in a magical papyrus,²⁹ though in an obscure context. The word is included here because of comparisons with Lr (see Ch.7 : Goats)³⁰ and ḫm(f) (see immediately above).³¹ Meeks’³² reading of Lr from the Ptolemaic text (which refers to Mendes) is possible, but the magical papyrus reference seems to confirm the existence of a discrete animal CrCr. That it is described in the latter as emerging from mud is reminiscent of the belief that mice were generated spontaneously from Nile alluvium³³ and it may, therefore, have been a mouse or similar small beast.

Cd (Not in Wb). This animal is identified with Re in the magical texts on the statue of Djed-Hor; when the god was battling with the serpent demon Apophis he did so in the form of an Cd of 46 cubits.³⁴ It is tempting to see in this snake-slaying animal the mongoose (Egyptian mongoose, Herpestes ichneumon (L), often known simply as 'ichneumon') though other animals will kill snakes.³⁵ A figure called Cd is shown similarly vanquishing a snake in the Book of Caves.³⁶ The mongoose(? )
appears to determine the phrase \( \text{jhm n t} \), 'representation of Re', elsewhere in the Djed-Hor text.\(^{37}\) The \( \text{Cd} \) also occurs in association with the sun-god in the Coffin Texts,\(^ {38}\) where it is described as 'who cannot see the brow of Re-Atum'. Faulkner suspected that a nocturnal or semi-nocturnal animal which seldom saw the sun was meant and suggested 'jackal' as a translation. This is unlikely given that \( \text{Cd} \), associated specifically with Atum, appears in the inscriptions over two mongooses on a naos from Cairo\(^ {39}\) - \( \text{Cd} \) (originally read \( \text{qd} \)) is written over one, over the other \( \text{Itm k3 lwnw t3 dwst k3 d6f}10 \) - 'Atum, der Schutzgeist Heliopolis, fester Stein, hoch 10 Finger' (Sethe's translation).\(^ {41}\) \( \text{Itm k3 lwnw} \) is also the name engraved on a Saite statue of a mongoose published by Sethe.\(^ {42}\) Sethe suggested that the name of the animal was originally \( \text{lng} \). The name of the Heliopolitan nome 'Gau des lng-Herrschers' could thus be explained as the nome of Atum. The name has also been interpreted as 'the perceiver'.\(^ {43}\) (For \( \text{htrw} \), often quoted as the name of the mongoose, see Ch.14).

\( \text{wr} \) (Not in Wb; noted by Meeks, AL 78.1029). From the Coffin Texts, in the phrase: 'look on the face of the Great One'. \( \text{wr} \) is determined by an animal sign (var. BIBO) of which de Buck noted: 'the tail differs from that of \( \text{gr} \)' ('sheep', 'ram').\(^ {44}\)

\( \text{whswt} \) (Not in Wb; noted by Meeks, AL 78.1066). Meeks gave only one instance of the word from the Coffin Texts and translated: 'un animal; les prédateurs(? )'.\(^ {45}\) The word is replaced in the Book of the Dead variant with \( \text{hwy} \) (recorded by Wb under \( \text{hhn} \) 'dog'); see Ch.5 : Dogs and Similar Animals.

\( \text{bg} \) (Wb I, 482, 9: Name eines beissenden Tieres). The word appears in the Harris magical papyrus together with the animals \( \text{dprn} \) (see below) and \( \text{hwy} \) (see Ch.8 : Horse and Donkey).\(^ {46}\) It is tempting to compare a very similar phrase in the same papyrus referring to three dangerous animals, a lion (\( \text{ms1} \)), an unknown creature which has been identified as a bear (\( \text{hmt} \) - see below) and a jackal (\( \text{wnb} \)).\(^ {47}\) It was perhaps this which caused Chabas,\(^ {48}\) who transcribed the word \( \text{hajsw} \) (sic), to comment: 'ce doit être le léopard, nommé \( \text{anw} \) dans un autre texte.'\(^ {49}\) \( \text{hwy} \) has been considered to name Seth in the form of a donkey;\(^ {50}\) the danger from these three animals was, therefore, perhaps more mythological than real.

\( \text{dnw} \) (Wb I, 508, 6-10: die Haus). A considerable number of mice and mouselike species - spiny mice, gerbils, jirds, jerboas and sand-rats,
for example - are known to inhabit modern Egypt but only one ancient Egyptian name may be said with certainty to apply to these creatures. This is pnw, sometimes translated 'mouse', sometimes 'rat' or even 'jerboa'. The word survived into Coptic as 'hun'.

Since named representations appear so seldom it is not easy to decide whether pnw applies to all mouselike rodents or merely the most common type (i.e., house mouse, Mus musculus L, as might be inferred from its depiction with a cat (mlt)?). Cat (mlw) and mouse (pnw) also appear together in a mathematical text recording a multiplication by sevens (seven houses, 49 cats, 343 mice etc.), in a medical text and in a text from the Book of the Dead where the mouse is called 'the abomination of R7ef'.

Other texts mention pnw in burrows (bbswt) which is of little help in establishing the precise identity of the animal as all the species mentioned above dig burrows. These burrows were vulnerable to the waters of the inundation; one text compared the soldier's hard life with that of the mouse during the flood season. The pnw is also recorded as a bad omen and in the fields as a pest. This characteristic is fairly uncommon among Egyptian rodents but is displayed by the Nile Grass Rat and the Egyptian Bandicoot Rat; other species, such as the House Mouse and some types of Spiny Mice can also be found in cultivated land near buildings. Another text mentions pnw in the desert. Unfortunately the pnw depicted at the causeway to the pyramid of Unas are shown on bare registers without any indication of habitat.

The pnw were ranked by the ancient Egyptians among the most insignificant and the most helpless of creatures and it may be that this insignificance led to small rodents not being very clearly distinguished in the modern zoological sense - compare the relatively restricted number of terms surviving for insects from ancient Egypt (although insects are the most numerous animal type worldwide). It also appears, however, that the Egyptians distinguished between some species and even perhaps subspecies, and it may be that the texts which have survived give a distorted picture.

Despite their evidently lowly position in the animal kingdom, the pnw were important as materia medica and are recorded several times in the medical texts. In one case the mouse is to be eaten; references to the eating of mice are known from other contexts too. They were,
In addition, popular subjects for sketches and satirical drawings.\textsuperscript{74} Pnw is also recorded several times as a personal name\textsuperscript{75} and in the names of plants.\textsuperscript{76}.

\textit{prt} (Not in Wb). The sole representation of this animal is preserved at the Unas causeway.\textsuperscript{77} The figure of the animal itself is lost - all that remains is the curve of its head and back. It is shown in the scene next to another animal (\textit{hmh} - see below) giving birth to young, and appears to have been a similar small creature.

\textit{prtrw} (Not in Wb). See the discussion of \textit{bptrw} above.

\textit{pkrh} (Not in Wb). The term is recorded from the temple of Niuserre.\textsuperscript{78} Only the back leg of the animal to which the name seems to apply remains (it cannot apply to the next animal on the register as this is named qafnw). For further discussion see Ch.2: Antelopes.

\textit{m3s} (Wb II, 33, 2: ein Tier von roter Farbe). Wb referred to a passage in the Book of the Dead which runs: 'I am that red \textit{m3s} (animal) which is in the writings'.\textsuperscript{79} Red \textit{m3sw} also occur in the Coffin Texts.\textsuperscript{80} \textit{M3ew} 'in a team' (in \textit{hr} \textit{fr}) are mentioned in a fragment of text published by Caminos,\textsuperscript{81} who further noted a title 'overseer of \textit{m3ew} in the temple of Onuris'.\textsuperscript{82}

The term may be compared with two very similar words, \textit{mist}, var. \textit{mrst}, from the Coffin Texts,\textsuperscript{83} and \textit{mist}, which appears in Old Kingdom tombs as the name of a piece of clothing, specifically a type of \textit{\textasteriskcentered} \textit{(Wb I, 27, 15: Allgemeine Bezeichnung für Schürze)}.\textsuperscript{84} A plural writing of \textit{mist} also occurs in a New Kingdom text, among animals hunted by Pharaoh in Syria (at Rbiw near Kadesh).\textsuperscript{85}

In the latter text Badawi read \textit{mist} as an error for \textit{msvt}, known from the phrase \textit{msvt nt \textasteriskcentered}, 'young of the horse', and translated the term 'Füllen'.\textsuperscript{86} This was rejected by Vikentiev on the grounds that 'foals' would not be found alone and no other horses are mentioned in the text. Keimer also disagreed.\textsuperscript{87} He asserted that \textit{msyt} would never have been written 'd’une manière aussi bizarre' (without the \textit{ms} sign) and that \textit{mist} 'est certainement le pluriel du nom d’un animal syrien sauvage'. Bearing in mind the tendency in Egyptian lists to run from largest (most important) to smallest (least significant),\textsuperscript{88} Vikentiev assumed \textit{mist} to be larger than the hares (\textit{mh\textasteriskcentered}) but smaller than the gazelles (\textit{ghs}) mentioned in the same text. He noted the 'red \textit{m3s}' of
the Book of the Dead and deduced of mist: 'Ce sont des petits animaux au poil fauve. On se demande s'il ne serait pas du genre Vulpes, un renard ou quelque autre canidé'. This suggestion certainly seems to be consistent with the other types of animals mentioned in the Old Kingdom clothing lists noted above.

A number of the terms occurring in the clothing lists are also attested as the names of animals. Pis90 and b3wm91 are given in Nb (Nb I, 415, 4-6) as 'Panther... Leopard, Gepard'. Nrt as an animal name occurs only in the temple of Niuserre in a scene showing various animals giving birth to young,93 and seems to name the cheetah. Hed as an animal, probably a member of the Canidae, is found in P.Jumilhac in connection with wn (jackal) and tm (dog) and elsewhere appears as the name of a dog-headed, falcon-bodied being together with other terms for jackals and dogs.94 Tbt was compared by Edel95 with Inbt, translated by Keimer as 'caracal'. Tb with animal determinative was also noted as a personal name by Roquet.97 Wn is well attested as the name of a type of jackal. T1wd and h occur only in these clothing lists. Since the other terms in these lists are also used of animals it is likely that t1wd and h are animal names also.98 Furthermore, in view of the fact that five of these eight names are applied to members of the cat and dog families, it is also probable that the other terms, mast, tiwd and h, also belong to these categories. (For further discussion of these lists see Ch.5: Dogs and Similar Animals and Ch.9: Lions and Other Cats).

Even if the translation mast 'fox' (or similar) is accepted the mis(w) and mist remain problems. Keimer noted the Book of the Dead reference to m3e but when attempting a translation took into consideration the Coffin Text determinatives of mist showing an animal with horns. He concluded: 'L'animal rouge du Livre des Morts pourrait désigner une espèce de Gazelle, mais aussi le Bubale ou le Daim et le Cerf, bovidés de couleur roussâtre, tandis que les antilopes Oryx... sont plutôt blanchâtres'.99 Allen translated similarly: 'red deer'.100 Caminos wondered whether the mis 'in a team' were mules, but this was rejected by Kitchen because of the writings of mist with horned animals as determinatives and because of the existence of a word ptr which may be convincingly translated 'mule'.101 Nevertheless the only animals generally depicted 'in a team' are cattle, horses or donkeys, and horses are only shown thus in, or in close association with, battle scenes. The s3bw and lŠ (jackal and Seth-animal(?)) however are depicted in religious texts in pairs or groups of three
drawing the bark of Re, which is of interest as Caminos’ text appears to mention a ‘divine boat’. The presence of an ‘overseer of \( m\text{s}w \)' in a temple would indicate that they were some sort of livestock, (see Ch.5 for dogs (\( \text{iw} \)) in a list of livestock), kept there for sacrifice or for the purpose of religious ceremonies.

Meeks took \( m\text{s}w \) in the Coffin Texts\(^{102} \) to mean 'taureau (au poil roux)', comparing Caminos' text. He differentiated \( m\text{s}(w) \) from the \( m\text{s}t \) of the Coffin Texts noting that the latter term: 'paraît se rattacher à \( m\text{s}(j)zw \) "pointe, piquant" et ses dérivés'; he translated accordingly 'animaux à cornes(?). Another example from the Coffin Texts\(^{103} \) he rendered: 'peau du taureau \( m\text{s}(tj) \)'. This usage he compared with the Old Kingdom clothing lists. The example reads, however: 'I am the \( m\text{s} \) of the Bull in Letopolis'; parallel phrases indicate that \( m\text{s}t \) or \( m\text{s}t \) 'liver' (\( \text{Wb} \), 44, 11-14: ein inneres Organ... vermutlich die Leber), should be read.

\( m\text{m} \) (\( \text{Wb} \), 58, 15: ein Tier). The determinative of this toponym shows a canid-like animal with pointed, upright ears and a long tail. The word \( m\text{m}y \) 'giraffe' may be compared; \( m\text{m} \) may thus name a spotted member of the family. (For further discussion see Ch.5: Dogs and Similar Animals and Ch.2: Antelopes and Similar Animals).

\( m\text{h}n \) (\( \text{Wb} \), II, 131, 11: ein Tier). A \( m\text{k}\text{t}w m\text{k} m\text{h}n \) \( m\text{h}\text{k}m \) appears in the 'Annals' of Tuthmosis III, in a list of tribute from Retjenu.\(^{104} \) As \( m\text{k}\text{k}h \) occurs elsewhere as a term for animal skins\(^{105} \) (\( \text{Wb} \), II, 150, 3-5; \( \text{Wb} \), II, 149, 10-14) it seems reasonable to assume that \( m\text{h}h\text{h} \) was the name of an animal from Retjenu (Syria-Palestine). That the word occurs only here would indicate that the creature was not native to Egypt. The type of animal cannot, however, be deduced from the context, though since its skin was large enough to produce an arm-band (\( m\text{k}\text{t}\text{t}w - \text{Wb} \), II, 150, 8-9: Armring) it was presumably not very small.

\( \text{rhty} \) (Not in \( \text{Wb} \)). The word appears only in the Coffin Texts.\(^{106} \) De Buck noted of its determinative: 'Transcription doubtful; some insect (cf. eg. 281c)? [\( \text{k}\text{tt} \) - see Ch.20: Insects) or a pig (cf.293a)?.'\(^{107} \) (the next spell begins \( \text{f} \text{n} \text{h}h\text{f} \text{fr}\)). Faulkner\(^{108} \) translated: 'Spell for driving off the fearsome companions', with 'monster det.'.

\( \text{h}\text{tw} \) (\( \text{Wb} \), II, 503, 11 : ein Tier (im Zauber)). This word, together with its feminine equivalent \( \text{htt} \), occurs only once in one of a series of prescriptions in P.Ebers under the title 'remedies for stopping

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secretions. A list of ingredients is given and then an invocation to the $htw$ and $htt$ (דeterminatives) and the $cdn$ and $cdn.t$ (determinatives א-ו respectively) to be spoken while the ingredients are made up (། Salisbury) with water prior to being exposed to the dew at night. Presumably, from the determinative, both are animals (or perhaps spirits in animal form) as supposed by Wb. Progr., which translated '〔Tier〕'. The passage was also discussed by Schäfer, who saw in $htw/htt$ variant writings of the $htt$, a term applied to sun-worshipping baboons. (For further discussion of this term, see Ch.10: Monkeys). He was not able to identify the $cdn(t)$ and indeed Wb knew it only from this one text. Though Wb recorded the words $cdn.t$ 'Art Armband', $cdn.t$ 'Art Beschaffenheit des Kupfers' and $cdn.t$ 'Name eines Öls' they throw no light on the medic's terms.

$hwnt$ (Not in Wb). Apparently only in the Coffin Texts, in parallel with $∫n$, baboon (see Ch.10: Monkeys) and with the 'fiery serpent' (nsrt).

$hnt$ (Wb III, 80, 14 : ein Tier). The word occurs as a personal name and in a toponym. The determinative shown by Ranke is of a mouse-like creature; in Junker's publication the animal resembles Ranke's determinative for the word $hdrt$ showing a longer-legged creature with extended tail and hairy back. The $hnt$ is shown in a desert scene giving birth to young. It has long, prominently depicted whiskers and a long slender, rather weasel-like, body. (Contrast the shape of the $pnw$ in the nearby scenes). This, unfortunately, is not enough to identify it with certainty. $hnt$ may not necessarily be a species name, as Ranke implied by his translation 'das (weibliche) $hnt$-Tier', but simply the 'female' of the animal shown. (For $hnt$ as the designation of the females of various animals see Ch.4: Cattle, and elsewhere).

$hntv$ (Wb III, 121, 15: ein Tier mit Stacheln). The $srt$ of this animal are used in a medical text, burnt and soaked in fat, to be applied to the head as a remedy for a disease causing baldness (nssk). Ebbell took $hntv$ to be a name for the hedgehog and he translated the very similar $hnt$, also of P.Ebers, in the same way (see below). Zu Hülshoff did not translate any more precisely than 'Stacheltier'. Given the primary meaning of $srt$ (Wb IV, 190, 24-191, 2: Dorn, Stachel) it seems difficult not to equate the $hntv$ with the porcupine (Hystrix cristata L) or one of the seven types of hedgehog found in Egypt and represented by the ancient Egyptians.
Keimer believed that hntv may have designated both hedgehogs and porcupines, citing the frequent confusion of the two in modern Egypt.

hnt3 (Wb III, 122, 7: ein Tier). In P.Ebers the 'hairs' of this animal, burnt in fat, are applied to the head for four days to restore the hair during the illness nsak. The similarity of this prescription to that referring to hntv is such that hnt3 must be understood as a variant writing of this word. Ebbell seems justified in his translation: 'quills of hedgehog'. The hnt3 occurs in another medical text in a gloss accompanying the description of a procedure for treating a chest wound. The hnt3 (determinative 3) of the patient's chest (k3bt - Wb V, 11, 2-8 die Brust ...das Knie der Scheitel) is explained as the 'upper head' (tp hrv) of his chest, 'it being like the form of a hnt3'. Whether this is a genuine comparison (Breasted compared the man's ribs with the quills of a porcupine) or influenced by word-play is difficult to deduce.

htv (Not in Wb). The word occurs only in the phrase rntn htv and was taken by Vandier as rntn htw 'l'année des hyènes'. Spiegelberg supposed that the phrase referred to some local event - in a year when food was scarce hyaenas may have scavenged closer than was usual to human settlements and thus been more than usually in evidence. Vandier also wondered whether the phrase might not be a metaphor referring to a plague of foreign invaders. The use of wn3 'jackal' in 'jackal-Nile' (h(pv-wn3) in reference to a low inundation may be compared. (For htw, hyaena, see Ch.5: Dogs and Similar Animals).

hth (Recorded in Wb III, 203, 16-17: die Hyäne). Where hyaenas are depicted and named in ancient Egypt the name is written hth, though an Old Kingdom toponym shows a (variant) writing htw with hyaena determinative. (See Ch.5: Dogs and Similar Animals). The two writings in the Harris magical papyrus quoted by Wb under hth are quite distinct from these forms without the additional problem of the appearance of a fairly clear final -b in one of the passages. In both cases the word accompanies other animal names. In the second it is preceded by m3lw 'lion' and followed by wn3 'jackal' (for these terms see Ch.9: Lions and other cats and Ch.5: Dogs etc). In the first case (presumably the same word though the writing differs slightly) it is preceded by m3lw 'lion'. In both passages these animals are mentioned together with 'all long-tailed animals which eat flesh and drink blood'. All are, therefore, presumably carnivorous, which would accord with the interpretation 'hyaena'. Lange supported this translation, but
preferred to read the word as a corruption of a separate word $\text{htmt}$, recorded by Wb. De Wit also read $\text{htm}$, but translated 'des hyènes'.

$\text{htmt}$ (Wb III, 198, 14: ein wildes Tier in Syrien). This term is recorded by Wb from two places in P.Anastasi I. In the first instance it occurs with two other animal names, $\text{ml}$ 'lion' and $\text{shv}$ 'leopard' (possibly for $\text{rhy}$ 'lioness'), in the tree-filled land of Magar. The second refers to an apparently historical incident, in which the chief of Isar, Kadjardy, was seized by a $\text{htmt}$ in a tree. This would rule out the translation 'hyaena' as hyaenas do not climb trees, though big cats and bears do.

The latter reference recalls vividly the scene on the second pylon in Luxor temple depicting Ramesses II's battle at Satuna which shows an Asiatic in a tree caught at the ankle by a bear, and it was with this scene that Posener began his proposition that $\text{htmt}$ meant 'bear'. Although the place name Isar has not been identified with certainty (though it has been compared with biblical Asher) most authors place it with Magar and Satuna in Syria-Palestine. Leopards and cheetahs are still present in the Arabian peninsula and cheetahs at least used to be found in Palestine. In the Bible lions and bears are mentioned together several times and lions and $\text{htmt}$ are mentioned in P.Sallier as a danger to soldiers in Palestine and Syria. (This does not altogether preclude the translation of $\text{htmt}$ as 'hyaena' as striped hyaenas are also found in this area.)

Bears are depicted several times in Egyptian reliefs and tomb paintings (almost exclusively as imports) but, unusually, are not named there. The animal in question is likely to have been $\text{ Ursus arctos syriacus}$, a sub-species of the European brown bear, sometimes known as the 'Syrian Bear' and described as a 'small, ashy-brown mountain race'.

The name $\text{htmt}$ itself Posener supposed to be derived from $\text{htm}$ 'détruire', meaning therefore 'la déstructrice' (rather than $\text{htmt}$ 'la détruite' used of the hippo in its rôle as incarnation of Seth) and commented: 'Il est assez naturel que les Egyptiens n'aitent pas eu un nom spécial pour désigner un fauve qui ne vivait pas sur les bords du Nil'.

Other writings of $\text{htmt}$ show various determinatives - $\text{l}$, lion, or leopard and dog - which may be explained (according to
Posener) by the scribes' ignorance of the form of an animal foreign to Egypt and never adopted into the range of hieroglyphs.

Htmt also occurs in a somewhat obscure context on a Dynasty 18 statue base\(^{154}\) and in the Ramesseum Onomasticon\(^{155}\) between the lists of birds and mammals; this would at least not contradict the translation 'bear'.

hts (Wb III, 204, 13 : ein rattenartiges Tier). The word appears only as a personal name. This is unhelpful in the identification of animals as the hieroglyphs in the determinatives of names tend to be small, no sense of scale is given by the presence of other animals, and published copies of the name tend to reproduce different forms of the same determinative.

Ranke\(^{156}\) translated the name 'die (männliche) Springmaus',\(^{157}\) which, if the determinatives can be trusted, is surely wrong since the hts has short legs and its stance is differently depicted from that of the jerboa.\(^{158}\) The Cairo Catalogue described the determinative as an 'Ichneumon'.\(^{159}\) Before his discovery of named representations of the Striped Polecat or Zorilla (gsfnw), Keimer\(^{160}\) suggested that the name of this animal should be found among the otherwise untranslated mm, hmt, hdt and hts. Having examined the Cairo example he concluded that the hts reproduced the Striped Polecat reasonably well, though with some notable differences.\(^{161}\) Despite the later revision of his opinion this was still the identification given by Roquet\(^{162}\) for the writing hts at Saqqara.\(^{163}\) Roquet also suggested a comparison of hts with Coptic 2HTC,\(^{164}\) which Westendorf translated 'Ichneumon(?).'

hdkk (Not in Wb). The word appears only once, in an inscription from Kawa:\(^{166}\) these animals, together with snakes, were swept away from the cultivated land by a good inundation. The animal of the determinative has large round ears and a long tail and may have been a 'rat' as has been suggested;\(^{167}\) the ravages of mice in the fields and the vulnerability of mice during the inundation (see pnv above) may be noted here. The term has been compared with hdk 'cut off' (Wb III, 206, 1: (die Nase) abschneiden) and its form, with the last radical reduplicated, with various other animal names (rfr, hffnn, hdr\(_L\), hpr).\(^{168}\)

hdr (Wb III, 214, 11 : ein Säugetier). Occurs in a number of forms, including hdl, hdt, hdr, hdt (Wb III, 214, 12 : ein Säugetier),
Numerous attempts have been made to identify the animal which appears as the determinative of the term, but no final conclusion has been reached. A Wb Zettel in Berlin noted of one attestation: 'allerdings wie eine Hyäne' and of another 'Springmaus oä' (apparently Sethe's identification). On one example where ḫdrt appear in a 'herd' (?ḥnt) Eisler noted: 'das Wort ḫdrt... [the determinative he printed is a calf], sonst als "Hyäne" oder "Springmaus" übersetzt, muß hier wohl einen anderen Sinn haben; nach dem Determinativ denkt man an Kleinvieh, was auch einen guten Sinn gäbe. Das Wort kann wohl nur die ägyptische Umschrift eines Femininums von kanaanäisch... ḫazir, "Wildschwein", "Eber", aramäisch ḫazira, assyrisch humziru, bzw habaziru sein.' ḫdr as a toponym has been translated similarly by Darby and Ghalioungui, as 'white-sow'.

Ranke commented on the determinative: 'Das Wortzeichen hinter ḫdr und ḫdrt sieht in den Publikationen einer Hyäne ähnlich, ist aber gewiß ein anderes Tier. Das ägyptische Wort für "Hyäne" ist ḫt.t (Koptische ZoΓέηΓεί), das nicht als P.N. belegt ist; zum ḫdrt-Tier vgl. LD III, 166 ...Herr HEUSER möchte den Namen ḫdrt mit dem (allerdings männlichen) Koptischen P.N. 2Γέλ zusammenstellen.'

Gardiner suggested 'jerboa' for ḫdr and (in the same publication) that ḫdrt, which he translated 'mouse', 'may mean weasel'. 'Jerboa' was rejected by Dawson on the grounds that the Egyptians would not have depicted the familiar jerboa so variously; the determinatives are not particularly 'various', but the legs drawn on the animal are too short for a jerboa.

The position was summed up by Barns: 'Neither ḫdr... nor ḫdrt... are securely identified'; 'neither can be a pig... and the equivalent "hyaena" for either seems doubtful in view of the known equivalent ḫtvʕ[sic] for the latter'.
**Chapter 14: Miscellaneous Mammals**

h3trw (Wb III, 236, 10: als Name eines Gottes (mit rattenähnlichem Gesicht)). This rare word is generally translated 'ichneumon', the meaning given by Crum to Coptic μαθων, which is likely to have been descended from the Egyptian word via demotic h3trw.¹ Crum suggested that the Coptic term was originally a loan from Arabic χατί and Chaldean ḥātul 'cat'.² In Wb the word is recorded only from the base of a royal statue in Berlin.³ On two sides of the base the king is described as 'beloved of' a deity; one deity is named hniy (see Ch. 13), and the other h3trw.⁴ These words were studied by Brunner-Traut; she believed that h3trw (like hniy - see above) designated the mongoose.⁵ In one Coptic text the μαθων is said to be at enmity with 'all reptiles' and this would accord with the identification of h3trw as a mongoose.

However, a deity called h3trw is depicted in the Underworld with the head of an animal with a long pointed muzzle and prominent whiskers reminiscent of a shrew.⁶ Various texts indicate that a deity h3trw was associated with Horus of Letopolis⁷ and inscriptions on bronze statuettes of shrews also connect them with this god.⁸ Mongoose statues, on the other hand, bear inscriptions associating them with Edjo, who is not associated with Letopolis.⁹ It appears, therefore, that h3trw did not denote the mongoose, but the shrew, a few species of which are found in Egypt today;¹⁰ Coptic references which indicate μαθων to be the mongoose should be considered separately.

hwrr (Wb III, 248, 2: als Beiwort eines Kalbes (als göttliches Wesen)). In the Book of the Dead¹¹ the word appears in the phrase bhs hwrr (for bhs 'calf' see Ch.4: Cattle). In the Coffin Texts¹² this same phrase is written with the bird determinative used in both bird and insect names. Lacau, who mentioned the Book of the Dead example in a discussion of bhs h3bw (see Ch.6: Elephant, Rhino and Hippo), compared the form of the word (with reduplicated third radical) with other animal names such as h3bw (see Ch.20: Insects) or h3nn (see Ch.19: Reptiles). The Pyramid Text phrase hwrr p3dt he compared to the hm-p3dt with pelican determinative also known from the Pyramid Texts.¹³ It seems possible, therefore, that hwrr named an animal (perhaps a bird?).

hn (Not in Wb). Occurs in an Old Kingdom clothing list from the tomb of Snfrw-snḥ. It may be an animal of the dog or cat family (see ms, Ch.13).
**hstt** (Wb III, 335, 5: Art Tier). Occurs, like **bn**, in Old Kingdom clothing lists. Other occurrences of the term in P. Jumilhac and at Edfu, and as the name of a jackal-headed deity on a Late Period sarcophagus, indicate that this animal belonged to the dog family (see Ch. 5: Dogs and Similar Animals, for a full discussion).

**gpka** (Not in Wb). The determinative may indicate an animal name; the word appears on an ostracon from Deir el-Medina used for writing practice.  

**smr** (Wb IV, 139, 10: ein Tier). The references in P. Ebers record that these animals could be killed by the burning of a **hntsaw** (det. Sign List II) and vice versa. Wb suggested that **smr** was to be understood 'als Feind der Eidechse' and there is a late tradition that scorpions and lizards were sworn enemies. Words for scorpions are, however, well documented (see Ch. 20: Insects). Stern gave the translation 'genus lacertae?', though without justifying it. Ghalioungui compared an Arabic term, **samnour**, for which he proposed the translation 'sable' or 'beaver', from a 14th Century Book of Animals. This animal was claimed to be like one of the cat family or like a mongoose, but with adaptable colouration; clearly a confused beast, and of little help in identifying the **smr**. Since P. Ebers prescribed one **hntsaw** to kill several **smr** and several **smr** to kill one **hntsaw** it is possible that they were smaller creatures; compare, perhaps, the **ntš** (see Ch. 20) which is apparently like, but clearly distinguished from, the scorpion. The 'cow's-skin' determinative does not help much in the identification of the creature since it was applied to reptiles and insects as well as mammals.

**snttt** (Wb IV, 161, 2: ein kleines Tier). The word occurs in a text on the statue of Djed-hor together with a number of other animal names, of which the only readily identifiable example is **pmw** 'mouse'. Another, **ggl**, is also recorded by Wb (Wb V, 208, 8: ein kleines Tier); the final term in the list was translated 'poulet' by Daressy. He rendered the passage: 'tu auras peur d'un rat, tu craindras un renard(?) tu courras devant les poulets... un senbati te fera fuir jus'qu'au cimetière'. These are presumably all small and insignificant animals which would not normally be feared; **snttt** can be identified only thus far. (See also **ggl** below).
snmty (Wb IV, 165, 13 : Art Tier.) In the Coffin Texts and elsewhere it is said that the tail (gd) of a snmty, placed at the stern of a boat, would protect it. Although boats may be drawn with animal heads there seem to be no examples with animal tails, though one text records the tail of a wild bull (sm3) at the stern of a boat (see Ch.4: Cattle). (See also tt-mrwy, the animal (bird?) put (for protection) at the prow).

erw (Wb IV, 193, 6 : ein Tier). The word appears in P.Ebers in the phrase erw wr. Wb.Drog. recorded separately from erw 'der Widder' (VI, p.454-455) but suggested that the words might be identical (VII, p.772 : Widder(?)); this seems likely. (See also Ch.12: Sheep).

Despite the use of the hare hieroglyph (Sign List E 34) to represent the phonetic group wn, and the appearance in the Coffin Texts of a word wn apparently with the meaning 'hare', the only named representations of this animal record the designation shft (Wb IV, 236: der Hase; Wb IV, 268, 11: der Hase); compare here both wr and mnt denoting 'swallow' (Ch.17). The name is rare, appearing twice in the Middle Kingdom (both examples at Beni Hasan) and once in an 18th dynasty stela. In the latter the hare is one of a number of animals hunted by the pharaoh in Syria-Palestine, (see also gha, mist and is hmw discussed in other chapters) and the Beni Hasan representations (together with many others where the animal is not named) indicate that this was a sport also pursued in Egypt. Neither name survived into Coptic when the term applied to the hare was ṣpab w ʾy, a borrowing of a Persian word meaning literally 'with asses ears'.

At least four subspecies of Lepus capensis L, the Brown or Cape Hare, were recorded from Egypt by Setzer. A sub-Saharan species Lepus crawshavi de Winton may also have occurred in ancient Egypt. Darby & Ghalioungui stated of shft: 'it is probable that these animals were either hares or wild rabbits'. Rabbits (at least those of the genus Oryctolagus) are, however, not indigenous to Africa, and the rabbits which do occur there today are descended from imported stock. Rabbit should not, therefore, be considered as a translation of shft.

The hare played only a modest role in Egyptian mythology and it appeared once in the Pyramid Texts as a term of abuse. Plutarch and Horapollo recorded that its speed and alertness were the reasons for its significance to the ancient Egyptians.
äwšt (Not in Wb). The skins of a lion and a äwšt are listed together with giraffe-tails and giraffe skins in the Nauri Stela. From the orthography it appears to have been a loan-word.

ä...m (Not in Wb). Possibly an animal name, being preceded by ḫa 'excrement' in a medical papyrus. However, the text is far from clear. The editor did not read a 'cow's-skin' or other animal determinative at the end of the word and the published photographs do not allow the reading to be checked.

äspt (Wb IV, 537, 9: Substantiv). This may be an animal name as it has the 'cow's-skin' determinative but the context is so broken as to preclude any serious attempt at translation. Earlier in this text the addressee is compared with a lion; the -k which precedes mI äsp.t may indicate that this was a similar comparison.

äšbt (Wb IV, 557, 10: Art Tier im Zauber). The term occurs once in the Harris magical papyrus. Lange did not translate it, commenting: 'Die beiden fremdartigen Wörter sind als Tiernamen determiniert. Vielleicht sind sie doch nur magische Wörter'. This was also the opinion of Chabas.

ät (Wb IV, 559, 1: ein Tier). The word appears only in toponyms, the determinatives of which show a pair of animals. They have been considered to belong to the dog family, but a recent publication of a relief from Giza shows the animals copulating, and they are clearly not dogs but some small desert mammal (compare hmt and prt, Ch.13); Brovarski suggested: 'Perhaps the ratel or honey badger is intended or some allied genus'.

äd (Not in Wb). See ĝā (Ch.14); ġā appears to be a miscopying of this word.

kīrī (Wb V, 116, 8-10: ein Tier (aus Nubien), with the note: Wohl identisch mit kīw, Affe). This word was originally read 'kamas(l)' by Chabas and was, therefore, considered to be the antecedent of Coptic ΚΑΜΟΥΛ 'camel', demotic ϘΜΥ, a loan of Semitic gimel. This reading was rejected by Lefébure; he transcribed the word kari, which he translated 'mule or wild ass'. Loret translated 'chèvres', comparing Coptic ḫ dł (16). Wb, on the other hand, compared it with the ancient Egyptian kīw, which appears with a monkey determinative in a tribute list. Separately listed from kīw by Wb, but again similar, is the
term k3vk3V which also shows a monkey determinative and appears on an ostracon over a monkey watching a child dancing. This may be compared with the almost identical k3k3 also found on an ostracon.\textsuperscript{46} k3w and k3k3 are, therefore, attested with certainty as the names of monkeys. (For further discussion of these terms see Ch.10: Monkeys).

Kirv is more difficult to identify. It occurs as a personal name\textsuperscript{47} but only infrequently in other contexts.\textsuperscript{48} From these it appears that the kirv was found in Nubia and understood speech.\textsuperscript{49} It could also be taught to dance.\textsuperscript{50} In another text it appears parallel to the horse (ssmt) and dog (tem). It is said to be able to carry a mkr (Wb II, 159, 4: Gefäss?) which its mother could not do\textsuperscript{51} presumably to emphasize that this was an acquired skill, similar to its ability to acquire the understanding of speech, like the horse's submission to traces and the dog's understanding of orders. Caminos\textsuperscript{52} compared Aelian's record that monkeys could be taught to read and play musical instruments.

Concerning the identification of the kirv as a monkey the following may be noted: 'The so-called patas "dance", referred to in non-systematic descriptions of captive individuals, is presumably the stereotyped pivoting back and forward on straight limbs that occurs in some caged animals....'; '....it appears.... to be a frustration response in a very active animal'.\textsuperscript{53} Walker\textsuperscript{54} also noted: 'Captive patas have been observed to express pleasure by dancing on all feet, quite similar to the behaviour of guenons (Cercopithecus)'. The hbl, hʊ and ḫʊh 'dancing' of the baboon (k'ɪn and ḫɪn-hːt) may also be compared. (See Ch.10).

A reduplicated form kirv-kirv occurs in a text from Madâmûd. Drioton\textsuperscript{55} translated the phrase in which it occurs: 'Les dromadaires(?) te fêtent (9) avec du bois sepen', which seems difficult to comprehend. The kirv here appears in parallel with another unidentified animal, k3w, which is associated with the name of another type of wood (ssdm). Perhaps both were tree-dwelling creatures; this would be consistent with the translation of kirv as a type of monkey.

Kirv has also been compared with Coptic ϚΣ and demotic kl.\textsuperscript{57} In one demotic text\textsuperscript{58} its dung smeared on the phallus is said to secure the love of a woman slept with. In another it is said to eat fruit.\textsuperscript{59} Cannuyer\textsuperscript{60} believed these references to indicate that kl was a baboon, a frugivorous animal noted for its sexual activity, and this was also the opinion of Smith.\textsuperscript{61}
**Wb** (Wb V, 116, 10) included under *Kirv* a word spelled *Kir* from the Mut ritual recorded in a Berlin papyrus. This *Kir* is mentioned in the context of dancing, but Brunner-Traut, in her study of dance in ancient Egypt, was at a loss to explain the extract. It should be noted that the word *Kir* also appears in a Brooklyn papyrus describing snakes. (See Ch.19: Reptiles). Sauneron identified it, from the description given in that papyrus, as a chamaeleon. Whether the Mut ritual contains this spelling in error for the dancing *Kir*, or whether *Kir* could designate an animal other than the chamaeleon (cf *Davy*-bird and *Dav*-bat; *Gdy*-bird and *Gdy*-snake; *Abnn*-bird and *Abnn*-fish) cannot be deduced with certainty; in any case it seems strange that a chamaeleon could be described as 'dancing'.

There is also a toponym *Kirv/Kry* which may be related to this animal name.

*Knmt* (Wb V, 132, 8: ein Tier im Kampf mit Pavianen). As an animal name *Knmt* occurs only once, in the Pyramid Texts, as a creature inimical to baboons. Sethe believed the *Knmt* to be a leopard: 'Die in einer großen Herde lebenden Mantelpavian sind oft von einem einzelnen reißenden Tier *Knmw.t* getötet worden, und manchmal auch wieder dieses durch sie... Dieses nimmt Bezug auf die Feindschaft zwischen dem Pavianen und dem Leoparden, die oft zu erbitterten Kämpfen zwischen beiden Tieren führen, mit wechselnden Ausgang dank der ungeheuren Muskelkräfte und der gewaltigen Zähne der männlichen Paviane.'

The enmity of leopards and certain monkeys is almost legendary and is often cited in zoological works. Kingdon noted, for example, that: 'During daylight, baboons will unite and chase leopards. On several occasions I have called up the large males of a troop to within a few metres by imitating a leopard's sawing. Kortlandt (1967) has filmed chimpanzees belabouring a stuffed leopard put in their pathway,' and again: 'baboons have been photographed attacking in concert a stuffed leopard, and there are three published accounts of leopards being killed'. This association was also mentioned by Walker: 'Hamadryas baboons are heavily preyed upon by leopards'; 'Their main enemy is probably the leopard, although several old males are usually a match for this powerful carnivore. An adult male baboon is a powerful and courageous animal'. Schultz too noted: 'Such terrestrial species as baboons, geladas and some macaques, living in open or nearly treeless regions, congregate at dusk on carefully selected ledges, niches or
even in shallow caves on high rocky cliffs, inaccessible to their most feared enemy, the leopard, which stalks its prey in the dark."

Rowell\cite{71} has asserted that this position is exaggerated, believing rather that: 'Sometimes, especially on clear moonlit nights, they [the monkeys of a troop] will perhaps spot a leopard moving through the forest, and scream and bark at it... The noise made by an excited or infuriated baboon sounds to us as if it is protesting at being torn limb from limb, and I believe it is such occasions as these which have given rise to the unshakeable myth that leopards prey extensively on baboons. There is no other evidence, at least for central Africa, that any of the cats take any more than the very occasional young straggler' and: 'There were lions, leopards and hyaenas which could have eaten the baboons, but apparently didn't'. Kummer\cite{72} noted the presence of 'Lions, leopards and cheetahs' near hamadryas baboons in his study area, but no interactions between the species.

A number of the baboon's predators are listed by DeVore and Hall\cite{73}: 'Life on the ground exposes baboons to predation far more than is true of arboreal monkeys. In East and Central Africa today, and over most of Africa before the expansion of human activity, the predators included lions, leopards, cheetahs, hyaenas, jackals, wild dogs, and raptorial birds.'

From an Egyptological view-point the main objection to the identification of the knmt as a leopard (or indeed lion or cheetah) is that Egyptian already possessed words applicable to these animals. B\text{h} (later j\text{by}) 'leopard' is itself attested in the Pyramid Texts, as well as elsewhere in the Old Kingdom, as is m\text{Î}, 'lion'. (For further information see Ch.9: Lions and Other Cats). The same may be said of hyaenas (h\text{Î}t) and jackals (s\text{Î}h, w\text{Î}n) (See Ch.5: Dogs and Similar Animals).

'Dog' has also been suggested as a translation of knmt. Ember\cite{74} compared Hebrew keleb, Arabic kalb, Aramaic k\text{Î}b and Assyrian kalbu 'dog' and Mehri koub 'wolf'. This would accord reasonably well with DeVore and Hall's 'wild dogs' (see above); Brehm\cite{75} too stated that dogs hunted baboons. Sethe\cite{76} took Ember's proposition into consideration though rejected it: 'Neben dem Leoparden soll der Hyänenhund\textsuperscript{77} der vorzüglichste Feind der Paviane sein, da er aber nur in Rudeln jagt, unser Text aber deutlich ein Einzelwesen voraussetzt, wird der Leopard gemeint sein und zwar ein Weibchen.'
Without additional evidence from ancient Egyptian sources it is difficult to provide an adequate interpretation of \( \text{knmt} \), though the translation 'leopard', commonly quoted,\(^78\) seems unlikely.

\( \text{kps} \) (Not in \( \text{Wb} \)). The word, from a Deir el-Medina ostracon,\(^79\) has a 'cow's-skin' determinative and thus may be an animal name; the text is, however, incomplete so this must remain a suggestion.

\( \text{kn...} \) (Not in \( \text{Wb} \)). Occurs in the phrase 'excrement of a \( \text{kn...} \)' in a medical text.\(^80\) The rest of the word is lost. The phrase was read by Dawson as \( \text{jg kk} \) and translated 'the brain of a \( \text{kk...} \)'.\(^81\) (See \( \text{kkt} \) below).

\( \text{krlw} \) (Not in \( \text{Wb} \)). See \( \text{klry} \) above.

\( \text{kkt} \) (\( \text{Wb V, 142, 10: ein Tier} \)). According to P.Ebers\(^82\) this animal could be prevented from eating corn in a granary by smearing the walls and floor of the granary \( \text{hr \ ltnw:sn \ hr \ mw} \). \( \text{Wb. Prog.} \) translated the sentence: 'werde bestrichen seine Wände, seine Fußboden an ihren Löchern (\( \text{ltnw} \) mit Wasser'. Harris,\(^83\) however, understood \( \text{ltnw} \) as 'dung', after Loret.\(^84\) He rejected Loret's translation of \( \text{kkt} \) as 'bats' as bats do not eat corn, though neither do the 'geckos' which he proposed because of the onomatopoetic sound of \( \text{ktt} \).\(^85\) It is, of course, possible that the Egyptians believed that the \( \text{kkt} \) ate corn whereas in fact it did not. Ebers and Štern translated \( \text{kkt} \) as 'sorex', mouse;\(^86\) some small rodent pest does seem to be most likely, though it should be noted that elsewhere \( \text{hftt} \) 'snakes' are noted in amongst grain.

Dawson considered \( \text{kkt} \) to have been a 'weevil', in view of the means used to eradicate them,\(^87\) and it is tempting to compare here Coptic \( \text{m} \text{k} \text{nt} \text{e} \) 'louse'.\(^88\) Dawson wondered, too, whether this was the same animal as appears in another medical text; there he read 'the brain of the \( \text{kk} \) but decided that \( \text{kkt} \) must have been a separate word, the brain of a weevil being an impossibly small ingredient.\(^89\) The Coptic word may well be derived from an entirely different word, \( \text{ktt} \) (not in \( \text{Wb} \)), which has an insect determinative and seems to have meant 'louse'. (See Ch.20: Insects).

\( \text{kidvt} \) (\( \text{Wb V, 15, 4: ein Tier} \)). Another term from the medical texts with 'cow's-skin' determinative and thus perhaps an animal. Here its 'insides' (\( \text{jmy} \)) are used to cure an eye-complaint.\(^90\) The same word may occur in a Deir el-Medina ostracon.\(^91\)
\textbf{khhwt} (\textit{Wb V}, 67, 5: Tiere, die statt Rinder geopfert sind).\textsuperscript{92} Probably not 'instead of' (as \textit{Ht}) but 'from among' - compare the parallel phrase \textit{wān.n.} (il nā k srw m įpndw : 'For you I have wrung the necks of \textit{sr}-geese from among the birds'. \textit{Khhwt}, unattested elsewhere, would thus name a type of cattle.

\textbf{gh} (\textit{Wb V}, 190, 14: ein Tier). From the context, a prescription including the \textit{db} (horn) of the animal, it seems likely that this word is a miswriting of \textit{ghē} 'gazelle'. (See Ch. 2: Antelopes and Similar Animals).

\textbf{gsfnw} (\textit{Wb V}, 206, 8: kleines Wüstentier). The \textit{gsfnw} was identified by Keimer\textsuperscript{93} as the Cape or Striped Polecat or Zorilla \textit{Ictonyx striatus} (Perry), and by Aufrere as the Libyan or Saharan Striped Weasel, \textit{Poecilictis libyca} (Hemprich & Ehrenberg)\textsuperscript{94}. Both are striking black and white striped mustelids, the former found throughout the northern and southern African savannas down to the Cape\textsuperscript{95}. The word occurs over representations of the animal in the sun-temple of Niuserrē at Abu Ghūrāb; in all three named depictions it is giving birth to young\textsuperscript{96}. In one case the name is qualified by \textit{ānh}, equated by Edel and Keimer with \textit{ānh} 'stink' (\textit{Wb I}, 29, 19: Adjektiv und Verbum Übler Bedeutung (vom Geruch der Leiche uä)) and taken by them to refer to the foul-smelling secretions of the anal stink glands common to various mustelids and most notorious in the skunk\textsuperscript{97}. Keimer supposed that the name was non-Semitic in origin\textsuperscript{98}.

\textbf{ggj} (\textit{Wb V}, 208, 8: ein kleines Tier). From the statue of Djed-Hor, Daressy translated 'un renard?' without justifying the interpretation, and was probably wrong. A much smaller animal seems to be required by the context - cf perhaps \textit{pogjt}. (See Ch. 19: Reptiles and Amphibians). (See also \textit{snbtt} above).

\textbf{tiwd} (\textit{Wb V}, 260, 15: Art Schurz). Like \textit{hn} and \textit{hatt} (see above) this word occurs in Old Kingdom clothing lists and may designate a member of the dog or cat family. (See \textit{mas}, Ch. 13).

\textbf{tnbh} (\textit{Wb V}, 311, 7-12: Alt mit einem unbestimmmbaren Tier determ... verwirrt sein, bestürzt sein uä). Gardiner\textsuperscript{99} and Vogelsang\textsuperscript{100} supposed the determinative to show a hedgehog, though this was rejected by zu Hülshoff\textsuperscript{101}. The animal drawn has a long tail (in one case) and long legs but does not closely resemble any particular creature.\textsuperscript{102}
The term is listed among other animals in the Ramesseum Onomasticon. The $\xi$ is only partly preserved and the traces would also suit a reading of $\tau$. One is therefore led to compare it with $\tau$ (Wb V, 231, 4: ein Opfertier) attested otherwise as an animal only in Ptolemaic texts. (See Ch.2: Antelopes and Similar Animals, for further discussion).

It follows (papyrus) in a medical papyrus and may be another animal name, though it might simply mean 'male' (Wb V, 345, 14-19: ...männlich).

d$\text{rpm}$ (Wb V, 568, 8: Art böses Tier). This term appears only in the Harris magical papyrus in parallel with another unknown animal, $\text{bg}$ (see Ch.13). To render them harmless the text expresses a wish that their mouths be shut; this would put them in a similar class of animals as the lion, jackal and bear against which the same wish is directed in this papyrus. However, the appearance of $\text{hw}$ (see Ch.13) with the animals d$\text{rpm}$ and $\text{bg}$ may indicate that this group was of a different sort. Chabas noted that: 'ce mot a une physionomie arameenne, mais rien ne peut préciser l'animal auquel il se rapporte'. Shisha-Halevy compared the -m ending with the Hebrew plural -im (cf sasmt 'horse' from Hebrew susim 'horses'), the singular form being preserved in a personal name. He noted a similar Hebrew word $\text{spix}$ 'young he-goat' and also $\text{spr}$ 'bird', though neither of these seems suitable as a translation of d$\text{rpm}$. 
The birds of ancient Egypt constitute the subject of an extensive recent study by Houlihan and Goodman. A complete list of the species found in modern Egypt is given in their work, among them some 100 water birds, and many of these species were identified by them from ancient paintings.

Waterfowl were of particular importance to the ancient Egyptians as a source of food, and many terms for these birds can be found in lists of offerings on tomb and temple walls. (The offering lists are so numerous that only exceptional examples will be recorded here). One group of five birds, comprising two species of goose, two ducks and a pigeon, was particularly common. From the small number of good representations of this group which have survived it may be ascertained that the species in question were the Greylag Goose, Anser anser (L), the White-fronted Goose, Anser albirostris Scopoli (tp), the Pintail, Anas acuta (L), a brown duck with dark eye stripe and white speculum as yet unidentified, and the Turtle Dove, Streptopelia turtur (L).

The frequent attestation of this group of birds throughout Egyptian history means that the development of variant writings can easily be traced. Some of these writings appear to be mere abbreviations, for example, t, td or tr for trp, while others may indicate real changes in pronunciations, or, perhaps, the rise to popularity of new species with similar names.

Most confusing among these writings are sr and srw. Wb equated sr (Wb IV, 191, 17-192, 4: Art Gans) with both s (see the Belegstellen to Wb IV, 191, 7), which only appears in the fourth position among the five terms, and with srw (Wb IV, 191, 16: Art Gans and Belegstellen to IV, 192, 4), which in Wb's own examples occurs only as the first term of the five. The examples of sr recorded by Wb include words occurring in either first or fourth position in the lists, and, occasionally, in neither.

The writing srw was always rare and did not survive the Old Kingdom, and sr as a variant of r also became less common during this period. However, sr written with the 'bolt' sign (Sign List 034), appeared from the Old Kingdom onwards as a variant of the fourth term, r. Later this fourth term was also written art or sry (compare...
also srwt \(^{15}\) and is therefore likely to have been the prototype of the srīt equated by Černý \(^{16}\) with srw, and likewise by Caminos with 'old sr(w) "goose"'. \(^{17}\) This writing srīt is recorded separately by Wb under srt (Wb IV, 192, 5-7: in der Opferliste für älteres sr). This writing occurs in the name of a goddess who may or may not be associated with the birds in question, \(^{18}\) but a further attestation shows srt in a list of offerings preceding s. \(^{19}\)

It appears, therefore, assuming the species of the lists to be unaltered, that the terms srw and sr (written \(\text{\textit{sr\textsuperscript{\textbullet}}}\)) are variants of sr, \(^{20}\) which takes precedence after the Old Kingdom, and that sr and srw (written \(\text{\textit{sr\textsuperscript{\textbullet}}}\)) are variants of s, \(^{21}\) replacing it entirely from the Middle Kingdom onwards.

The k (Wb II, 393, 1-6: Gans) and the s (Wb IV, 1, 5-6: Art Gans) both occur in contexts other than the offering lists. \(^{22}\) Both birds were kept as domestic animals \(^{23}\) — the k sometimes appeared separately as a r-ss (Wb V, 631, 8: satt Vögel) or r-hptn 'fat(-tend) k', \(^{24}\) r-hd 'reared k' \(^{25}\) (hd could also be used of other birds) \(^{26}\) and hr-ht-n-k 'on-its-belly k' showing a fattened goose \(^{27}\) (cf the use of hr-ht-sn to describe snakes). The phrase 'live k' also appears in offering lists. \(^{28}\) The existence of a r-hd 'white k' \(^{29}\) is further evidence of their domestication, as domesticated animals show albino forms more commonly than wild populations \(^{30}\) (though the r-hd may have been a naturally occurring albino). Wild k from the marshes were also mentioned. \(^{31}\) The k appears as an item of payment, \(^{32}\) in a mathematical calculation, \(^{33}\) as the shape of a loaf, \(^{34}\) once in the medical texts \(^{35}\) and cooked \(\text{\textit{psd}}\). \(^{36}\) It is compared with the soul. \(^{37}\) The word survived into Coptic as po, 'goose'. \(^{38}\) The s is far less commonly attested outside the offering lists but once occurs in a curse formula. \(^{39}\)

The third term of the group of five, usually written st \(^{40}\) (Wb III, 407, 16-17: Art Gans oder Ente... Ursprünglich wohl sšt und das Wort, von dem das Zeichen \(\text{\textit{sš\textbullet}}}\) seinen Lautwert sš erhalten hat...), but once written s (for sš?) and once stv, \(^{41}\) is very well attested. \(^{42}\) Sš is also attested in the Middle Kingdom in the same text as st, \(^{43}\) though this may be an entirely separate word. (See Ch.16: Birds of Prey). In the offering lists it shows a variant mst \(^{44}\) (Wb II, 136, 4) which may be compared with the similar msvt \(^{45}\) (Wb II, 143, 3: Art Wasservogel), once written 'msvt. \(^{46}\) The position of mst/msvt in the offering lists is confirmed in P.Brooklyn 47.218.50 where it appears after the msn (a goose) and before the Cnt and the mnwt (a pigeon). \(^{47}\) A further writing
msw may also denote the same bird. In svt and at both appear on jar labels from the same source in the New Kingdom which would indicate that they denoted different species despite the offering list examples where one name replaces the other.

From good representations the at can easily be identified as a pintail. In one particular instance both male and female pintails are drawn; the females are called at but the males hp (Wb III, 69, 19: Art Ente). Hp is recorded elsewhere with male pintail as determinative but usually male pintails are drawn under the name at. The terms also appear in connection with the otherwise unattested mái (Wb II, 24, 8: Art Ente) and jät (Wb IV, 529, 12: Art Geflügel: Ente öä). The phrase k3w nw at of the Coffin Texts has been taken to mean 'pintail drake' (lit. 'bull of pintails'). This may indicate the date at which hp ceased to be used for the drake. In another, early, text the drake appears to have been termed nh.

The remaining water-bird of the group of five is the trp (Wb V, 387, 6-9: Art Gans oder Ente), the most consistently used and written of the set though, as mentioned above, the abbreviations/variants t, tr, and tr are known. The word has been compared with Coptic 'stumble'. The trp is shown being fattened and is mentioned among foodstuffs. It appears twice in the medical texts.

Hd (Wb III, 210, 9: Art Gans) has already been mentioned as an epithet of t, but some texts show the hd independently, following the trp in offering scenes; in the tomb of Ti the trp and hd are being fed in the same enclosure. In other scenes the hd is drawn after the dnw which follows the trp and it is to be concluded from this that it was a smaller or less important bird than these, though evidently bigger than the smn.

The dnw (Wb V, 575, 4: Art Gans öä) can be seen from the representations to be another goose, similar in size to the hd and trp. The later word dndn (Wb V, 580, 2: Art Geflügel) should probably be equated with this term because of its similar position in offering lists. (Compare the forms wn/wnwn, gb/gbab discussed below). The dndn was identified by Helck as a swan, an identification later confirmed by Störk. Störk compared the word with Coptic XN XN 'sing', and noted the voice of the Whooper Swan (C. cygnus (L)) or the musical notes made by the wings of the Mute Swan (C. olor (Gmelin)) in flight as supporting evidence for this identification. The Coptic term for the

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swan (as recorded by Crum) was merely 'white bird'. Helck also suggested that the dndn may have been a new species of bird introduced into Egypt in the Middle Kingdom, but given its similarity to the word gnw, it seems to have been identical with the goose of the Old Kingdom. (Compare also the dnd, a duck, discussed below).

Other terms which have been taken as the name for the swan are ḫk (see below), ḫt (see ḫhw, Ch.16: Birds of Prey; translated 'swan(?)' by Griffith without justification) and nhnt (Wb II, 312, 7: ein Vogel). This latter occurs in a proverbial phrase at el-Amarna: 'Set him there until the nhnt becomes black and the enfrw becomes white' (see further under enfrw, and nhnh, Ch.17: Miscellaneous Birds). Swans were represented a limited number of times in ancient Egypt - these representations were collected and commented upon by Vandier d'Abbadie - and the bird in question has generally been identified as the Whooper Swan (C. cyanus (L)); Houlihan and Goodman suggested that the Bewick Swan (C. bewickii Yarrell) may also have been known in ancient times.

Another goose, the smn (Wb IV, 136, 2-4: Art Gans), fem. smnt, surviving in Coptic as CMoYN despite occasionally appears in addition to the group of five birds as offerings, and often occurs in more extensive offering lists. This bird can be identified from representations as the Nile Goose (Alopochen aegyptiaca (L)), which was the subject of a detailed study by Kuentz. In one relief it is described as 'giving birth'. In other texts it is recorded as a bird of the marshes which could be a pest in the fields and in the medical texts - a domesticated example may appear in the Westcar papyrus - but is most frequently attested in mythological texts. The deceased could reach heaven in its form. It is closely associated with Amun and appears in certain magical ceremonies. The noise it makes (nagg) is often referred to; this word is also used as a substantive (Wb II, 350, 13-14: Art Vogel), especially in the phrase nagg wr, once nagg wr (Wb II, 349, 9) and it is to be supposed that the nagg and smn refer to the same bird, as the nagg is also associated with Amun. (For a similar phenomenon see ḫn and ḫtt, Ch.10: Monkeys.) Smn also appears as a personal name.

A further bird name attested from Old Kingdom offering scenes is gb (Wb V, 164, 5: Art Gans - gbb); the word appears in a New Kingdom text as gbw. A form gbb is recorded in a late Old Kingdom papyrus, and may be the same bird. Gardiner identified the gb (Sign List G38)
as *A. albifrons*, the White-fronted Goose, taking it to be the determinative of the names of other species of goose and also of 'bird' which eventually replaced all other determinatives specific to individual birds. 97 As mentioned above the *trp* has been identified as *A. albifrons* but it is difficult to offer a realistic alternative translation of *gb* while no coloured representations are extant. 98

Another term to be mentioned here is *q3ibt* (*Wb* V, 149, 13: Art Vogel) from Beni Hasan. 99 (The name was read *qimbt* by Montet). 100 The bird is almost invisible now though the red bill noted by Wilkinson, Rossellini and Champollion is still visible, and the wing appears noticeably lighter than the bird's body and head; the green wing covert, breast and tail noted previously are still in evidence. 101 The bird is not inconceivably a goose (its general shape is goose-like though its colouring is not like that of any goose now found in Egypt 102); Davies described it simply as an 'Aquatic bird of some sort'. 103 (For the bird *q3m3* see Ch. 17).

A number of other words may be identified from the reliefs or texts as denoting waterbirds.

The *ht3* (*Wb* III, 342, 1: Art Gans oder Ente), known only once from an Old Kingdom context, but frequently attested after this period, was depicted in the tomb of Ti being fed with grain together with various other waterfowl. 104 It was named with other such birds in New Kingdom offering lists, 105 while in the Middle Kingdom it appeared in parallel with the *smn* as the object of a magician's spell. 106 It was apparently a type of goose, but without coloured representations it is not possible to determine the type. 107

*Wb* defined few other words as designating geese: *st3* (*Wb* IV, 337, 4: Gänse oä), which should probably be read as 'choice examples of' the goose depicted, 108 *htm* (*Wb* III, 196, 7-8: Art Gans) and *hir* (*Wb* III, 232, 3-4: Gans oä) both found only in the names of stretches of water in the Pyramid Texts, and Coffin Texts and Book of the Dead. 109 A Late Period word *ht* (not in *Wb*) 110 may be compared with *htm*, though its determinative shows a heron-like bird.

A bird named *nt* and depicted at Beni Hasan was also identified as a goose by Davies; the bird is not well preserved though was apparently white and has the form of a goose. 111 Houlihan and Goodman recorded eight species of goose from modern Egypt. Three of these can be
identified from ancient representations as the birds ḫtr, ṭȝp and ẖmn. ḫnw, ḫḥ(b), ḫkt and ḫt-ẖ may well also be species designations, though ḫḥ, and possibly also ḫḥr and ḫtm, are probably not.

\textit{Wrd} (\textit{Wb} I, 336, 17-18: Art Ente oder Gans) appears in a list of birds from the New Kingdom, where it is included among ḫnw-n-mw 'waterbirds'.\textsuperscript{112} A variant 'yellow-billed' type (wrdw-fnd-n-nwb; \textit{Wb} II, 239: Art Geflügel; I, 578, 1: 'mit goldener Schnabel' dh. gelbschnäbelig, von einem bestimmten Geflügel) is also recorded,\textsuperscript{113} though it would also be possible to read fnd-n-nwb separately as the name of a different type of bird.\textsuperscript{114} Wrdw (\textit{Wb} I, 336, 18: auch allgemein für Sumpfgeflügel) were elsewhere associated with Ptah.\textsuperscript{115} The plural form appears in a list of birds associated with particular stretches of water,\textsuperscript{116} and here again would appear to denote a particular species. Another text, where these birds are described as 'winged' (ḏḥḥ, 'tied at the wings'), neither confirms nor denies this.\textsuperscript{117} In one case wrdw occurs in parallel with ḫnw 'fish'\textsuperscript{118} and could thus be taken as a general word for birds, as \textit{Wb} proposed.

The pḥt (\textit{Wb} I, 542, 6: Art Ente oder kleine Gans) var. ḫḥ and ḫḥt (not in \textit{Wb})\textsuperscript{119} or ḫḥt (\textit{Wb} III, 258, 1: Art kleinen Vögel), held a varying position in lists of ducks and geese, often alternating with the pintail (ḡt/ḥp). The bird was represented several times in the Old Kingdom\textsuperscript{120} as a short-necked duck with a somewhat hunched appearance.\textsuperscript{121} It appears from scenes at Abūṣīr to have been migratory to the Delta;\textsuperscript{122} this is a characteristic of a number of small ducks, so does not allow a more specific identification.\textsuperscript{123}

\textit{Wb} recorded under ḫ (\textit{Wb} I, 490, 4: Name eines Vogels) a bird from the offering list in the Festival Hall of Osorkon,\textsuperscript{124} suggesting that the name could be read ḫḥ.\textsuperscript{125} Pḥt (var. ḫḥt) may be the original form of the later word.

The variant writing ḫḥt is to be distinguished from ḫnw\textsuperscript{126} (\textit{Wb} III, 259) as the latter is recorded in a text as the prey of peregrines (see bḥk), which do not take prey as large as ducks.

Another duck, the bḥba (\textit{Wb} I, 477, 1: Art Gans oder Ente), is shown in one relief with a striking fanned tail\textsuperscript{127} and in another without this characteristic but with a ringed neck.\textsuperscript{128} The word is also attested at Abūṣīr.\textsuperscript{129} Hilzheimer\textsuperscript{130} identified the bird from the reliefs as the White-headed Duck, \textit{Oxyura leucocephala}, one of the
'stiff-tailed ducks' which has, as the beba sometimes does, a characteristically upright posture when on land. Boessneck,\textsuperscript{131} on the other hand, identified the beba as a Mallard, \textit{Anas platyrhynchos}. The term may also be read from a fragment of papyrus listing birds' names; the surviving letters be should probably be completed as beba.\textsuperscript{132} The word survived as a designation for a duck into Coptic.\textsuperscript{133} Beba is also preserved as a verb,\textsuperscript{134} as the action of another duck, the \textit{wadj-hat} lit. 'green-front', which itself has been identified as a Mallard. The \textit{wadj-hat} (\textit{Wb I}, 270, 1: 'mit grüner Brust' als Name einer Entenart) is depicted with various birds and plants at Beni Hasan,\textsuperscript{135} and appears with the same birds in the Coffin Texts,\textsuperscript{136} in a list of provisions for the temple of Amun,\textsuperscript{137} and among birds brought from the marshlands.\textsuperscript{138} Grapow's suggestion\textsuperscript{139} that this phrase designated the Mallard which does indeed seem plausible.\textsuperscript{140} The posture of the beba shows that it was not a Mallard; the absence of a real ring on the neck of \textit{O. leucocephala} also calls into question Hilzheimer's identification.

Also to be considered here is the 'green' bird \textit{wad} (\textit{Wb I}, 268, 7: Art Geflügel). The name is attested only once prior to the Ptolemaic period,\textsuperscript{141} though an \textit{wd} \textit{wad} (lit: 'green bird') is known from the Pyramid Texts. The \textit{wad} appears in an offering list together with \textit{mnvt} 'pigeon'; it is presumably to be distinguished from the \textit{wadj-hat}, but it is difficult to decide what species could be meant by the name 'green'.

A duck with a pronounced upright posture is the \textit{wnwn} (\textit{Wb I}, 317, 15: ein kleiner Vogel);\textsuperscript{142} the writing \textit{wn} (\textit{Wb I}, 307, 10: Art kleiner Vogel) is probably to be deleted.\textsuperscript{143} (For reduplication in another bird name see \textit{gh} and \textit{ghh} above.) In one relief (where it is called \textit{wnn}) its wings are shown in an undeveloped state like those of a chick.\textsuperscript{144} Meeks, therefore, translated it: 'un oiseau, ou peut-être une désignation de "l'oisillon", du "poussin"'.\textsuperscript{145} It was identified by Schäffer as a coot or moorhen or type of tree duck.\textsuperscript{146} Boessneck also identified it as a coot\textsuperscript{147} but it lacks the long legs and particular stance of this bird and the similar moorhen (for \textit{whf} identified as a coot see below); tree ducks do not occur in Egypt or northern Africa and this suggestion should also be rejected.\textsuperscript{148}

\textit{Bds} (\textit{Wb I}, 488, 10: Art Gans oder Ente) is another small bird shown in Old Kingdom tomb scenes.\textsuperscript{149} It may be compared with the similarly named \textit{bdw} (\textit{Wb I}, 488, 15: Art Kleiner Vogel) represented at Beni Hasan,\textsuperscript{150} which Davies could not identify but which Wilkinson named the 'Gutta', the Arabic name for the sandgrouse.\textsuperscript{151} The \textit{bdw} has
a reddish collar and may, therefore, be the Pintailed Sandgrouse
(Peterocles alchata (L)), now vagrant in Egypt, though no pin-tail is
drawn; the Chestnut-bellied Sandgrouse (P. exustua (Temminck)) or the
Spotted Sandgrouse (P. senegallus (L)) are also possibilities. A
bird named bdw also appears on the reliefs at Abüsir as a migratory
bird in the Delta. Edel believed it to be a type of pigeon. Sandgrouses are migratory but inhabit arid and semi-desert land so
the bdw at Abüsir may be a different bird, also to be distinguished
from the bdw which is certainly a duck.

The sbh (Wb IV, 91, 8: als Name eines Geflügels) is also
represented at Abüsir. Edel identified it as Allen's Gallinule
(Porphyrio alleni Thomson), a name already suggested for the sbh at
Beni Hasan. The sbh, the name of which doubtless means 'shrieker' (Wb
IV, 90, 11-17: schreien), is also depicted in other Old Kingdom
reliefs. Allen's Gallinule is not particularly noted for its voice;
a more suitable 'shrieking' bird of a similar type would be the coot
(see also wht below) or moorhen.

Three more water birds depicted at Abüsir were the ft (not in
Kb), the wht (Wb I, 350, 15 : Art Ente) and the m, not an owl but
possibly to be compared with a Late Period word denoting a water bird,
im (Wb I, 78, 5: Name eines Vogels).

A word hrt occurs in a list of bird names from the Middle Kingdom,
following as 'pintail' and preceding kk.. (see Ch.17) and wht (see
below); the term hriw (Wb III, 146, 14: Art esbares Geflügel), which is
mentioned elsewhere with the mst (possibly a later writing of as
'pintail') and the pfrt 'quail', may be another variant writing. Keimer
noted that it 'semble être un canard', which, from these
contexts, does seem to be the case. The wht is also depicted at Beni
Hasan; Davies identified it as an 'Aquatic bird of some sort'. It
is probably a coot, though the bill lacks this bird's characteristic
white shield; the shield may appear on other depictions of the wht. However, a bird determinative of lm-nr wht, 'overseer of fishermen'
shows a duck of hunched appearance with a pin-tail. Edel translated
der Klagende' or 'Jammervogel', comparing the verb IM 'weep' (Wb I, 77, 12: wehklagen, jammern); he suggested that the name was originally applied to the owl, but was later used to describe another bird which 'lamented'. Unfortunately this does not allow the type of waterbird named by IM to be identified.

From a coloured determinative of WäI 'force feed' (Wb I, 369, 2-5: mästen) the bird called WäSt (Wb I, 369, 1: Art Geflügel) in the tomb scenes can be identified as a widgeon (Anas penelope). It also appears in a Middle Kingdom list of birds, and as a form taken by Seth. The term can be restored from the WäSt surviving in the tomb of Hetepka (WäSt as a verb is also attested without the a), though Martin restored mäSt. Edel considered this a possible ancestor of Ptolemaic mäSt, Coptic mposéw; this name he translated 'die lichtenrote', which he considered a suitable description of the widgeon (presumably because of the bird's rufous head).

A few more bird names can be mentioned here as applying to waterbirds. WäSt (Wb I, 272, 6: ein Vogel) is known from one medical prescription and from the Greenfield Papyrus, with possible plural form WäSt, denoting a bird which was hunted. Dnt (Wb V, 472, 16: Name eines Vogels) is depicted at Beni Hasan as a bird with a reddish head and white breast. Dnt (?) (not in Wb) was noted by Mariette. None of these can be identified with certainty.

A few other bird names may refer to waterbirds, but likewise cannot be identified from the available evidence. The Dnt (Wb I, 10, 15: Name eines Vogels) of Beni Hasan may, from its position in the bird and bat scene there, be a waterbird though the reference in P. Edwin Smith to its 'claw', Dnt (Wb I, 188, 1-7: Nagel, Kralle), might indicate otherwise.

Breasted assumed from the second determinative of Dnt (two claws) that it was a two-toed bird, but the ostrich is the only two-toed bird and is clearly out of the question here (see Dnt for this bird). To Dawson this determinative 'seems intended merely to denote the grasp of any perching bird' and he supposed that the Dnt was chosen because of the pun on the Dnt(-bone ?) in the text; he believed the bones mentioned in the text to look nothing like a bird's claws.

Davies was unable to identify it from the Beni Hasan picture. Gaillard devoted an entire article to its identification, noting...
previous attempts to determine the species - Savis' Larus sp (Gull) and Boussac's Pterodroma ardea Paykull (Crab Plover). Gaillard himself identified the bird as Ardetta minuta (superceded), while Jéquier suggested Charadrius melanocephalus (superceded; C. sp are plovers).

**Hôbs (Wb III, 230, 9: Art Vogel im Sumpf), var. Hôbs (Wb III, 257, 1: Art Vogel)** has been translated 'diving bird' from late contexts where it is said to hôp 'sink down or dive' (Wb II, 500, 27-501, 4: untersinken im Wasser, untertauchen; einsinken; unterdrücken) and mhî 'fish' (Wb II, 131, 8-10: durchstossen). Others have suggested more specifically 'cormorant'. Prior to these Ptolemaic examples the word is attested in a medical text where the mouth of a child at the breast is likened to that of hôbsw-birds on the Nile - at a source of plentiful nourishment - and in the Coffin Texts. The hôbs is clearly a fish-eating water-bird, but the translation 'cormorant' is by no means certain.

Another bird name translated 'cormorant' (Phalacrocorax carbo (L)) is ëk (not in Wb). It appears in a punning phrase from the Coffin Texts but otherwise only as the phonetic sign for ëk (Sign List G35). Störk identified the bird of the hieroglyph as a Finfoot (Podica senegalensis Vieillot) after Boussac, though its hooked bill - and its current distribution - would better suit the original suggestion.

The ëtrdr (Wb I, 116, 16: Art Vogel) is known only from a single text concerning fowling in the marshland, in an unfortunately rather broken context. It is not possible to suggest a more precise translation than 'type of water bird'; Wb commented 'wohl Fremdwort', presumably because of the 'syllabic orthography'.

**Hâvt (Wb III, 16, I: Art eßbares Geflügel)** appears in a text which mentions a number of other birds: wrdw, mat, pꜳrw and hřiú. The whole text is concerned with a description of Memphis, and, in the passage, with the sort of foodstuffs which may be found there. Wrdw and mat can be identified as ducks/geese (see above); the pꜳrw has been identified as the quail, though no absolute proof for this exists (see Ch.17: Miscellaneous Birds). Hřiú is found only here, so cannot be translated, but was evidently an edible water bird. Hâlt, probably a variant of Wb's hâvt, appears on a papyrus fragment together with other bird-names. The phrase ḫr hâvt 'the face of a hâvt-bird' is found in
the Chester Beatty dream papyrus, but this may be a variant writing of a different word. In the following line of this papyrus, the dgrt is mentioned, the dr(v)l, a bird of prey, was often associated with Isis or Nephthys (see Ch. 16: Birds of Prey) and was sometimes accompanied by another bird of prey, the h3t. H3t also appears to have been the name of a water-bird, possibly a tern.

It seems therefore that h3t and h3vt named both a bird of prey, often associated with Isis, and a type of water-bird which was found in the Delta and was eaten (birds of prey were not eaten). H3vt was apparently the later writing (cf msrv for earlier ms for earlier ms above). The writings h3y and h3yw apparently apply to the bird of prey, but are to be differentiated from h3w, which may therefore denote the water-bird. Both names may have arisen from the birds' cry (cf Wb I, 6-7, 4: klagen).

Despite the similarity of their names, the determinatives of bn (Wb I, 457, 2-4: Art Vogel (Bachstelze?)) and bnv (Wb I, 458, 3-5: der Phönix) have been identified as depicting different birds—a wagtail and a heron respectively.

The bn seems to occur only as a phonetic sign, and is not used as the name of a species; bnv, on the contrary, is frequently attested. It has been suggested that this bird was a purely mythological beast, because of difficulties in identifying representations with any living species, but certain textual references, notably the use of the bird's plumes as an amulet, indicate otherwise. The bnv is mentioned together with other bird names as one of the forms which might be adopted by the souls of the deceased; as these other bird names are attested elsewhere as the names of species it may be inferred that the same was true of the bnv. The term should, therefore, be translated 'type of heron' (probably the Grey Heron, Ardea cinerea L) rather than 'phoenix', which has overtones of a different sort. Nevertheless, the phoenix legend may well have had its origins in the ancient Egyptians' associations of the bnv with the sun and planets and ideas of eternity.

The bnv was most closely connected with Re and his place of worship, Heliopolis (especially the area of Heliopolis called hwt-bnv). It also had close associations with other places and deities, notably Herakleopolis (but also elsewhere) and Atum, Osiris, Amun, Hathor, Horus and Anubis; a deity in the
Underworld was also called bvn. The bnv was mentioned in association with a particular tree and with the Nile. It was described as 'the sacred bnv whose name is hidden', and was worshipped independently in its own form a spell against its legs appears in a papyrus cursing various gods. A bnv of wax was included together with the four sons of Horus in a mummy's wrappings and its form was used to decorate scarabs and amulets. The bnv also gave its name to a constellation and appeared in the personal name bnvjw.

Four more birds written with a heron-like determinative were the ūntv (Wb IV, 519,1: Art Reiher), the nw (Wb II, 217,15: Name eines Vogels), var. nwr (Wb II, 223,5: Art Vogel), the ch[w (Wb I, 222,11: Name eines reiherartigen Vogels) and the ḫt-hsr (Wb I, 142,9: 'Vater des kleinen Kindes' als Name eines Vogels). Compare too the nm (Wb II, 263,5: Name eines Vogels), the rd (Wb II, 463,12: Art Vogel) and possibly also ḫm (Wb IV, 462,4: Name eines Vogels), from the 'festival hall' of Osorkon, all of which show heron-like birds as determinatives. Two further words, ḫw (Wb III, 136,13: in den Namen von Stern-göttern) and diuṭy (Wb V, 421, 6-7: Vogel mit Federn am Kopf in einer Götterprozession) were also written with herons as determinatives.

In one of the Coffin Texts the nwr is described as ūnty (not in Wb; translated 'lotus-haunting' by Faulkner) which itself appears as a bird name elsewhere in these texts.

Houlihan and Goodman recorded from modern Egypt twelve members of the family Ardeidae (herons and allies). Bnw, as seen above, may be identified as Ardea sp, and various birds identifiable with the smaller herons are given below. ūntv, nwr, ch[w and ḫt-hsr are perhaps, therefore, to be identified as egrets (Egretta sp) (note especially the 'cricked' necks of some species), though ch[w 'the stander' and ḫt-hsr 'father of children' may be descriptive rather than specific names. The nwr, depicted in a naturalistic setting in the Unas causeway, somewhat resembles one of these birds.

Another of the herons, the Night Heron, may be definitely identified from Egyptian paintings; at Beni Hasan it is named ḫrs[lw (Wb II, 399,3: ein storchartiger Vogel), more recently read (probably mistakenly) as ḫsw alone. The k3nw (Wb V, 105,2: Name eines Vogels), which is also depicted at Beni Hasan, was identified
by Davies as a Bittern (*Botaurus stellaris* (L)), though it could also be a Squacco Heron (*Ardeola ralloides* (Scopoli)); the name has been compared with Coptic *kàtai*. The *ad* (*Wh* IV, 365,12: die Rohrdommel) has likewise been translated 'bittern' (*Wh*), though also 'egret'; the shape of the hieroglyph resembles that of the Great White Egret (*Egretta alba* (L)). Another bird to be considered here is the *hnt* (*Wb* III, 105,8: Name eines Vogels), again represented at Beni Hasan; it has been identified as a kingfisher, but its legs are too long and it would be better compared with the Little Bittern (*Ixobrychus minutus* (L)).

Three ibises have been recorded from modern Egypt: the Sacred Ibis, *Threskiornis aethiopicus* (Latham), last reliably noted there in 1877, the Glossy Ibis, *Plegadis falcinellus* (L) and the Hermit Ibis, *Geronticus eremita* (L). Four terms for ibis species are recorded by *Wh*: *hb* (*Wh* II, 487, 1-4: der Ibis), *gmt* (*Wh* V, 166,5: der Vogel, den das Schriftzeichen darstellt: der Ibis), *thn* (*Wh* V, 326,25-27: der Ibis) and *ahk* (*Wh* I, 18,12-13: Name des Vogels (*Ibis comata*)).

The *ahk* and *gmt* are easily identifiable as the Hermit Ibis (from the 'ruff' shown on the hieroglyph) and the Glossy Ibis (from the characteristic posture of the bird well represented in the sign) respectively. Both names have been compared with verbs - *gm* (*Wh* V, 166,6-169,8: finden) and *ah* (*Wh* I, 13,7-14,25: herrlich sein, trefflich, nützlich). These etymologies reflect the Glossy Ibis' habit of probing mud to find food and the metallic sheen on the plumage of the Hermit Ibis. Neither name is common; the *ahk* is not named in a naturalistic setting (though two Hermit Ibises on stands are labelled *ahk*) but the *gmt* is depicted at Abü$3r among birds flying to the Delta. The Glossy Ibis does indeed winter in Egypt and the surrounding areas. The name also appears on a papyrus fragment. The 'uniform, almost black plumage' of the *gmt* was taken by the ancient Egyptians as a metaphor for dirtiness.

Like the *gmt* the *thn* is depicted at Abü$3r. It was identified by Edel as the Wood Ibis or Yellow-billed Stork, *Mycteria ibis* (L), widespread in Africa south of the Sahara, though *thn* has elsewhere been taken as a designation for the Sacred Ibis, like *hb*. In Ptolemaic texts *thn* is applied to Thoth and this has been the chief reason for translating *thn* as 'Sacred Ibis'. Prior to these texts *thn* occurs only once in this context, though the word is attested a number of times in the Pyramid Texts. The name has been compared...
with thn 'pierce, break through', perhaps referring to the bird's feeding habits (cf. qmt above).²⁸⁷

Hb (Coptic ḫḥw²⁸⁸) does not appear before the New Kingdom, though certain references (for example, in the Instructions of Amenemope²⁸⁹ and in the medical texts)²⁹⁰ may indicate its existence at an earlier date. It appears most frequently in association with the god Thoth,²⁹¹ who could take the form either of an ibis²⁹² or of a baboon (see Ch.10: Monkeys) and also occurs in lists of animals associated with deities.²⁹³ References to a man's fingers²⁹⁴ or actions²⁹⁵ being like those of an ibis doubtless refer to the wisdom of Thoth. The name may be derived from a root ḫḥ 'to step' and refer to the Sacred Ibis' stately gait.²⁹⁶

Representations of Thoth as an Ibis leave no doubt that ḫḥ designates the Sacred Ibis. It may be that thn also designated this bird,²⁹⁷ with ḫḥ taking precedence after the Old Kingdom and surviving into Coptic.

Only two species of crane²⁹⁸ are found in Egypt today, the Common Crane, Grus grus (L), and the Demoiselle Crane, Anthropoides virgo (L).²⁹⁹ Both may be distinguished among the birds depicted in ancient tombs as food offerings, the first from its red crown³⁰⁰ and the latter from its white head tufts.³⁰¹ They bear the names ḫḏt (Wb V, 516, 9-13: Art Kranich)³⁰² and ḫdC (Wb I, 407, 14: der graue Kranich) respectively.³⁰³

Two other species of crane, the Wattled Crane, Bugeranus carunculatus Gmelin, and the Sudan Crowned Crane, Balearica pavonina L, are found in East Africa; neither is found north of 20°N ³⁰⁴ and neither can be identified from Egyptian reliefs and paintings.³⁰⁵ Nevertheless, two further designations were applied to cranes in ancient Egypt: ḫw (Wb I, 170, 3: Art Kranich)³⁰⁶ and ḫt (Wb V, 149, 8: Art Reiher).³⁰⁷ Owing to the existence of one example where ḫw (written ḫhw) immediately follows ḫḏt Montet³⁰⁸ believed ḫw to be 'qu'une épithète qui qualifie une variété de l'espèce ḫḏt. Entre les oiseaux qui portent ces deux noms il n'y a d'autre différence que la couleur'. In the tomb of Ptahshepses at Abūṣīr the ḫḏt has blue legs and plumage with red feet, while the ḫḏt ḫhw has pale blue plumage and dark blue feet.³¹⁰
The colouring of cranes was mentioned by Junker\textsuperscript{311} when discussing examples from the Mastaba of Iy. He dismissed the presence of red colour on the feathering of the d\textsuperscript{ät} and w\textsubscript{دغ} as an error on the part of the painter: 'Wir hätten also unter d\textsuperscript{ät} nicht nur den schwarzen, sondern auch den roten Kranich zu verstehen' (though what he means by 'black' & 'red' cranes is unclear) - 'das will freilich nicht zu den feinen Unterscheidungen passen, die der Ägypter bei den Tierarten macht.' On these points note the brownish/reddish feathers which do appear on the back of the common crane;\textsuperscript{312} these colours were presumably transferred in error onto the demoiselle crane depicted in this mastaba. The colour differences noted by Montet seem insignificant; red feet are not, in any case, present on any species of crane. Junker\textsuperscript{313} suggested for j\textsubscript{ح} in this instance 'vielleicht die Bezeichnung des Männchens'.

With no further information available it is difficult to see how to translate w\textsubscript{ذ} and g\textsubscript{ذ}; though they are obviously different from the w\textsubscript{دغ} their similarity in form to the d\textsuperscript{ät} (and dissimilarity to other East African cranes) would tend to lead to the conclusion that these terms too applied to what modern zoologists see as a single species, Grus grus.\textsuperscript{314} The names applied by the ancient Egyptians to cranes thus provide valuable evidence for 'overdifferentiation' in their classification of animal species (see also Ch. 18: Fish).\textsuperscript{315}

The only one of the terms for cranes to survive the Old Kingdom was d\textsuperscript{ät}, which continued to be common in offering lists and elsewhere,\textsuperscript{316} for example, in ritual\textsuperscript{317} and as a good omen in a dream.\textsuperscript{318} This crane was also associated with the soul of the deceased on his ascent to heaven.\textsuperscript{319} By the Coptic period a separate term for crane had been lost; instead חרת and ס pomys, from Egyptian d\textsubscript{ört} 'flamingo', were used to denote this bird.\textsuperscript{320}

Two water-birds were adopted as hieroglyphs, the בק\textsubscript{321} (Wb I, 410, 10: der Vogel, den die Hieroglyphe darstellt) and the d\textsubscript{ünk}\textsubscript{322} (Wb V, 487, 9: der Flamingo, den das Schriftzeichen darstellt). The d\textsubscript{ünk} is easily identified as the (Greater) Flamingo, Phoenicopterus ruber L,\textsuperscript{323} still found in Egypt today,\textsuperscript{324} from detailed examples of the hieroglyph\textsuperscript{325} and from the name itself meaning 'red' (Wb V, 488, 1 - 490, 13: rot, rot sein).\textsuperscript{326} As a bird name d\textsubscript{ünk} is attested in a list of words,\textsuperscript{327} in the Book of the Dead\textsuperscript{328} and in the Coffin Texts\textsuperscript{329} where it varies with the otherwise unknown term, יבדר, var. יבדד (not in Wb).\textsuperscript{330} ב, on the other hand, does not occur used as a bird name,
though it undoubtedly did originally designate the bird represented by the hieroglyph. It was identified by Keimer as the Saddle-billed Stork, Ephippiorhynchus senegalensis (Shaw), sometimes known as the Jabiru (Stork), though 'jabiru' should properly be applied only to the South American stork Jabiru mycteria. The Saddle-billed Stork does not occur in Egypt today, but is found in the Sudan and in all but the most southerly parts of sub-Saharan Africa. Early hieroglyphs represent the position of this bird's wattle accurately, though by the New Kingdom this has migrated to the base of the neck. The colouring of later hieroglyphs is, however, reasonably accurate. Comparison with Coptic אֶלַי, 'night raven', 'screech owl', led to a delay in the correct identification of the bird is also preserved with a different meaning in Coptic, as אֶלַי 'crane'.

A number of other water-birds appear in named representations, for example:

\[
\begin{align*}
\text{Cnhbt} & \quad (\text{Wb I}, 193, 1: \text{Name eines Vogels}), \\
\text{hnt} & \quad (\text{Wb I}, 464, 4: \text{Name eines Vogels}) \\
\text{mrwryt} & \quad (\text{Wb II}, 109,10: \text{ein Vogel}), \\
\text{hnt} & \quad (\text{Wb III}, 104,2-3: \text{der Pelikan}) \\
& \quad - \text{compare perhaps hnt} (\text{Wb III}, 104, 1: \text{ein Vogel}) \\
\text{hrt} & \quad \text{var. \ hnt} (\text{not in Wb}), \\
\text{hnt} & \quad (\text{Wb III}, 396, 7: \text{als Name eines Vogels}), \\
\text{srh} & \quad (\text{Wb IV}, 220, 19: \text{Name eines Vogels}) \\
& \quad - \text{compare sht} (\text{Wb IV}, 209, 8: \text{Art Vogel}) \\
& \quad \text{and, similarly, the bird name in the phrase dw-sheh, which appears from the length of its bill in the hieroglyph, to be another species} \\
\text{sdh} & \quad (\text{Wb IV}, 394, 5: \text{als Name eines Vogels}) \\
& \quad - \text{compare sht} (\text{Wb IV}, 345, 1: \text{Name eines Vogels}) \\
\text{krt} & \quad (\text{not in Wb}), \\
\text{tnh} & \quad (\text{Wb V}, 313, 7: \text{ein Vogel}), \\
\text{tfnyt}, \text{which glosses another bird-name sht} & \quad (\text{Wb IV}, 118, 9: \text{Art Vogel}), \\
\text{dvyt} & \quad (\text{Wb V}, 499, 5-6: \text{als Name eines kleinen Vogels} \ (\text{ob: \ der Regenpfeifer?)}) \\
& \quad \text{var. \ dvyt} (\text{Wb V}, 478, 4), \\
\text{dme} & \quad (\text{Wb V}, 574, 13: \text{Art Vogel}).
\end{align*}
\]

Of these hnt 'Pelican' is the most common, being attested a number of times in mythological contexts, as well as in the medical texts. The mrwryt, identified from the Beni Hasan depictions as a Black Stork (Ciconia nigra L), may also appear in a mythological text.
as the *mrwy* whose wings are attached to the prow of a boat \(359\) (see also *Wf*, Ch.17, which may be a similar bird).

The *nhbt* and *dmw* are identifiable from the representations as the Pied Kingfisher\(^{360}\) and Avocet\(^{361}\) respectively. The *hry* may be a type of plover\(^{362}\) and the *shh* a gallinule.\(^{363}\) The *mrwy* evidently named the Spur Winged Plover\(^{364}\) and *dmw* the Little Ringed Plover,\(^{365}\) while *d[r]gyt* appears to have denoted the Painted Snipe.\(^{366}\) The other birds are as yet unidentifiable.
Houlihan and Goodman recorded 47 species of birds of prey from present day Egypt,¹ and a few of these can be recognised from ancient Egyptian records.

Five birds of prey appear as hieroglyphs: ³ (Sign List G1, cf G2-3), ² m (Sign List G17, cf G18-20), ¼ nrt (Sign List G14, cf G15-16), ½ ² t³w (Sign List G4) and ¾ Hr (Sign-list G5 cf G6-G13). These have been identified as the Egyptian Vulture, Neophron percnopterus (L);² The Barn Owl, Tyto alba (Scopoli) (among others);³ the Griffon Vulture Gyps fulvus (Hablizl),⁴ the Long-legged Buzzard Buteo rufinus (Cretschmar),⁵ and the Peregrine Falcon, Falco perearinus Tunstall,⁶ respectively.

Both ³ (Wb I, 1, 1: der weißköpfige Geier) and ¼ nrt (Kb II, 277, 1-3: der Geier) appear in the texts as the names of birds,⁸ but whether ² m was also the name of the owl(s) depicted is a matter of some debate.⁹ There is no evidence to suggest whether or not ½ t³w was the name of the buzzard of the sign, though ³ and ² m were undoubtedly onomatopoeic names¹⁰ and the same may be true of ½ t³w. ¾ Hr was not the name of the 'Horus' falcon; numerous references indicate that the bird in question was named bik.¹¹

Of these words only nrt is very common. The term is found several times in the medical texts.¹² Their bones and feathers are mentioned elsewhere¹³ and the deceased could fly to heaven in their form.¹⁴ Vulture heads on a collar¹⁵ and vulture figures as amulets were also named nrt;¹⁶ a 'vulture of gold' also appears in this context.¹⁷ This bird was closely associated with the goddesses Mut and Nekhet¹⁸ and possibly also Re.¹⁹

After the Middle Kingdom writings with final (apparently feminine) ² t become less common; ² t is replaced by ½ t³w. (In some of the latter cases the word may be confused with masculine n³w, 'ostrich'.²⁰) This form recalls Coptic writings,²¹ which may be either masculine or feminine. Westendorf concluded of the Coptic: 'Das weibliche Wort bezeichnet also den Geier beiderlei Geschlechts. Dazu erinnert Sethe daran, daß nach ägyptischen Glauben (Horapollo I, 11) nur weibliche Geier existieren'.²² On this idea Keimer also commented: 'Presumably to be connected with this idea [that vultures are all feminine] are the facts that from primitive times the vulture ³ A was conceived to be
the animal of Nhbt of El-Käb, the patron goddess of Upper Egypt, and furthermore that the same vulture hieroglyph was used to determine the word for 'mother' (mwt) and the name of the great Mother-goddess (Mwt) of Thebes, the consort of Amun'.

The only named birds of prey depicted in a naturalistic setting are the blk (Wb I, 444,13-445, 8: der Falke) and the tnhr (Wb V, 384,12: Art Falke). They are both shown nesting (the nest of a blk is also mentioned elsewhere). Tnhr occurs only in one other text, the tale of the Eloquent Peasant, so an identification of the species is difficult. Edel presumed it was one of four species of falcon now breeding in Egypt. The Eloquent Peasant text notes that the tnhr preyed on other birds; this would allow it to be identified as a Lanner or a Sooty Falcon.

As has been mentioned the blk is the bird associated with Horus, and designates the Peregrine Falcon. This falcon feeds chiefly on smaller birds, a characteristic mentioned a number of times at Medinet Habu, where the king (or his horse) among his enemies is compared with a peregrine among the šfn (Wb IV, 445,3: Art kleiner Vögel; Wb IV, 460,3: Art kleiner Vögel) or hpt (Wb III, 258,1: Art kleiner Vögel; Wb III, 259). Many other metaphorical expressions describe the king as a blk, divine blk or blk of gold. Various deities also appear with these appellations. In addition Hathor was described as a blk.33

In the underworld the deceased could assume the form of a blk in order to travel heavenwards or go about during the day. blk and amm (the bird associated with Amun) appear together in this and similar contexts. blk also appears in the Coffin Texts in descriptions of a fishing net, and is associated with the shoulders (mnwy) in a medical text. The blk had a place in ritual and magic, and falcon-shaped amulets, like collars in the form of falcons, were designated blk.

In a number of texts blk appears in parallel with gmhsw (Wb V, 172,1-6: Art Vogel (Raubvogel)). The vast majority of references to gmhsw are from Ptolemaic texts and Junker believed gmhsw at this date to be the name given to sacred falcons or cult images of the god Horus. In earlier texts the gmhsw is associated with Sokar. The 'falcon (gmhsw) who sees the rudder' in the Cairo Calendar may be compared with the 'gmhsw upon the evening bark' of Theban Tomb describing Ptah-Sokar-Osiris (cf Sign List G10 'falcon on a special sacred bark' as determinative of the name of Sokar). Gmhsw also appears on an.
ostracon preserving part of a sun hymn. 47

In two of the texts in which blk and gmhw occur together _DIRS (Wb IV, 514, 1-4: ein Raubvogel: Falke) also appears. 48 This term is elsewhere applied to Horus, 49 and to a falcon-shaped amulet. 50 Like gmhw it is more common in Ptolemaic texts. 51 Its usual determinative was described by Gardiner as an 'archaic image of a falcon'. 52 One of the texts containing these three words gives different determinatives for each; though each describes the sun-god the juxtaposition of the words seems to indicate a clear distinction between them.

It is evident that by Ptolemaic times gmhw was synonymous with blk, 53 and both gmhw and _DIRS at that date were applied to Horus in the same way as blk. Altenmüller 54 suggested that the different terms corresponded to different depictions of falcon deities: 'Als heiliges Tier...: seit der Frzt in unterschiedlicher Haltung dargestellt, als aufgerichteter F(alke) (blk), als lauernder F. (_DIRS) oder als mummifizierter F. (ihn, Achom), seit MR auch mit ausgebreiteten Flügeln (Dunanui)'. Nevertheless, blk may also show a 'cowering falcon' determinative, 55 so the distinction may be more complex than Altenmüller allowed.

Like Horus and Mut, Isis and Nephthys also took the form of birds of prey. In their functions as mourners at the bier of the deceased (as Osiris) 56 these birds are both depicted and named. When depicted the birds are drawn alike; 57 in the texts, however, although both may be described as drt 58 (Wb V, 596, 2-8: ein Raubvogel: der Falke, die Weihe oä), especially as drt wrt and drt ndst, 59 Isis' bird may be designated -Disposition (Wb III, 7, 8: ein Vogel). 60 Houlihan, from various representations of Isis as a bird, identified two species, both the Black Kite, Milvus migrans (Boddaert), and the Kestrel, Falco tinnunculus L or Lesser Kestrel, F. naumannii Fleischer. Neither of these identifications is entirely satisfactory. 61

Disposition also appears as the name of a bird in a relief at Abušir, in the sun-temple of Niuserra: 62 The bird depicted here has a long bill, as it does in another relief from the Unas causeway, 63 and forked tail, and was identified by Edel as a tern 64 ('Seeschwalbe'). Disposition also occurs on a Middle Kingdom sarcophagus between three dressed ducks and a pintail, though it is probably not a bird name here, but a writing of _Disposition 'food' (Wb III, 12, 22: Speisen oä). 65 Similar forms hav and hav (Wb III, 16, 2: Bez. der Raubvögel) are also attested; in the former case 66
Isis is referred to, in the latter the conquering pharaoh is likened to h3vw among a multitude of birds. The determinatives in the latter text are unusual - both h3vw and s2pc 'bird' have the I as determining sign. This sign is also found as a determinative of drt, and Isis and Nephthys depicted as birds of prey sometimes appear very like the 3-hieroglyph in shape. H3vw also has a knife (Sign List T30) as determinative, which would seem appropriate for a bird of prey. Hay is attested in addition in the Coffin Texts, and is apparently to be distinguished from another bird name h3w. Hst is also attested here, and a form hayt, recorded among the names of various edible birds, appears in a New Kingdom document. (See also Ch. 15: Waterbirds for these words).

The drt appears to have been regarded as a vicious scavenging bird, eating carrion as well as mice, though it could be 'mastered', like the bik. This Keimer took to be a reference - the only one in Egyptian texts - to falconry. The drt is twice referred to as being 'in the sky' - this seems to have been its typical habitat (as the desert was for jackals); the bird's flight heavenwards is alluded to in the Pyramid Texts. It appears in parallel with other types of bird, among them the bik and amn. A writing dri also occurs in love-songs, and in the medical texts the bird appears in the rôle of a scapegoat.

A form drty (Wb V, 597, 5-12: Art Falke; Wb V, 597, 13-14: das Falkenwelbchen) is also occasionally found, though it is applied to Horus, to the pharaoh or to a Nile god. These texts are late in date; like gmhsw and ãnhby, drty seems to have been synonymous with bik.

Drw (Wb V, 601: Vogel, Raubvogel, cf Wb V, 596, 1: Art Vogel in einem Vergleich) in the phrase drw n ãl from the Book of the Dead should perhaps also be included here, though this is not otherwise attested as a writing of drt. (Compare however the Coptic form Tpe).

It can be seen from the above texts that the drt (var. drw, dri) was noted for its wailing cry, its scavenging, eating mice and frequenting watery habitats. It could, perhaps, be trained. In all these characteristics it resembles the Black Kite (Milvus migrans). Hst (var. hay, h3yw) also clearly denotes a bird of prey. It may be distinct from the hat as depicted at Abu Sir and the Unas causeway though this bird's forked tail and fish-eating habits are also found in the Black Kite. As noted above it is difficult to identify the birds.
of Isis and Nephthys from representations in tombs and on papyri but, when depicted, the birds are always of the same species. From this and the texts it may be deduced that both ḫˁt and ḫt applied to the Black Kite; ḫt may have been a descriptive name, 'screecher', also appropriate to other species (such as a tern).

The ḫy-bird (Wb I, 224, 11: Name eines Vogels) appears in one text as an insect-eating bird. In another, Isis speaks of herself as both an ḫy and a ḫt. The ḫy and the bḥk appear together in a medical text, and ḫht (again like bḥk) is used of the king. These attestations indicate that ḫy was a similar species. That it is described as 'striking' suggests that it was a bird of prey. It is also mentioned in connection with watery places and as being restless. A keeper (ḥḥw) of ḫy (written ḫḥw) is also known.

In another text the term appears to have a more general meaning, seeming to designate 'birds' as a class. Sauneron compared the term with ḫḥl 'voler'; another word with a similar etymology and a broad meaning is pḥw (see Ch.1: Classification). Both the specific and the general meanings of ḫy are found in New Kingdom texts; the presence of ḫy in the medical texts apparently denoting a species might indicate that this was the older use.

Other terms which have been translated with the names of birds of prey are ḫs (not in Wb) and ḫtḥt (Wb V, 618,8 : Geier). Both may be vultures, though in one case ḫs has a determinative unlike a vulture. Also possible as the name of a bird of prey is bḥḥ (not in Wb); this bird, like bḥk and ḫt-ḥrw, appears on the prow of a boat.

No term is preserved which may be translated 'eagle' though it has been asserted that Coptic used the ancient term ḫhm, (Wb I, 225, 15-226, 5: Götterbild... der Falke) to designate this bird. The expression 'feather of an ḫhm' indicates that it was a living species. According to Ember, the word may be descended from a Semitic root.
Chapter 17: Miscellaneous Birds

As has already been mentioned in Ch. 15, mnwt (Wb II, 72; Wb II, 79, 3-4: die Taube) is very frequently attested in offering scenes and lists from tombs and temples, appearing most often in a group of five birds with two geese (ř, trd) and two ducks (st, s). From named representations of the bird mnwt it may be identified as the Turtle Dove, Streptopelia turtur (L). Although mnwt is the most common writing of the name of the bird, mnt and mnw are also attested. Mnwt (once as mnt) also occurs many times in longer lists of birds destined as offerings.

Similar lists are known which separate ducks and geese (summarized as (3dpw)mnw: 'water-birds') from other birds; here the writings mnt, mnt and mnw are attested. Mnyt (Wb II, 77) also appears in another list of offerings. The form mnw is recorded separately by Wb (II, 79, 5: Art Vogel) among a list of goods transported by the 'Eloquent Peasant'. Mn It is recorded by Spiegelberg in a list of birds on an ostracon from the Ramesseum; Gardiner supposed mnt and mnvt to be either variants of mnwt or writings of a separate term altogether. The latter appears to be disproved by the examples noted above.

In P. Ebers the writings mnt and mnvt once occur in the same prescription (note that mnt was corrected from mnyt). This is the only occurrence of mnvt in the medical texts though mnt is attested several times; mnwt is not attested in these texts. Wb. Drag translated the terms 'die Taube' (mnyt) and 'die Schwalbe' (mnt) respectively.

Mnt with swallow determinative (Wb II, 68, 2-4: die Schwalbe) is frequently attested in mythological contexts. It was associated with Re (Greco-Roman sources rather indicate a connection between Isis and the swallow), it appeared in the underworld texts and was one of the birds into which the soul of the deceased might change in order to travel heavenwards. It occurs in a love song as the herald of the dawn. Swallows were revered at Deir el-Medina and mummified examples have been found near Thebes. Mnt is also attested as a toponym and as a personal name. Another writing of the word can be found above a representation of two swallows in the papyrus of Panebenkemetnakht where stands the word mnt.
It is abundantly clear from the above that there was considerable similarity between the various forms of mnwt and mnt. Hnw_ and Mn-wt, as is indicated by their presence in lists of food offerings, almost exclusively designate a dove. But mnt and mnlt, on the other hand, may be used to designate either the swallow or the dove, and there seems little point in postulating, as Gardiner did, the existence of a third bird designated mnlt. The mnvt of P. Ebers causes a problem in that the word with which it appears, mnt, can apply to either the dove or the swallow. Since mnvt is attested elsewhere with the meaning 'dove' it may be best to understand mnvt 'dove' and mnt 'swallow' in the Ebers text, as suggested by Wh. Prog., though the reverse cannot be altogether ruled out. This evidence well illustrates the dangers of translating mnt and mnlt out of context.

Mnt 'swallow' survived into Coptic (as SHHNH); mnwt 'pigeon' did not. Instead GroomT was used, derived from earlier gr-n-p't (see below).

Various other words have been considered to designate pigeons/doves and swallows: bdw (Wb I, 488, 15: Art kleiner Vogel); c+b var. cb (not in Wb, but cf cbw, Wb I, 175, 1: Name eines Vogels?), and, perhaps, cby(t), not in Wb); nsmty (not in Wb); èm (not in Wb); hsf (not in Wb); gdw (not in Wb); smt (not in Wb); sm (not in Wb); sf (not in Wb); s+bw (not in Wb); gdw (Wb IV, 228, 7: Art Vogel. Ob richtig?); gr-(m)-pt (Wb V, 181, 2: die Taube; Wb V, 181); s+ (Wb IV, 280, 14: Name eines Vogels); f+s (Wb I, 229, 11: Art Vogel: ob Taube?); wr (Wb I, 326, 11: die Schwalbe) and f+nt (not in Wb).

Bdw was translated 'Taube' by Edel, who rejected other identifications of this bird as a sandgrouse as he believed the bdw to be a migratory bird (sandgrouses are migrants however). Edel also believed cb to be a dove, possibly a subspecies of G. turtur, and this would accord also with pictures of the cb. A peasant's voice is compared to that of the cb since few birds are voiceless it is difficult to identify the bird from this text alone, and to confirm or deny whether it was merely a variant of cb or c+h. The word has been translated 'crow' or 'raven' though the repetitive tones of the pigeon or dove would suit the context equally well; in other texts the human voice is compared with the drw (kite?), smm (Nile goose) and bwn (heron). Another bird name which may be related to a verb concerning the human voice is ñ (cf Wb IV, 281, 1: umstimmen; IV, 281, 2-3: flehen...), identified by Davies from the representation at Beni Hasan as 'Pigeon(?)."
Šemty was the name given to another of the birds depicted at Abûsîr which Edel identified as pigeons. He translated the name literally as 'die Malachitfarbene', comparing Šemt (Wb IV, 539, 1-3: Ein Mineral), and understanding this as a reference to some species' neck of glossy metallic green. He took as a designation for the Rock Dove, and ḫaf for the Laughing Dove; he accepted the possibility that the terms Šem and ḫaf might not be bird names but part of a phrase labelling the scenes, though, from the placement of the signs, this does not seem inevitable.

Sābw named a bird depicted at Beni ハウスan, identified by Houlihan and Goodman as a Masked Shrike. The name is appropriate to this bird; the term sāb is applied to black and white cattle (see Ch.4: Cattle) and the Masked Shrike is a black and white bird with rufous flanks. (If this identification is correct the approximate size (c.6") of the īrt, ḥīw and sīnībw in the same scene can be established.) The sābw also appears at Abûsîr where it was identified by Edel and Keimer as a type of pigeon; the Beni ハウスan example indicates that this is probably wrong, though a rather pigeon-like bird being carried by a boy is labelled nfr sāb in the tomb of Mereruka.

The name gr-m-pt was translated 'dove' by comparison with Coptic Gpoompe, 'dove'. (Compare here the form ayr (Wb V, 181, 1: Vögel; Geflügel). This bird is not depicted but is mentioned a number of times in lists of food offerings, often close by the mnwt. This would certainly indicate a bird of similar size or type. Another bird from the offering lists, often appearing in parallel with the ht- or geese is the Cs3 (a variant ġt may also belong here). In other lists it is separated from such 'waterbirds' and follows mnwt or gr-pt. The word occurs with several variant writings, some showing a bird determinative, others showing a bird hieroglyph preceding, or both preceding and following, Cs3. This has led to the readings st-Cs3 (this is explicitly written in one case) or s'(Cs3 (Wb IV, 55, 20: Art Geflügel) (which appears written out in a Ptolemaic text), but also ġt and Cs3 'ordinary birds', which has sometimes been separated from the bird-name Cs3. It is generally the Cs3+bird determinative which occurs with the ht- and ġt and this is perhaps, therefore, to be understood as a type of waterbird, a goose or duck. Writings of Cs3 with the bird sign preceding should then be read s(t)Cs3 and considered to be a similar type of bird to the mnwt and gr-pt.
Wr as the name of a swallow was deduced from the Pyramid and Coffin Texts and the Book of the Dead, though in later times it appears exclusively as a phonogram, while mnt is used to designate the species. Cnt is attested in a passage recounting a ritual involving various birds. The word has been compared with one of the bird names at Beni Hasan (usually read ārt), applied to bird identified as a type of swallow, despite the fact that the bird so named does not have a swallow's forked tail. The toponym Cnt from the Coffin Texts has been read as a variant writing of mnt, though the ritual text would seem to confirm Cnt as a separate word. Note that Cnt is also attested in an unfortunately garbled list of offerings from Luxor; from its position in the list it is likely that a much larger bird than the swallow is intended and, therefore, that this identification should be abandoned.

A number of bird-names may be inferred from the phonetic use of signs with the forms of birds. Examples of these are w (Wb I, 243: der junge Vogel, den die H[ieroglyphe] darstellt (ob Wachtel)); wr (see above); nh (not in Wb); rhyt (Wb II, 447, 8: Name des Vogels mit dem das folg. Wort [=rhyt Untertanen, Volk] geschrieben wird), cf rht, perhaps not the same word; and db (not in Wb). Other signs belonging to this group, m and ēk, are discussed in other chapters.

The nh is attested as a bird name, though only infrequently, and has been identified as the Sennar guinea-fowl, Numida meleagris (L). The rhyt-bird appears from detailed hieroglyphs to be a lapwing, Vanellus vanellus (L), and the db a hoopoe, Upupa epops. (Hoopoe has also been given as a translation of the bird name kk, (Wb V, 71, 11: Name eines Vogels der als langlebig gilt. Ob 'Kuckuck?') attested in the Ramesseum Onomasticon and at Thebes.

The niw (Wb II, 202, 8-11: der Strauß) is readily identifiable from its determinative (Sign List G34), as the ostrich (Struthio camelus L). Recent records of ostriches in Egypt suggest that the bird may have existed unobserved there since antiquity (it is sometimes stated that the bird died out in Egypt in the 19th century) or that it may have re-colonized the country by advancing north from the Sudan. Although the ancient Egyptians pictured and mentioned ostriches as imports from the south, east and west, hunting scenes indicate that a considerable number existed wild in Egypt. Their eggs and feathers were also imported; these, together with other parts of the bird, are mentioned in the medical texts and elsewhere. To dream of an ostrich was a bad omen.
A New Kingdom text records the n.mc 'dancing in the valleys' at sunset, a scene depicted at Medinet Habu and at Amarna, where ostriches and other animals are shown running beneath the sun's rays. This 'dancing' by ostriches has been noted by various zoologists.

The term may be the ancestor of Berber a.nnili90 it did not survive into demotic or Coptic.

One of the birds from the Beni Hasan 'bird and bat' scene which also occurs on a number of Old Kingdom tomb reliefs is the g.nw (Wb V, 174, 2-4: Art Vogel), also read k.nw92 (Wb V, 69, 6: Wohl Name des Vogels, den die Hieroglyphe darstellt93). Wb considered the latter to be 'kleine, den Früchten schädliche Vögel wie Sperlinge'. The former has been identified by several authorities as the Golden Oriole, Oriolus oriolus (L), which still occurs in Egypt.95 Apart from its appearance as a label for the birds in tomb scenes the word g.nw also occurs in the medical texts.97 From the similar colouring of the g.nw and k.nw, and the fact that the sign with which k.nw is written (Sign List T19-20) may also be read g.n, the two designations should perhaps be read together as g.nw; there is, however, a demotic word k.nw,99 which would indicate that the earlier term should not be deleted altogether.

A bird discussed by Gaillard together with the oriole was that called s.w.rw (Wb III, 429,7: Name eines Vogels), attested both at Beni Hasan100 and at Abûșir.101 Gaillard identified it with reason as the Roller, Coracias garrulus L.102 Like the oriole this bird is found in modern Egypt, together with the species Coracias abyssinicus Hermann, the Abyssinian Roller.103

The p.kr (Wb I, 504, 14: Art Geflügel), nhnt (Wb II, 312, 7: ein Vogel, von sprichwörtlich weißer Farbe), s.nfrw (Wb IV, 163, 15: ein Vogel von schwarzer Farbe), skm (Wb IV, 318, 7: Art Geflügel) and t.t (Wb V, 413, 14-15: Sperling) have all been identified, though generally on somewhat uncertain grounds.

p.kr occurs in lists of birds destined as offerings and once, again with the names of other birds, in a mathematical problem. It also appears in a medical text, and a ritual text. Similar terms p.kr, which occurs in a letter to a man's dead mother, and p.t, in a text berating an idle pupil, have been compared with this word. Wreszinski suggested for this bird 'Wachtel' (quail), noting that the
translation was, however, 'nicht sicher', but deducing from the mathematical text mentioned above that it was a bird of a similar size to a dove (mnwt). Pfrrt was also translated 'la Caille' by Loret, comparing the term with the Coptic πψπς. Doubt was cast on this equation by Gardiner and Sethe, but it continues to be proposed in etymological dictionaries. The common quail, Coturnix coturnix (L), is still found in Egypt today; numerous agricultural scenes from the ancient tombs attest to their presence there at an early date.

Nhnt and snfrw both occur in the same text at Amarna: 'until the nhnt becomes black and until the snfrw becomes white'. Snfrw may also occur at Maidûm, and a term nhhnh occurs in a rather garbled list of bird names at Luxor. From the Amarna examples Davies believed the birds nhnt and snfrw to be the swan and crow respectively (as being typical white and black birds). The translation of nhnt as swan was questioned by v.d. Walle, following Störk's suggestion that dndn designated the swan, but, as has been seen above (Ch. 15: Waterbirds) the dndn is rather to be compared with the Old Kingdom goose name dnw, and a term for the swan to be sought elsewhere. The occurrence of nhhnh in an offering list would not preclude an identification of this bird as a swan since a swan is depicted in precisely this context in the tomb of Ptahhotep. No other term has been consistently accorded the translation 'crow' though demotic 3bk/ibk, Coptic dsw+x have been regarded as designating its close relative the raven. Both crows and ravens are found in Egypt today.

The skm appears only once, in a text concerning the upset of peaceful life at the water's edge. Görg compared it with Hebrew skwi, also a hapax, which he translated 'Hahn' (cock), with the comment: 'Die Bezeichnung könnte zwar asiatischen, aber wohl nichtsemitischen Ursprungs sein, zumal der Hahn Importtier aus dem indischen Raum zu sein scheint.'

The earliest known representation of a cock from ancient Egypt is to be found on an ostracon from Deir el-Medina; a Dynasty 18 text referring to birds (3pdw) which 'lay (ms) every day' may also describe this bird. From the time of the Persian occupation of Egypt gmt was used of domestic fowl - cf demotic kɔml and Coptic 6Δ1ΜΔ - though this word originally described the Glossy Ibis (see Ch. 15: Waterbirds). Between the first mention of these birds in the texts (as 'birds' only) and the transference of gmt, it is possible that a specific name was coined for them, and the loan of a foreign term (cf
The $tt$ is attested only a few times, one of these being as the name of a type of bread or loaf\textsuperscript{135} (for similar designations see $\lambda\nu$, $\kappa\theta$, $\lambda\upsilon\omega$, $\gamma\alpha\upsilon\upsilon\nu$ and $\varepsilon$ ). In the other texts it is recorded as doing damage to the crops,\textsuperscript{136} a characteristic of sparrows but also other birds.\textsuperscript{137} Wb translated 'Sperling' without comment; Černý\textsuperscript{138} also translated the Coptic $\xi\alpha\lambda\varsigma$, derived from $tt$, as 'sparrow' comparing $\chi\nu\gamma\chi\omega\gamma$ 'twitter'.\textsuperscript{139}

A considerable number of bird-names occur only once or so infrequently or in such contexts that they are impossible to identify. These are listed in alphabetical order below:\textsuperscript{140}

\begin{itemize}
  \item $\beta\beta\nu\nu$ (Wb I, 8, 6: Art Vogel), var. $\beta\beta\nu\nu$ (not in Wb)\textsuperscript{141} - note here also the fish-name $\beta\beta\nu\nu$, $\lambda\nu\upsilon\omega$ (not in Wb)\textsuperscript{142}
  \item $\lambda\beta\upsilon\tau$ (not in Wb), which appears in a ritual text\textsuperscript{143} and elsewhere,\textsuperscript{144}
  \item $\lambda\mu\tau\rho\varsigma(?)$ (Wb I, 88, 17: Name eines Vogels), possibly to be read $\lambda\mu\tau\rho\sigma$,\textsuperscript{145}
  \item $\lambda\nu\beta$ (not in Wb), from a text recording rituals involving birds,\textsuperscript{146}
  \item $\lambda\upsilon\omega$ (Wb I, 152, 3: Art Vogel), from the medical texts,\textsuperscript{147}
  \item $\lambda\upsilon\varsigma$ var. $\lambda\upsilon\omega\varsigma$, (not in Wb) from the Coffin Texts,\textsuperscript{148}
  \item $\chi\nu\nu\beta\omega$ (Wb I, 192, 14: Name eines kleinen weißen Vogels), depicted at Beni Hasan\textsuperscript{149} but still unidentified,
  \item $\chi\nu(?)$ (Wb I, 225, 13: Name eines Vogels)\textsuperscript{150}
  \item $\chi\nu\omega$ (not in Wb),\textsuperscript{151} possibly to be taken as a variant of $\chi\nu$ (see Ch.16: Birds of Prey),
  \item $\nu\delta\nu\delta$ (Wb I, 270, 3: ein Vogel), in parallel with $\beta\kappa\kappa$ but, from the determinative, apparently not a bird of prey itself,\textsuperscript{152}
  \item $\nu\delta\kappa$ (Wb I, 409, 8: Name eines Vogels)\textsuperscript{153}
\end{itemize}
bhw.t (not in Wb), a bird associated with the gods and showing a 'hawk-on-perch' determinative, 154

pr (Wb I, 531, 8: ein Vogel), possibly a bee-eater, 155

māṣ (Wb II, 156, 17: ein Vogel), in a medical text, 156

sēwt (not in Wb), translated 'danger-bird(?)' by Faulkner; it appears together with the crane (dīt), 157

ṣrōp (not in Wb), from an offering list, 158

ḥywt, in the title ḫm-m r ḥywt (Wb IV, 236, 11), to be compared with sēt (Wb IV, 262, 3 - 263, 2: Vögel mit dem Netz fangen) and sēty (Wb IV, 263, 3-4: der Vogelsteller) hence, presumably, meaning merely 'trapped birds', 159

kid (not in Wb), in parallel with an ibis (hb), 160

khōk (not in Wb, but cf gḥqj etc. below), 161

kākr (not in Wb) - as it appears with gṛ-pṭ it may be a similar (possibly a larger) bird, 162

knmt (Wb V, 132, 7: ein böser Vogel), possibly a seagull - compare here the animal name knmt, 163

gḥqjw (Wb V, 155, 1: Art Vogel), var. (?) gḥqj (Wb V, 165, 2: ein dem Toten feindlicher Vogel), translated 'vulture' by Faulkner, although this does not suit the determinatives, and 'raven' by Ebbell, though without comment, 164

ddwn (Wb V, 502, 6: ein Vogel?), from the Pyramid Texts, 165

dwēt (Wb V, 551, 8: Art Vogel oū), from the Coffin Texts. 166

Female birds, where specifically mentioned, were called hmt (female), 167 usually in conjunction with the name of the male. St 'pintail' and smnt '(female) Nile Goose' (see Ch.15: Waterbirds) are exceptions.
Two words for 'fledgling' were recorded by \( \text{Wb} \). Of these \( \text{tj} \) (\( \text{Wb} \ V, 338, 14: \text{junger Vogel} \ldots \)) is the more common\(^{168} \) and could be applied to the young of other animals\(^{169} \). The hieroglyph \( \text{tj} \) was represented by a young bird (\textit{Sign List} G47) depictions of which in naturalistic settings were studied by Davies;\(^{170} \) she, like Gardiner, believed the \( \text{tj} \) to show a duckling.

The second term, \( \text{sms}^{171} \) (\( \text{Wb} \ IV, 142, 7: \text{die junge Brut des Geflügels} \)), is obviously connected with \( \text{ms} \) 'give birth' or (in the case of birds) 'lay'. \( \text{msw} \) also appears to be attested as a term for chicks in the phrase \( \text{msw} \ 1rw-\text{pt}^{172} \) (For \( \text{msw} \) and the similar term \( \text{msyt} \) applied to other animals see especially Ch.4: Cattle and Ch.8: Horse and Donkey).

\( \text{msf} \), unknown to \( \text{Wb} \), but attested on an ostracon,\(^{173} \) was compared by \( \text{Černý} \) to Coptic \( \text{qyAy}^{174} \) he translated the term: 'young bird (which can neither walk nor fly), fledgling'.
PART 3: OTHER ANIMALS
To the ancient Egyptians fish were inextricably connected with the Nile. Whenever the river was depicted fish were shown within it and one text states that fish lived on its water. It is only in two sources from the New Kingdom that fish from other regions are recognised; the 'Punt reliefs' from the temple of Hatshepsut at Deir el-Bahri show fish of the East African and Indian coasts and a New Kingdom text lists the names of sea fish.3

'Fishing and fowling' scenes of all dates illustrate the importance of fish as a source of food.4 This is also shown by the fact that the majority of recorded fish names are attested on ostraca noting the payment of fish, among other foodstuffs, to the workers of Deir el-Medina.

The place of fish in mythology was limited.5 Certain species enjoyed cult worship and were mummified.6 Two species were depicted in the heavenly Nile guiding the solar bark in its hazardous journeys across the sky (the int and the abdw). Two (the int and the h3) were of particular significance in the fishing and fowling scenes already mentioned, being guarantors of rebirth after death. One species (lknw) was especially associated with the fish deity of Mendes, Ḥat-mehit.

Gamer-Wallert's exhaustive treatise on fish in ancient Egypt included a lexicographical study of some 70 individual fish names and the discussion below will use this work as a starting point. Certain elements in the book are open to criticism, not least the wholesale adoption of Gaillard's list of species identified from ancient tomb reliefs without any attempt to update the zoological nomenclature. Nile species, which may well have been named by the Egyptians even if never depicted, are not considered.

Only a few of the fish names preserved from ancient Egypt are readily translatable, though even in these cases it is usually not possible to identify down to the species level. These include the Nile Perch, Lates niloticus (L) (ḫ3 - Wb I, 217, 4-5: der Nilbarsch);10 Clarias sp (nfr - Wb II, 209, 1-6: Art Fisch; der Wels);11 Synodontis sp (wfr - Wb I, 350, 12-14: Art Fisch)12 var. ħwr13; and Tetraodon lineatus (L) (ḏpt - Wb IV, 435, 9: der Igelfisch).14 The names of these fish are attested in lists of fish names and in the medical texts and occasionally elsewhere. The Grey Mullet has been recorded as the...
determinative of three words - ḫb, ẖkmt var. ḫmkt, ḫlkt, and ḫ as well as being used as a phonetic sign (ẖd). ḫd itself is attested as a fish name. Two other fish were common as phonetic symbols and can be identified from the hieroglyphs as members of the genus Sarotherodon or Tilapia and Mormyrus; these are the ẖnt (Wb I, 92, 12-15: Ein Nilfisch, 'bulti') and ḫt (Wb III, 539, 8: der Oxyrhynchusfisch) respectively.

Three further fish names were identified by Gamer-Wallert as designating members of the genus 'Tilapia' (Sarotherodon/Tilapia); these are the ḫd (Wb I, 399, 7-8: Art essbarer Fisch von roter Farbe), also written ḫd (Wb I, 268: Art Fische), the ḫr (Wb V, 492, 10-11 : Art Fische) and the ḫmsk (Wb I, 88, 10 : Art Süsswasserfisch).

Both ḫd and ḫr are mentioned together with another fish, ḫdw (Wb I, 8, 23: Art Fische) in place of its usual companion the ẖnt and it has been suggested from this that the three terms were synonymous. ḫd appears also in a hymn to Ramesses VI and in association with the baboon (ẖn). ḫt occurs in association with Horus.

A fish named ḫd nfr is depicted on an ostracon from Deir el-Medina; only the hind part remains, and shows a tail fin shaped like those of the Sarotherodon/Tilapia genera. It was this, together with the pattern on the tail, which prompted Gamer-Wallert to regard ḫd as synonymous with ẖnt. The ḫd is elsewhere described as being red, though its name suggests that it was green (ḏḏd). That a 'green' fish should be described as red would, according to Gamer-Wallert, suit the shimmering colours of Tilapia. Keimer also believed this to be the case, noting the variety of the colour of stones in which figures of Tilapia were made. However, both ẖnt and ḫd appear together in another text, which suggests that the words denoted separate species (or at least different types); this text is not commented upon by Gamer-Wallert. As the text lists fish as food it is clearly not the case that ḫd was an epithet describing the ẖnt, in the way that ḫt 'chatterer' describes the baboon ẖn. In any case an early text gives ḫd a different determinative from ẖnt. ḫmsk appears in parallel with ḫd and ẖnt and cannot, therefore, be entirely synonymous with these.

Despite being depicted mummified in the tomb of Khabekhnet (Theban Tomb No. 26) the ḫdw has resisted identification. It is partly obscured in the tomb scene by the figure of Anubis who is
attending to its mummification; only the tips of the dorsal and anal fins and its tail are visible. It is described in the accompanying text as the '3bdw of lapis lazuli'; elsewhere '3bdw of gold' is a more common appellation.

The original translation of 3bdw, from a comparison with Coptic έψυχ, Arabic at-tirsa, was 'turtle'. Many texts, however, mention the 3bdw, (alone or with the ūnt, dār or wād) as accompanying the bark of Ra, and representations of this scene show two types of fish guiding the boat. In scenes showing the deceased tomb owner spearing fish the ūnt-fish is accompanied by the Nile Perch, Lates niloticus, but the name of this fish is ḫ3, and it clearly differs from the 3bdw of Khabekhnet and the second fish of the solar bark drawings in having a rounded rather than a slightly indented tail.

The problem of the identification of 3bdw was addressed at some length by Gamer-Wallert who rejected various species as being different in some degree from that fish as depicted: Labeo niloticus, Barbus brynni, Schilbe mystus, Polypterus bichir (a suggestion of Ebers), Lates niloticus, Petrocephalus sp. (because of the characteristic lip of this fish), Mugil sp. (though this remains a possibility). This difficulty in identifying the 3bdw with any known species has led to the suggestion that the 3bdw was a purely mythical beast. It was closely associated with Ra and Amun (because of this it has been identified as an eel), Horus and other deities and is attested in magical texts. Nevertheless it also appears in a number of rational texts - on ostraca and on weights. A further text states that this fish should not be eaten on certain festival days, and it was used in medicine, as well as in magico-medical remedies. 3bdw, therefore, evidently denotes a real fish.

As mentioned above, the mullet has been named as the fish which determines the words bꜣ, ḫbd and ḫkmṯ and writes the phonetic group tf. Another fish, bry (W I, 465, 10: ein Nilfisch), has also been identified as the mullet, by comparing Coptic ṣwpe and Arabic būrī, 'mullet'. As one text records bry as a sea-fish this may be possible. (Likewise the New Kingdom term ṣmr (cf Arabic ẓal, Synodontis schall) was held to denote the fish originally called wꜣ).62

This profusion of terms apparently denoting the same fish has received considerable discussion. Edel presumed that, in the Old
Kingdom, लश was a generic term for mullet, with ब्ल, र्न्त and \( \text{ह्सक्म} \) denoting the three species \( \text{M. cephalus}, \text{M. capito} \) (now \( \text{Liza ramada} \)) and \( \text{M. auratus} \). In the Middle and New Kingdoms, he believed, लश was the only definite term for the genus \( \text{Mugil} \) (the terms र्न्त and \( \text{ह्सक्म} \) are attested only in the Old Kingdom), though he presumed that प्य्रव was a 'spezielle Bezeichnung' for a type of mullet. This opinion was also accepted by Gamer-Wallert. 64

In two New Kingdom Texts65 both प्य्रव and ब्ल appear together in addition to the लश and would, therefore, seem to denote different types of fish (cf \( \text{ल्हट, व्द} \) and \( \text{ह्सक्म} \) above). Whether they denoted different genera, species or sub-species is difficult to say. The deduction of the meaning of प्य्रव via Coptic and Arabic is by no means a certainty, and ब्ल written in an Old Kingdom relief showing a market scene may not refer to the fish (a mullet) being handled. It is not impossible that लश designated both the genus and the most abundant (typical) species as is the case in other languages. 66 If the three words did all refer to the same species this would constitute a rare case of 'overdifferentiation' in the ancient Egyptian zoological nomenclature, paralleled by the earlier example of लश, र्न्त and \( \text{ह्सक्म} \) and the names of cranes (see ध्सत, \( \text{स्व, व्द} \)). ('Overdifferentiation' is a phenomenon described by anthropologists from modern primitive languages in which animal categories are subdivided further than the species in Linnaean classification). 67 This practice was recognized by Keimer 68 in modern Arabic, in which he noted different words for fish which had spawned and those which had not, for larger and smaller fish and for males and females.

Without the aid of named drawings or textual references which do more than merely record names little can be done to identify the other fish which are mentioned in the ancient Egyptian texts; records of fish names on weights or ostraca show at least that the species mentioned were all edible:

\begin{align*}
\text{श्वन} & \text{ (Wb I, 8, 5: Art Fisch)69} \\
\text{ल्य} & \text{ (Wb I, 38, 8: Art Fisch)70} \\
\text{ल्हट} & \text{ (Wb I, 49, 18: Art Fisch)71} \\
\text{स्वत्व} & \text{ (Wb I, 172, 10: Art Fisch)72} \\
\text{च्या} \text{ var.} \text{ च्या, च्या (not in Wb)73} \\
\text{ब्लट (not in Wb)} & \text{74} \\
\text{ह्स्वट (not in Wb)75} \\
\text{ह्स्वन (Wb I, 484, 16: Art Fische (ob richtig?)))76} \\
\text{ब्सव (not in Wb)77}
\end{align*}
A number of fish names which have recently come to light should be added to Gamer-Wallert's work; most of them occur so seldom that they cannot be identified.

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'Itn is the most frequently attested and was associated with the deity of Mendes, Ḥat-mehit, 'Foremost of Fish'. The word was considered a miswriting of Int by Montet in a study of various texts of the Ptolemaic Period, though earlier attestations are provided by the Cairo Calendar and P. Sallier IV. The term also appears in a passage relating the evil deeds of Seth and is recorded in another text among the fish of the wadi-wr.

The Edfu texts, the Cairo Calendar text and P. Sallier IV all associate the Itn-fish with Busiris (Mendes), and P. Sallier IV and the Calendar text mention also the deity Ḥat-mehit. The nome sign for the Medesian nome shows a fish which has been identified as a dolphin, and the text numbering the Itn among the fish of the sea has been taken to support this proposal. Engelbach, on the other hand, compared the fish of this sign with the fish which determines the word but and the ḥ3 -fish (Mormyrus sp) and concluded that the fish of Mendes was the same as that determining the word but, the fish often called 'Schilbe' in Egyptological literature (probably Schilbe mystus, though Eutroplus niloticus is also possible).

A further few fish names have been deduced from words which show fish determinatives, notably but (Wb I, 453, 8ff: der Abscheu... of Wb I, 453, 5-6: verabscheuen) - but was also noted as a fish name by Wb (Wb I, 453, 4: Art Fisch) though from the texts quoted it is difficult to tell whether it was the fish (and not some other taboo food) which was meant; ark (not in Wb with fish determinative); sbnw (Wb IV, 89, 11: Art Fisch) var. bnt (not in Wb), and bs (not in Wb as a fish name).

Two words originally believed to be fish names are ph and tnt (Wb V, 306, 5-6: Art Fisch). However, these should be understood as 'hind-part' and 'whole' respectively, and the following fish hieroglyph in the texts read rmw 'fish'. This is also the case with pabhnt, recorded by Gamer-Wallert as the name of a fish. It appears to be a personal name with (in some cases) the 'seated man' (Sign List A1) determinative not written; the fish sign following must in all cases be read rmw, as other examples from the ostraca show.

Three additional words belong best in the category of 'fish' - wdlvt 'mollusc' (Wb I, 407, 6-9: etwas offizinell Verwendetes), but (Wb III, 218, 17: Muschel?) and nwr (not in Wb), which sometimes shows a fish as its determinative, translated by Meeks 'un animal marin(?).
The Egyptian term most closely expressing English 'reptiles' is *ddft* (Wb V, 633,6 - 634,2 : Wurm, Gewürm, auch : Schlange) which is discussed in the chapter on classification. The term seems to have had as its focus snakes and other wriggling or creeping creatures, as is shown for example, by the most common determinative of *ddft*, 𓊫𓊳𓊬, and by the replacement of *ddft* by *hfw* 'snake' (Wb III, 72, 14-20: Schlange) in some of the classification lists. Certain reptiles and amphibians, notably crocodiles, turtles and tadpoles, appear to have been considered by the Egyptians to have had closer affinities with fish than a snake-oriented class of animals (see further below), but will be discussed in this chapter for convenience.

It appears that the Egyptians seem to have included in the snake group (by giving them the 𓊫𓊳𓊬 determinative) animals which are not, in the modern zoological sense, snakes at all. An example of this is *lnr* (Wb I, 98,10: Art Wurm der Holz frißt) and presumably also the *k3ka* (Wb V, 142,9 : Art Wurm der Holz frißt) which replaces it in a parallel text, both of which (from the contexts in which they appear) must designate insect larvae. Compare also *p3w* (Wb I, 498, 5: Bez von Tieren, die im Holz leben (Würmer?, Ameisen ?)). Whether the Egyptians were aware of this, and merely determined *lnr* and *k3ka* with 𓊫𓊳𓊬 because they resembled snakes more than any other type of animal (mammal, bird, fish), as is the case with English 'woodworm' (the larval stage of the Common Furniture Beetle, *Anobium punctatum*), or whether they really believed the creatures to be a type of 'snake', is probably unknowable, though it is possible that they did realize connections between dissimilar forms of the same animal (eg tadpole and frog).

In view of the predominance of snakes in the Egyptians' concept of reptiles it is reasonable to begin with a review of the terms designating these creatures. *hfw* and *h3t*, the most common and most inclusive terms are fully discussed in Chapter 1, as are the words 𓊬, *sdrw, hriw-ht.sn* and *hr3t*, which may also be quite broad in application. A full discussion of snake names is somewhat hampered at present by the lack of any complete publication of the Brooklyn papyrus 47. 218. 48 + 85, sometimes know as the 'Snake-charmer's Manual'. This text was being worked on by Sauneron before his death and he published a preliminary description of it in 1968; in it the snakes of Egypt are described and associated with various deities. Although a certain
amount of information may be gleaned from studies which mention this papyrus, notably works of Vandier, Goyon and Sauneron himself, it should be borne in mind that much of the discussion below may have to be revised when the papyrus, currently in preparation by IFAO, is finally published. Altogether some 30 species of snake are known from Egypt today and this number may have been greater in antiquity; it would be interesting to see the extent to which the Egyptians recognised these species in this apparently thorough and systematic text.

Outside mythological texts (in which snake-names often seem to be only epithets derived from the animals' appearance and behaviour) terms for snakes are not particularly numerous or common. Many occur predominantly or solely in the medical texts as causes of disease, and, therefore, like the šnt and k3k3 mentioned above, are not 'snakes' as we understand them.

The špnt (Wb I, 180, 6-7: Art Wurm oder Schlange) occurs nine times in the medical corpus; its appearance in one prescription together with flies and beetles might indicate that it was a very small creature and this seems to be corroborated by the use in all but one prescription of the whole animal, rather than just parts of it. In a text from P. Ebers paralleled in P. Hearst šnt (Wb I, 191, 15-17: Art Wurm oder kleine Schlange, auch im Wasser lebend (ob Aal oä (?) )) replaces Hearst's špnt, which might suggest that the špnt too could be found in water. The word is determined by as well as which originally led Chassinat to distinguish two animals, translating špnt with cow's-skin determinative as 'otter'. However, both writings are found in P. Ramesseum III, which Wb. Prog. took as an indication that the two forms designated the same animal.

It should be noted that certain other animal names have varying determinatives, notably scorpions, frogs, tadpoles, turtles and certain insects. In all these cases the animals in question are anomalies within the classificatory system recognized by the Egyptians, namely a division of the animal kingdom into walking (mammals), flying (birds), swimming (fish) and creeping (reptiles) creatures. Frogs and turtles, in that they are both water-dwellers, share a characteristic with fish, but are clearly distinct from fish and may thus take a general animal (cow's skin) determinative. Certain insects fly like birds and thus have bird determinative, but those which do not might also take . Scorpions, which, like turtles, have their own specific determinative,
might also show ḫnt, though they were closely associated with the class ḏḏḏt which itself, representing a variety of creatures, might take ḫnt instead of ḫḏt as determinative.

’unnt may, therefore, be an animal of this sort - compare Barns' translation 'Perhaps "newt"'.17 - but any such interpretation must be modified by the absence of an alternative determinative for ḫḏt. Other translations have included snake18 or lizard,19 mole20 and worm or slug.21

Wḏt (Wb I, 279, 12-13 : Art Wurm) is attested only once in the medical texts, described as an animal found in excrement,22 and therefore translated 'grub' by Ebbell.23 It also occurs three times in the Harris magical papyrus as the bait which has attracted various birds24 and is perhaps to be translated 'maggot' (the larva of some type of fly).

Pnd (Wb I, 511, 4 : Art Eingeweidewurm) occurs six times in the medical texts, but only in Papyrus Ebers.25 The prescriptions recorded are designed to rid the body of the worms themselves26 and of the symptoms caused by them.27 One is intended to combat the illness caused by ḫḏt as well as pnd so the two are evidently similar.28 The ḫḏt is found in the stomach (m ḫt);29 one preparation against the pnd is to be applied to this part of the anatomy30 and another is to purge (wḥ3) the stomach.31 Ebbell identified the pnd as a tape-worm,32 a suggestion which was followed by Leca.33

Hrrwt (Wb III, 150, 1: Art Eingeweidewürmer ( im Bauch ) als Krankheitserreger) - compare here ḫrt (see Ch.1 : Classification)34 and hrrw (Ch.20: Insects) - occurs but once in the medical texts, again in the body (m ḫt).35 The identification of this creature as the 'schistosoma' worm36 was rejected by Ghalioungui; he believed hrrw to indicate the urinary blood clots (caused by this worm) themselves,37 and that hrrw (like ḫḏt, above) named a type of worm to which these threads of blood were similar. Wb. Droq. read the term as ḫrt and thus believed it to mean 'worms' in general. Without further attestations it is difficult to add more to these arguments.

Another internal parasite was the btw (Wb I, 985, 11-14: Bez. der Giftschlange, Bez. einer unheilbaren Krankheit, Bösewicht (?)), var. btw (Wb I, 484). In three cases the btw does appear to designate a complaint.38 In one instance in P.Ebers there is a warning: 'do not
approach it, it is a case to be avoided', and Wb. Drog. therefore explained its name: 'Die Grundbedeutung des Substantive btw ist wahrscheinlich "einer, vor dem man davonläuft" oder "einer, dem man aus dem Wege gehen soll".' 39 In P. Edwin Smith btw appears in a gloss which again counsels that the condition should not be treated.40 Ebbell identified btw as the hookworm41; this was questioned by Ghalioungui42 without suggesting an alternative translation. In another text the btw appears to have been a poisonous snake;43 elsewhere magic (ht-r) is to be invoked against it.44

Fnt (Wb I, 577, 5-6: Wurm, Schlange) were found in the fingers and toes45 (and presumably other limbs)46 and were also supposed to cause tooth-decay.47 Prescriptions to draw them out (qwd)48 or kill them outright49 are preserved. Magic was also used against them.50 Fnt were also known to infest decaying flesh51 and other substances.52 The fnt of a snake (htsw) may be related in some way to this word.53

Wb. Drog. questioned whether fnt did designate an actual worm or worm-like creature, since all the medical preparations are for external use (even probably the example from P. Ramesseum III as it comes between two medicaments to be used externally), and commented: 'viehmehr ist an ein wurmähnliches Gebilde zu denken, das offenbar aus geronnener Flüssigkeit (Eiter oä) besteht'.54 They compared here the 'ntt-worm which appears in a description of a 'thread' of blood (also called 'ntt).55 Nevertheless, the prescriptions which try to 'draw out' the fnt suggest that they were indeed real 'worms' (cf sD(di below), though the assertion that fnt could be found in teeth must be explained as a superstitious belief.

Fnt were numbered among the first created beings.56 They occur a number of times in the Book of the Dead57 and fnt ('worm swallower') was the name of the guardian of a gate in the underworld.58 In the Pyramid and Coffin Texts the fnt are presented as inimical creatures.59 A fnt of silver appears in P. Jumilhac.60

The word survived into Coptic as fnt (CD 623b: 'worm')61 where it is again particularly associated with rotting flesh. Vycichl compared the word with an Arabic word meaning 'manger toujours avec avidité, sans choisir ses mets ni se dégouter de rien'.62

Several other terms seem, like fnt, to designate the maggots which infest rotting matter. These are ḫahāk (Wb III, 168, 8: Würmer im
Leibe?), 63 ḫdr (Wb III, 214, 13: Art Würmer welche die Leiche fressen), 64 ḫtw (not in Wb), 65 ḫm (Wb V, 451, 6-7: Wurm), 66 var. ḫm (not in Wb), 67 ḫm (Wb V, 467, 12: Würmer (welche die Leiche fressen)). 68 The ḫm is also recorded as attacking old manuscripts. 69 The name may be derived from ḫm 'pierce, sting' (Wb V, 449, 1-7: stechen) and thus translated 'biter'. The word probably designates the larva of a type of insect.

The connection between 'snakes' and putrefaction is further indicated by Coptic λογια, from Egyptian ṣḥfnt (Wb II, 252, 10: Schleichendes, Gewürm70) or ṣḥfnt (not in Wb). 71 The Coptic word means 'rot, putrefy', 72 though the Egyptian clearly denotes an animal. ṣḥfnt is attested as ṣḥfnt ṣḥb, in parallel with ṣḥswb ṣḥb, ṣḥfb ṣḥb, which would suggest that it had a similar broad meaning. 73

Ṣḥsw (Wb III, 440, 17-18: als Krankheitserreger) and ṣḥbtt (Wb IV, 197, 17: Art Wurm) occur in one medical text together with ṣḥnt. 74 There is only one attestation of ṣḥbtt, but ṣḥsw also occurs as an infestation of fingers and toes, with the variant writing ṣḥpd (Wb IV, 108, 1:.. als Krankheitserreger). 75 It is possible that ṣḥpd is an entirely different creature. This same text also preserves the mention of a ṣḥi-worm, unattested elsewhere. 76

Two true snakes were used to write phonetic signs: ṣḏ, (Gardiner, Sign List I9: 'Cerastes cornutus') 77 and ṣḏ, (Gardiner, Sign List I10: 'Naia haie'). 78 Prisse d'Avennes identified the former as a slug because of a Dynasty 18 representation of the animal climbing a papyrus stem, 79 but Murray believed neither this opinion nor the identification of the ṣḏ as a Horned Viper. 80 Keimer 81 thought that the ṣḏ showed this snake moving by 'side-winding' and that cryptic signs for 'enter' and 'leave', showing an ṣḏ entering or leaving a hole (the ṣ-hieroglyph, Sign List Aa13), were derived from the snake's habit of burrowing into sand. 82 He believed that ṣḏ could be used as a determinative in place of ṣḥḥh. 83 He also noted a hornless variant which he identified as the species C.vipera. 84

Murray proposed the cobra Naia nigricollis 85 as a translation of ṣḏ; she believed it to be the same species as that of the royal uraeus, the rôle of which was to protect the King by vanquishing his enemies. 86 This was not the opinion of Störk 87 who accepted the identification of ṣḏ as Naia haie; he did agree that the poison-spitting N.nigricollis must have been the Egyptian uraeus, ḫrt (Wb I, 42, 1-4: Schlange,
There has been considerable discussion as to the reasons for which these snakes represented \( f \) and \( d \). It has been believed that the sounds may have been derived (on the acrophonic principle) from the names \( wfi \) and \( ajyt \) (not in \( Wb \)) respectively. Both \( f \) and \( d \) (\( Wb \ V, 503, 1-8; \) das Wort von dem die Hieroglyphe \( \overrightarrow{\text{\textit{f}}} \) ihren Lautwert \( d \) erhalten hat, die Viper, Schlange) appear in texts as nouns in their own right\(^9\) which suggests that they existed quite independently, though in the Sign Papyrus the \( f \) hieroglyph is explained by a longer word, partly lost (\( \text{ntv} \) or \( \text{fft} \) perhaps\(^9^2\) - though cf the comment of \( Wb \ I, 571, 12 \) (\( ft \)); das Tier, von dem das Schriftzeichen \( \overrightarrow{\text{\textit{f}}} \) sein Lautwert hat).

A few more terms are attested as snake names: \( \text{nk} \) (not in \( Wb \)), \(^9^3\) \( \text{nhvt} \) (not in \( Wb \)), \(^9^4\) \( \text{ht} \) (? not in \( Wb \))\(^9^5\) and \( \text{kmv} \) (not in \( Wb \)).\(^9^6\) All occur only once and therefore do not reveal much of their meaning. Of the remaining terms applied to snakes \( \text{si-t3} \) (\( Wb \ III, 410, 16-17; \) 'Sohn der Erde' als Bezeichnung der Schlangen), \(^9^7\) which has been compared with Coptic \( \overrightarrow{\text{\textit{ci}}} \) (\( CD \ 359a; \) 'Basilisk'), \(^9^8\) is the most common. From certain determinatives in the Pyramid Texts and the Book of the Dead and a vignette in P. Jumilhac, the \( \text{si-t3} \) appears to have been a cobra.\(^9^9\) It was possibly not a species designation, but merely a descriptive term. The \( \text{sabt} \) snake (\( Wb \ IV, 18, 2; \) bunte Schlange) twice occurs in the Old Kingdom in a title; it is possible that this term also designated an actual species.\(^1^0^0\)

\( \text{Kl} \) with snake determinative occurs in the Coffin Texts\(^1^0^1\) and the phrase \( \text{kl} \ \text{nv} \) is said to appear in the Snake-charmer's Manual.\(^1^0^2\) It may be that \( \text{kl} \) means merely 'male' (see Ch. 4: Cattle). \( \text{nv} \) occurs alone in one text as a variant of \( \text{hfsw} \) 'snake';\(^1^0^3\) together with the \( \text{hfsw} \) and \( \text{drt} \) on an ostracon preserving a piece of writing practice\(^1^0^4\) and as proverbially long-lived elsewhere.\(^1^0^5\) A possible variant of this word, \( \text{n}^w \) (\( Wb \ II, 207, 8-14; \) Art Schlange), is also attested;\(^1^0^6\) the forms \( \text{n}^w \) and \( \text{n}^w \) and the forms \( \text{n}^w \) and \( \text{n}^w \) occur in a papyrus from the British Museum.\(^1^0^7\) Störk\(^1^0^8\) suggested that this term applied to the python, not found in Egypt today but apparently the subject of an ancient cult.\(^1^0^9\) Borghouts translated 'smooth snakes'\(^1^1^0\) without further comment.

Although 40 species of lizards are known from modern Egypt\(^1^1^1\) the ancient language preserved the names of only two (a third, \( \text{sknka} \), is
known from demotic\textsuperscript{112}). The lizard hieroglyph (Sign List II) is also found with the reading \textit{dnf} (\textit{Wb} V, 453: das Wort von dem das Zeichen seinen Lautwert \textit{dnf} erhalten hat; compare \textit{dn} with 'snake' determinative noted above) and (in Ptolemaic texts) \textit{msdm}.\textsuperscript{113} and as the determinative of the \textit{ahw}-illness.\textsuperscript{114}

Both the terms designating lizards, \textit{s\textordmasculine}} (not in \textit{Wb})\textsuperscript{115} (also found in the Coffin Texts)\textsuperscript{116} and \textit{hnt3sw} (\textit{Wb} III, 122, 9: die Eidechse) are attested in the medical texts.\textsuperscript{117} In P. Ebers a \textit{hnt3sw} \textit{km} 'black \textit{hnt3sw}' is mentioned,\textsuperscript{118} indicating that at least two types of \textit{hnt3sw} were distinguished.\textsuperscript{119} The other type (or another type) may have been the \textit{hnt3sw} \textit{km} 'wild \textit{hnt3sw}' recorded on an ostraca.\textsuperscript{120} (Compare the 'wild ass' in Ch.8). A spell for changing into a \textit{hnt3sw} is recorded in Cairo Calendar.\textsuperscript{121} \textit{Hnt3sw} survived into Coptic as \textit{网约y\textordmasculine}} (cf demotic \textit{hnt\textordmasculine}});\textsuperscript{122} \textit{f\textordmasculine}} did not survive into Coptic in the same form, but is possibly preserved in the first syllable of \textit{\textordmasculine}} (see below on chamaeleons).

Coptic \textit{\textordmasculine}}\textit{\textordmasculine}}\textit{\textordmasculine}}\textit{\textordmasculine} (\textit{CD} 741a: 'lizard') has been compared with Egyptian \textit{hfnnt} or \textit{hfrn} which seem, however, to be variant forms of \textit{hfn(r)} 'tadpole'.\textsuperscript{124} There are other similar Egyptian forms apparently denoting snakes, \textit{hfnw} and \textit{hfnnt} (\textit{Wb} III, 74, 17: Bez für die Schlange; \textit{Wb} III, 74, 18),\textsuperscript{125} which may have a bearing on the Coptic term.

Griffith seemed to believe that \textit{hnt3sw} and \textit{f\textordmasculine}} designated the same species, which he gave as the 'Green lizard'.\textsuperscript{126} The hieroglyph as represented at Beni Hasan is indeed green; though it has the wrong number of fingers and toes - lizards have 5 toes and 4 fingers, while the Beni Hasan hieroglyph has 4 and 5 respectively.

Both \textit{dnf} (\textit{Wb} V, 576, 9 : als Personennname)\textsuperscript{127} and \textit{kara} (not in \textit{Wb})\textsuperscript{128} have been considered to designate the chamaeleon.\textsuperscript{129} As two species of chamaeleon are known from Egypt it is possible that both do apply to this lizard. Coptic \textit{\textordmasculine}}\textit{\textordmasculine}}\textit{\textordmasculine}}\textit{\textordmasculine}} (\textit{CD} 23a: 'chameleon') may be derived from a phrase \textit{\textordmasculine}}\textit{\textordmasculine}}\textit{\textordmasculine}} 'manifold of forms',\textsuperscript{130} referring to the chamaeleon's ability to adapt its colour to match that of its surroundings;\textsuperscript{131} alternatively the \textit{\textordmasculine}} may be related to Egyptian \textit{\textordmasculine}}\textit{\textordmasculine}} (type of) lizard'. Bohairic \textit{\textordmasculine}}\textit{\textordmasculine}} (\textit{CD} 411b: 'kind of lizard') has been compared with \textit{dnf}\textsuperscript{132} but no Coptic equivalent of \textit{kara} is attested. (For further discussion of \textit{kara} see Ch.14: Miscellaneous Mammals-\textit{k\textordmasculine}}).
Few species of amphibians are recorded from Egypt by Flower; he mentioned two frog species and three species of toad. Frogs and toads are both held to appear in Egyptian representations. Wb recorded two terms for the former: Cbhn, var. Cbn, (Wb I, 178, 15-17: der Frosch), occurring once in the medical texts, though more often in Ptolemaic texts, and krr (Wb V, 61, 5-6: der Frosch), also recorded in a medical text, and undoubtedly onomatopoeic. Although seldom attested, krr survived into Coptic as κρώος (CD 177a: 'frog'). No term for the toad appears in Wb, but poot (Wb I, 563, 8: ein Tier) has been considered to name this animal. The word is found in the medical texts, Dawson noted in his study of Ipnn that: 'it may be another kind of slug or snail'. Iversen later thought, because of the determinative of poot as a personal name at Maidûm, that it must be a frog or a toad. Despite this Oising recently translated the word 'Wassermolch'.

Hfn and its variants have been mentioned above. The tadpole as a hieroglyph was used, for phonetic reasons, for the number 100,000. The name may be derived from the verb hfnw 'être recroqueville'.

After Dynasty 18/19 the frog hieroglyph was sometimes used to write the phrase whm-qnh 'repeating life'. The association of frogs with resurrection and rebirth may have come about because of the yearly overland migrations of frogs during the mating season. Like snakes, mice and flies they were recorded by classical authors as being spontaneously generated out of the earth.

A number of terms for crocodiles are recorded in Wb: ad (Wb I, 24, 11: Krokodil); hr-mryt (Wb II, 110, 4: als Bez. der Krokodile: 'die am Ufer'); mhw (Wb II, 122, 20: als Bez. für die Krokodile); mah (Wb II, 136, 10-137, 5: das Krokodil) fem. meht (Wb II, 137, 1) var. hare (Wb III, 96, 11: Schreibung für mah Krokodil) fem. hemat (Wb III, 96, 12) var. hnt (Wb III, 104, 4: in ft-hnt, cf Wb III, 121, 14: Feind in Gestalt des Krokodiles); hnty (Wb III, 308, 4: Bez. für das Krokodil); hare (Wb II, 398, 5: ); awy (Wb IV, 65, 13-14: als Bez. für das Krokodil); kapw (Wb V, 105, 5-6: als Bez. für das Krokodil); dpy (Wb V, 447, 13-16: Krokodil). Other designations have been noted subsequently, notably hnd (Andreu Cauville, Vocabulaire II, p.17) and Nyty, var. HNY (AL 77.4231-4). Young crocodiles were called tsaawy 'fledgling'.

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Mhw, like mhvt 'fish', seems to be a general term, designating all crocodiles as a class of 'water-dwellers' and is seldom attested. Note that the figure of a crocodile may determine another term for water animals in general (jmwy-mw - see Ch.1: Classification). Dry may similarly indicate a connection with the crocodile's watery habitat (cf dpt 'boat') and may have meant originally 'floater'. (See also below). By far the most common name for crocodile was msh. All names presumably denote Crocodylus niloticus Laurenti, the only crocodile species of Egypt, also widespread in other parts of Africa.

Numerous texts attest that the crocodile ranked among the most deadly animals known to the ancient Egyptians, together with the lion, the snake and the scorpion. The bite of a crocodile is recorded in the medical texts; the Doomed Prince is fated to be killed by a crocodile, dog or snake and others also appeared to have this destiny. Death by crocodile is also recorded in other papyri. The work of the fisherman was scorned because of the perils of a workplace 'among the crocodiles'. In the Tale of the Two Brothers a river full of crocodiles is created as an insuperable barrier between them. Crocodiles were also a danger to cattle crossing the river, and numerous scenes from Old Kingdom tombs showing the warring of crocodiles and hippos graphically illustrate their viciousness. In some instances this was regarded as a laudable quality, and the king who attacked the enemies of Egypt was described as a crocodile. At the same time they were considered cowardly creatures; Asiatics who would attack only the defenceless were compared with crocodiles.

Crocodiles played an important part in magic and medicine; their rôle as an agent of fate and destruction was recently discussed by Eyre. The Westcar papyrus recorded that a wax model of a crocodile thrown into the river where a rival bathed became real and devoured him, and a spell spoken over a clay model of a crocodile was supposed to relieve a headache. Another text records a spell to be written on the ground over a figure of Amun with a crocodile under his feet. Their apotropaic rôle is indicated by their appearance on amulets and scarabs and a crocodile-headed god presumably for this reason attended the birth of the royal child. Crocodile fat (mrht) and excrement (hq) appear in the medical texts in prescriptions for various complaints; a fierce illness could be compared with a crocodile (cf ssh for a similar comparison).
The *mah* was the *hw* of Sobek,\textsuperscript{178} the crocodile god,\textsuperscript{179} and like other dangerous creatures, was associated also with Seth.\textsuperscript{180} The vengeful goddess Sakhmet was likewise described as 'foremost of the crocodiles'.\textsuperscript{181} The crocodile appears in a list of sacred animals, and in lists of tabooed creatures,\textsuperscript{182} though eating crocodile flesh in a dream was considered a good omen.\textsuperscript{183} In the underworld the deceased was threatened by crocodiles\textsuperscript{184} - the *mmvt*-creature which devoured the hearts of the unjust dead was part crocodile\textsuperscript{185} - but himself could overcome perils in the form of the crocodile.\textsuperscript{186}

On rare occasions *mah* appears in the same text as other terms showing crocodile determinatives, for example *hr-mmvt*, lit. 'those on the river-banks',\textsuperscript{187} *hnty*, lit. 'swimmer upstream' or 'lying on its face',\textsuperscript{188} *ad*, lit. 'the rager'.\textsuperscript{189} Both *hnty* and *ad* are common elsewhere, *ad* (almost) exclusively in mythological contexts.\textsuperscript{190} *Hnty*, though also used as the name of a deity\textsuperscript{191} and occurring in Ptolemaic temple texts,\textsuperscript{192} is found in texts referring to the crocodile as an animal.\textsuperscript{193} In one such text *hnty* is found with another term with crocodile determinative, *dpv*.\textsuperscript{194} This animal is found elsewhere identified with the pharaoh,\textsuperscript{195} and with Amun.\textsuperscript{196} Müller interpreted the name as 'Schwimmer' which is probably correct (see above);\textsuperscript{197} but Brugsch translated 'der Verschlinger, der Fresser'.\textsuperscript{198} In a Ptolemaic text at Kom Ombo *dpv* is used of Sobek;\textsuperscript{199} as with *hnty* this would suggest a meaning close to that of *mah*.\textsuperscript{200}

Other words with crocodile determinatives are only seldom attested. *Hnt* appears at Asyût in *ra-hnt* 'lac alimenté par des cours d'eau'\textsuperscript{201} and *hnty* in the Book of the Dead,\textsuperscript{202} and both are found in texts of Ptolemaic date. *Swy* is also found in the Book of the Dead in a spell which begins with the assertion that it will 'drive away a crocodile (*mah*)'.\textsuperscript{203} The term appears again, with crocodile determinative, in the toponyms *pr-swy* (Coptic ṭo, 𐍁 ordinances)\textsuperscript{204} and *lw-swt*.\textsuperscript{205} *Kdpw* occurs only once before the Greco-Roman period,\textsuperscript{206} and is presumably related to *kāp* 'hide' (Wb V, 104, 14-17: sich verstecken, sich verbergen). *Ra-hsā* again appears only once before the Ptolemaic era.\textsuperscript{207} *Hnd* was commented on by Meeks, who translated it 'celui (aux pattes) repliés (?).\textsuperscript{208} *Snī* was also recorded by Meeks with the translation 'crocodile', comparing *hnty* 'l'Ennemi'.\textsuperscript{209}

It seems likely from these texts, and from the zoological evidence, that all these terms describe a single species. *Mah* should be considered as the primary designation, with the other terms as epithets.
or descriptive of the animal's attributes which then gained currency as substantives. (Compare, for a similar practice, the terms for baboons discussed in Ch.10: Monkeys).

Although a number of turtles and tortoises are known to occur in Egypt the only common species which extends any distance inland is the Nile Soft-shelled Turtle, *Trionyx triunguis* (Forskål), a species found throughout all African inland waterways except in the north-west and south. This was the identification proposed by Loret for the *sbdw*, though, as was later pointed out by Dawson, this is a fish. There is in any case a well attested word with the determinative of a turtle (*Sign List I2* *štw* (Wb IV, 557, 1-5: die Schildkröte), variants *štw* (Wb IV, 556) and *štw* (Wb IV, 559). The word survives into Coptic as *ೃtC*, Coptic *东方财富* rendered by Arabic 'turtle' in the Scala texts has been compared with Egyptian *东方财富* (not in Wb but in Brugsch, *Wörterbuch* I, p.183).

*štw* occasionally appears in contexts which indicate that it designated the actual animal, particularly the medical texts and a text which records the eating of fish and turtles, but also on an amuletic ivory wand where it appears between a hippo and a crocodile. This use as an apotropaic figure shows that the turtle was feared - note the comment of Pritchard on sea-dwelling examples of *T.triunguis* near Turkey: 'fishermen find them so vicious they do not like to bring them aboard'. This was perhaps the reason behind the turtle's inamical association with Rē and why Seth, as protector of Rē in the solar bark, is recorded as killing the turtle along with the oryx and Apophis. Elsewhere the turtle appears as an associate of Apophis and the wish is often made that 'Rē live and the turtle die'. The *štw* was also believed to be able to swallow the water of the Nile, thus depriving Egypt of the river's life-giving properties and promoting famine. Its evil influence was destroyed symbolically in reliefs of Ptolemaic temples which show the king spearing the animal; the only known earlier (Ramesside) tomb-painting which shows the harpooning of a turtle presents it in parallel to a hippo-hunting scene, an arrangement reminiscent of the parallel fishing and fowling scenes of other tombs. The isolation of this example and the fact that turtles have been found as offerings from the Old Kingdom would indicate that the hunting of turtles as symbols of the 'Gottesfeind' was not an early theme.
štyw 'the two turtles' appears as the name of a constellation.226 A further example of the word, written ♏️, was recorded by Ṭb as a type of fish (Ṭb IV, 559, 2: Art Fische), though it also compared ṣtw 'turtle'. Given the context227 (especially the association with Rē) this comparison appears to have been correct. (On the use of the fish determinative see above and Ch.1: Classification.)

The very similar šttwt from P. Hearst was translated by Borghouts as 'tortoise (-shell) [?..]'.228 Meeks translated similarly as 'écaille, carapace de tortue (?)' and suggested a comparison with the šttwt of the Coffin Texts.229 (On the use of an animal's name to denote its skin see šnh, wnq, ṣbv, etc).
Chapter 20: Insects

There appears to have been no ancient Egyptian equivalent to the term insect; these small creatures were classified according to their appearance and mode of movement. Flying insects were categorized with birds and creeping insects with reptiles (see Ch 1: Classification).

Compared with other types of animals only a restricted number of individual insects were named and attestations of each name are few; the record may be distorted because of the types of texts which have survived. One of the most commonly mentioned insects, and doubtless the most significant, was the beetle, ḫpr (Wb III, 267,5-9: der Käfer den das Schriftzeichen darstellt), identified as Scarabeus sacer L³, but possibly naming other dung beetle genera - eg Copris - as well as Scarabeus.⁴ The word has been compared with other Semitic terms for the beetle.⁵ In one text the determinative of ḫpr is drawn with eight legs,⁶ but ḫprr is unlikely to be the name for the spider, which appears from an ostracon to be sḥtt (not in Wb).⁷ Scarab amulets were also named ḫprr.⁸

The characteristic habit of dung beetles of rolling balls of dung, to be buried as nourishment for their larvae hatching from eggs laid in it,⁹ led to their identification with the force behind the morning sun as it emerged above the horizon, and thence with other ideas of coming into existence and self-creation (ḥpr - Wb III, 260,7-265, 13: werden, entstehen etc).¹⁰ The soul of the dead pharaoh rising from his tomb was likened to this beetle¹¹ and Horus, among other forms of the sun-god, especially as creator, likewise was described as a scarab.¹²

The scarab and its wing appear as ingredients in medical prescriptions,¹³ and in a New Kingdom magical text.¹⁴ ḫprr also appears in the Book of the Dead¹⁵ and in the 'hieroglyphic dictionary'.¹⁶ ḫkwn (Wb III,178, 1: off verwendet) also occurs with the scarab determinative (Sign List Ll). This word is attested only once,¹⁷ in a medical text. The reading has been disputed and ḫkw n (ḥprr) (ḥkw not in Wb) suggested,¹⁸ though a very similar form, ḫknw (Wb III, 180,10 : als Name eines Gottes) is also recorded. Hornung, however, considered this to read ḫknw (ḥprr), 'Der Chepri preist',¹⁹ which seems to be a likely interpretation.
Ptolemaic texts also give špy/šbh and variants with the scarab
determinative and one text gives hprz as the equivalent of špy.21
These terms may be compared with the bird name šbw (Wb I, 175,1) and may
be derived from the same root, šp ‘fly’.22 (see Ch.17: Miscellaneous
Birds). The terms have been compared with Coptic 2a6oγελ ‘wasp’.23

Inh too is recorded by Wb as the name of a type of beetle (Wb I,
204, 7-8: ein Käferart). In Ptolemaic texts the word appears in or as
the name of an amulet (Wb I, 203,10: Name eines Amulett in
Käfergestalt), once taking the form of an špy-beetle,24 and once in a
late text a scarab is evidently to be read Inh.25 The Inh indeed seems
to have had an amuletic value from early times.26 No texts refer to
the animal itself; in the Pyramid Texts the name appears in puns27 and
two further attestations noted by Keimer show Inh as a personal name.28
Keimer tentatively identified it as 'le bupestridge [jewel beetles]
Steraspig...ou...l'élatéride [click beetles] Aegrypus notodonta
LATR[EILLE]’.29

Another term written with scarab determinative is špāy (Wb I, 181,
18: Art Käfer?).30 The animal, depicted in a vignette from the Book of
the Dead, appears quite different from the scarab,31 and a feminine
form of the word (Wb I, 131, 19: Art Heuschrecke?)32 shows the
grasshopper (Sign List L4) or cow’s skin as determinative. Dawson
identified the similar špāwt (also with cow’s skin determinative –
compare the presence of this determinative in the name of the flea,
pv, below) of certain medical texts with the špāyt, and suggested that
the scarab sign (Sign List L1) be read špāwt throughout these texts.33
He also noted the later confusion of špāy and šōl ‘pig’ in the Book of
the Dead (including the vignettes),34 which indicates that the word was
or became rare and was not well understood. Coptic επηγέ (not in Wb)
appears as a gloss in a demotic text) has been considered the
descendent of špāyt,35 though Černý proposed instead Aramaic hipppōlt ‘blackbeetle’ as the origin of the Coptic word. špā with turtle
determinative may be related to this term.36 Taken together, the
evidence suggests that špāyt(t) was an insect of some kind, similar to a
large beetle or grasshopper, and possibly, therefore, a cockroach.37
Keimer, however, suggested it must have been a small beetle such as
those found in mummies because of the spell in the Book of the Dead to
prevent them from attacking the corpse.38

Two further possible terms for beetles are škwp-t3 (Wb I, 139, 7:
offizinell verwendet (neben Würmern und Fliegen)) and mht (not in Wb).
Both are attested only once. In P. Ebers $\text{iw-n-t3}$ has no determinative, but in the Pyramid Texts the verb $\text{iw}$ has a variant determinative showing a beetle; this determinative also appears in the Coffin Texts. The verb is also associated with $\text{tt}$ 'earth' and appears to indicate a deferential gesture. Sethe suggested 'Erdangreifer' for $\text{iw-n-t3}$, comparing other words of this stem associated with quarrying, and took the phrase to be an epithet of the scarab. Meeks also took it as a phrase for a burrowing animal ($\text{Al}$ 78.0524 : le fouisseur (?) ); Dawson translated 'earthworm' and Ebbel 'millipeds(? ). The Pyramid Text determinative of a beetle suggests that these last are wrong, but no further identification than 'type of burrowing beetle(?)' can be proposed.

$\text{Mht}$ appears only in the Coffin Texts in an obscure phrase which Faulkner did not translate; he offered $\text{m h}$ as an alternative reading.

The term for 'fly', $\text{ff}$ ($\text{Wb}$ I, 182, 14–16: die Fliege), is attested from the Middle Kingdom onwards and survived into Coptic as $\text{Afy}$ . The meaning of $\text{ff}$ is made clear by its specific determinative (Sign List L3; the bird or cow's-skin determinant appears in later writings) and its application to the gold flies awarded to soldiers for their exploits in battle - presumably for showing the same tenacity as displayed by flies at their targets. $\text{ff}$ are described as 'flying', and as 'lying down (ie dying?) and being born every day', both of which would accord with the translation 'fly'. They were apparently supposed to eat lice ($\text{ktt}$ ).

Flies appear frequently in the medical texts, usually as an ingredient (a considerable quantity of their excrement is mentioned in medical preparations and may have been collected from the walls of houses). One prescription is directed against their bites and spells for protecting the pharaoh from the attack of flies are attested. A further spell for 'cleaning a fly' which has been swallowed is known, and in another a magician changes into a fly to enter the belly of his enemy and cause him pain and confusion. However, in the Coffin Texts a fly is described as 'beneficial'.

Some late variants of $\text{ff}$ are written $\text{ffy}$ or $\text{f}$, and this spelling with a different (bee) determinative is recorded separately by $\text{Wb}$ ($\text{Wb}$ I, 182, 10: die Biene). Pleyte, who first isolated the word $\text{ff(y)}$ with 'bee' determinative, identified the creature so named as a
wasp, but the meaning 'bee' for (fy is proven by one text which speaks of the creation of bees (fy var. (ft) and honey from the tears of Ref, this is confirmed in a Ptolemaic text from Edfu.

The word bit (Wh I, 434, 1-5; die Biene; compare Wh I, 434, 6-12; Honig < Coptic εγιαμ) is seldom attested as the name of an insect and occurs only in Middle Kingdom texts (unless by and bw below are variant writings of this). In the New Kingdom appears the phrase (fy... in bit (Wh I, 182, 11: die Honigbiene; Wh I, 434, 10; Honigbiene); it is tempting to suppose that at this date bit was used only of honey and a new designation had, therefore, to be found for the bee. The New Kingdom writing of eff 'fly' was borrowed and the term (fy... in bit - Coptic αληθινός 'bee' - was formed. Unfortunately, this explanation would not account for the writings by and bw (see below), possible variants of bit; by is attested from an ostracon of the New Kingdom.

Eff may have been derived from a root meaning 'to fly' (cf fy, bb above), although a root ff 'hum', 'buzz' has also been suggested.

A number of other terms have been considered to name bee- or wasp-like insects.

Byv (not in Wh) is attested in an ostracon from Deir el-Medina which recounts a hymn to the Nile. This may be compared with the very similar bw (not in Wh) from the Coffin Texts, which Faulkner translated 'hornet(? )'. It is possible that both are variants of bit 'bee', especially as the former text mentions the insect gathering (smi, lit. 'uniting') honey.

Hrrt with 'bee' determinative is also attested once only from the Coffin Texts. There is, however, a word hrrt (Wh III, 150, 1-3) with 'snake' determinative, apparently denoting the class 'reptiles', which is frequently attested in the texts (see Ch.1: Classification). Faulkner translated the Coffin Texts example 'blow-fly', commenting 'it may perhaps stand for the kind of insect that infests rotting flesh'. Vycichl, Černý and Crum all compared hrrt with Coptic ζαλκα, 'beetle(? )', but the 'bee' determinative argues against this as a translation of the Egyptian word. Hrrt may have named a beetle with bee-like characteristics (cf hspdr) or be a general descriptive term for which a number of determinatives may be appropriate (cf ḫmyw-mw, hrvw applied to fish, but also to other animals and people.
respectively), the choice of determining sign bringing a more precise meaning to the word. Alternatively both words may have developed separately from a common root.

The bee determinative also appears as a variant in the word ḫnḥr (not in ṳḫb), written with a specific determinative in the Coffin Texts. The term appears in another text with the 'bird' determinative (Sign List G38/39); a variant of this, written ḫhr, has the 'bee' as determining sign (Sign List L2). Faulkner translated this word 'hornet'. The evidence would indicate that ḫnḥr was a flying insect, of the shape depicted in the Coffin Texts and with (some of) the attributes of a bee (a sting?). The specific determinative is similar to that of ḳṭt and ḳḥḥ, neither of which can be translated with certainty, though the former may mean 'louse'.

A determinative somewhat similar to that of the 'bee' appears in the word ṭkkt (Ṭḫb V, 336, 12: Ṯḥ Schupfwespe (Ichneumonidae)). The term is attested only once, in the Pyramid Texts, where it appears in a rather obscure phrase together with the grasshopper (ṣḥḥm). The phrase was translated by Keimer: 'N est né le deuxième jour du mois et il est devenu enceint le 15 du mois, il est sorti de la vertèbre de la sauterelle parmi ces enfants de guêpe.' The word is probably to be compared with the verk ṭkk (Ṭḫb III, 336, 2-10: angreifen) which suggests that ṭkkt was an aggressive stinging insect. Faulkner offered 'hornet(? )'.

Another insect name to which the 'bee' determinative has been ascribed is ḫḥy[t (not in ṳḫb). Determinatives in the Book of the Dead have an unusual form which was identified by Budge as that of a praying mantis (Mantis religiosa). In copies of this passage, though in a confused form, in the tomb of SethesI and on an ostracon from Cairo, Keimer noted much more accurate representations of this insect; because the sign was not accompanied by phonetic complements he did not commit himself to identifying these pictures with ḫḥy[t. Further variant determinatives show different insects, others show a bird, or the head of a bird, which Keimer compared with the hieroglyph ⲛ (Egyptian vulture); Faulkner distinguished this word ('ḥḥḥḥt-bird'; note here ḫḥy denoting a bird) from the insect name which he translated ('ḥḥḥḥḥt' wasp(? )'). ḫḥy[t may be derived from ḫš(w) 'dance' (Ṭḫb I, 62, 8-13: tanzen - compare the ḫḥḥ animal, Capra ibex nubiana) which could refer to the stately gait of the mantis; Keimer also compared the Ptolemaic term ḫḥb applied to the scarab.
Remains of a mantis larva were found among bandages at Deir el-Medina; these were identified as belonging to the species *Sphodromantis bioculata*. Störk also suggested *Eremiaphila turcica* as an identification of the ancient Egyptian mantis.

Grasshoppers, *snhm* (*Hb* III, 461, 6-8: *die Heuschrecke*), most frequently appear in Egyptian texts as indicative of large numbers (particularly of the king’s enemies). Their destructiveness in the fields was also noted, and writings of the term as *sn-n-snhm* 'son of seizing' pun on this characteristic. Despite the obviously poor reputation of grasshoppers *snhm* occurs as a personal name.

Grasshoppers are frequently depicted in tomb reliefs in the 'fishing and fowling' scenes, both flying (these forms were first identified as dragonflies) and at rest. Keimer compared these representations, and others, with the *spt-snhm* 'field of grasshoppers' mentioned in the Book of the Dead. Grasshoppers appear to have been caught in nets, but for what reason is unknown - *snhm* are not mentioned as ingredients in the medical texts.

As well as appearing with the *tkkt* (see above) the grasshopper occurs in the Pyramid Texts as one of the forms in which the deceased pharaoh might reach heaven. This wish ends with the phrase *ny ṣḥ*, which has been translated 'obliterating Ṣḥ', and might refer to the obscuring of the sun by the swarming insects. Keimer attributed to grasshoppers 'un rôle important dans les concepts religieux ou superstitieux', this opinion being supported by the occurrence of amuletic-type objects and rings bearing representations of the insects.

Keimer noted two further terms applied to grasshoppers in pharaonic Egypt, as well as several from Coptic. The first, *ḥ3*, occurs in a phrase concerning sailing to Abydos, which may be compared with the ferrying of grasshoppers mentioned in P. Hearst. Lefebure, on the other hand, compared the term with the word *ḥpwt* 'praying mantis' (see above). The second, *w3t*, is inscribed on the back of certain grasshopper-shaped amulets; Keimer supposed it to mean 'green', literally 'die Papyrus-farbene'.

The most common Coptic terms were *CANNES*, translated 'grasshopper', derived from *snhm*, and *WATS*, translated 'locust', from demotic *ṣḏ*s. The terms 'grasshopper' and 'locust' describe groups of...
the family Acrididae displaying either solitary (grasshoppers) or gregarious (locusts) habits. This distinction does not appear to have been made by the ancient Egyptians. Altogether, over 80 species of grasshopper and locust occur in Africa, including Egypt, today. Many species are very similar and isolating any of them from the reliefs is problematic. Despite this Keimer identified the grasshopper depicted in tomb scenes as the Desert Locust, Schistocerca gregaria Forskål, though considering another species, Anacridium aegyptium L, a further possibility, but not the prototype of the drawings. The former is distributed across Africa, Portugal and southern Spain, through the Middle East to north-western India; the latter is found throughout temperate regions. It may be assumed from the very wide present-day distribution of the Migratory Locust, Locusta migratoria L, that this species was also found in ancient Egypt.

Other insect pests mentioned by the ancient Egyptians are those which affected their persons—fleas, lice and other biting creatures. The flea, $\text{pv}$ (Wb I, 502, 2: der Floh), Pulex irritans, Coptic $\text{πθί}$, was regarded, with the $\text{hnws}$ (Wb III, 290, 2-3: ein stechendes Insekt: Mücke oä), as a proverbially insignificant creature. Two methods for ridding a house of fleas are described in P. Ebers. The flea was one of many animals whose form could be adopted by the deceased on his way to the next world. The word is derived from $\text{pv}$ (see Prinzengesch 6, 1), 'jump' which may itself be linked to an ancient root meaning 'fly'. This etymology, and the determinative in the Coffin Texts, leaves little doubt as to the correctness of the translation.

$\text{pv}$ appears also in a list of bird names on an ostracon from the Ramesseum. This is perhaps to be read 'flea' rather than $\text{pwy}$ 'bird' and the term which follows it and begins $\text{bn}$ may be restored $\text{bnws}$ or $\text{bnms}$ (Wb III, 295, 12: die Mücke). $\text{hnms}$ is recorded elsewhere as an insect plaguing a soldier who is on duty away from Egypt, together with the $\text{dwt}$ (Wb V, 552, 7: ein lästiges Insekt (neben Mücke); also read $\text{swt}$) and the $\text{hm}$ (Wb III, 281, 12: Sandfliege, die in die Füße sticht). $\text{hnms}$ and $\text{hnws}$ appear together again in a text describing the torments of a boatman while at work.

$\text{hnms}$ and $\text{hnws}$ were considered by Laucau (as by Wb) to be variants of the same word, derived from a root $\text{hn}$ 'sting'. This might accord well with the description of a heart complaint as $\text{hnws}$ (Wb III, 290, 4: als Krankhafter Zustand des Herzens) — presumably a sharp, stinging
pain is intended.\textsuperscript{133} \textit{Hnms} has also been compared with \textit{hnn} (Wb III, 292, 4-9: riechen, einatmen) 'smell'; the insect when biting or sucking blood would be seen as 'smelling' its victim.\textsuperscript{134} The \textit{hnms} is described as 'biting' in the medical texts\textsuperscript{135} and may have pestered jackals (\textit{wnk}) as well as man.\textsuperscript{136} A hieroglyph in the 'opening of the mouth' texts should apparently - from the gloss - be read \textit{hn(w)m},\textsuperscript{137} and certainly seems to have the appearance of a stinging insect.

\textit{Hmv} is also attested in a late text describing the condition of people during floods;\textsuperscript{138} as the flood waters rage around them they behave like \textit{hmv} - presumably disposed and therefore frantic, like a scurrying insect. Caminos\textsuperscript{139} associated the term with \textit{hm} 'demolish, break through' and translated the phrase \textit{hmv} as \textit{ruvdw} as a compound name 'leg-piercer'. This he believed to denote the 'sand-fly', as did Wb. The same root was taken by Heeks\textsuperscript{140} to mean 'devour', and indeed \textit{hmv} was originally compared with the Coptic name for the proverbially greedy pelican, \textit{zamh}.\textsuperscript{141} However, this name probably has a different etymology.\textsuperscript{142} The term \textit{dwt} has received little attention; Caminos gave a 'conjectural rendering of "midge"'.\textsuperscript{143}

The \textit{ktt} (not in Wb) is mentioned in the Coffin Texts as coming from a man's head\textsuperscript{144} and, by comparison with Coptic \textit{KAKTE} 'louse'\textsuperscript{145} has been translated in the same way. The word also appears in a spell for preserving the deceased from decay and labour in the afterlife - the \textit{ktt} is described as 'chewing' (\textit{wger}),\textsuperscript{146} which might refer to their biting, or indicate that they were believed to infest corpses (compare \textit{hrt} above). The word's determinatives, which resemble that of the flea in the Coffin Texts to a greater or less degree, would seem appropriate to this meaning, and it seems reasonable to translate '(head)louse' - \textit{Pediculus humanus corporis} de Geer, \textit{P.h.capitis} de Geer. The word probably means nothing more than 'small' (Wb V, 147, 2-12: klein sein, klein)\textsuperscript{147} and it is impossible to say whether \textit{ktt} was applied to lice alone or other 'small' insects as well. The Egyptians apparently believed that they were eaten by flies (\textit{ff}) - see above.

The centipede, \textit{spL}, (Wb III, 441, 4-5: der Tausendfuß)\textsuperscript{148} appears, despite the smallness of these creatures, as a deity,\textsuperscript{149} and all attestations of \textit{spL} as a noun should perhaps be understood in this way.\textsuperscript{150} (A reference in the medical texts to 'centipede fat' should be deleted).\textsuperscript{151} The name may be derived from a word meaning 'to be flexible', 'to be jointed';\textsuperscript{152} the insect (identified by Brunner\textsuperscript{153} as \textit{Scolopendra adhaerens} Forskål) itself may have given its name to a
carrying chair with many porters (and thus many-legged). Although the term has been compared with \textit{sp} (Wb III, 440, 17-18: als Krankheitserreger) it is unlikely that the two are identical, or even related.

A number of terms identified by Wb or others as the names of insects occur so infrequently in the texts that they cannot be translated. In some cases it is difficult to establish whether an insect or bird is intended as the general bird determinative was used of certain flying insects. It should not be forgotten, however, that the same name might be used of more than one animal - compare \textit{abnn} with both fish and bird determinative - and the comments below should be read in this light.

One text, for example, records the \textit{tit} (not in Wb) as being eaten by the \textit{chv}-bird. Although \textit{chv} is attested several times as the name of a bird (even once apparently denoting all birds) its translation is not certain (see Ch.16: Birds of Prey). It is recorded elsewhere as eating 'sparrows' (?) - \textit{tt} (Wb V, 413, 14-15: Sperling) - and \textit{tit} may be a variant writing of this, rather than 'an insect' as suggested by Shorter. Some birds, such as the Hobby and Lesser Kestrel (both found in modern Egypt), eat both insects and small birds, which is unhelpful in the interpretation of \textit{tit}.

\textit{Kv} (Wb V, 17, 2: die Vögel) might denote an insect rather than a bird. In a hymn to Amun, the creator is described as giving life to the fish in the river and the birds in the sky and 'creating that on which the \textit{hnws} live, the \textit{ddft} and \textit{pwv} likewise, creating provender for the \textit{pnw} in their holes, giving life to the \textit{lk} in every tree'. Since this part of the text is concerned with very small animals, and birds have already been mentioned in the usual place with fish, it seems unlikely that \textit{kv} designates a bird.

The medical texts contain several such ambiguous terms. The \textit{thhnt} (Wb I, 116, 3: ein Vogel oder ein Insekt) is mentioned together with its 'feather' (\textit{hw}); although this might suggest a bird it should be noted that the \textit{hw} of a scarab beetle is also attested in the medical corpus (see above). Wb also suggested a reading \textit{th-hnt} (the word has also been transcribed \textit{thhwt}) comparing the bird-name \textit{th-hst} (Wb I, 142, 9: ...als Name eines Vogels). \textit{bih} (Wb I, 442, 11: Art Insekt(?)) is recorded together with its 'house', translated 'Nest', in P. Ebers also. Wb. Drog. suggested 'Ob \textit{bihw}: eine Wespenart'.

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The blood (enf) of a hw (Wb III, 56, 5: Art Vögel oder Insek) is used together with the blood (enf) of a fly (ffe) in a prescription to reduce swellings, 165 which might suggest that another insect is intended. Apart from the hw, ffe is the only insect the blood of which is used in the medical texts, 166 while the blood of several different birds (enf, mnt, hnt, ann, g3bow) is attested. The phrase hwu n spdw 'den Schwachen unter den Vögeln' and the use of hwu (Wb III, 56, 6) as an epithet of the vulture goddess of El-Rāb would also indicate that hwu is more likely to denote a bird than an insect. 167

Shyht (Wb IV, 210, 13: ein Insek) may also be a variant of the variant eht (Wb IV, 209, 8) or eht (Wb IV, 209, 8), probably an Allen's Gallinule, Porphyrula alleni, depicted at Beni Hasan (see Ch.15: Waterbirds). The use of a long-legged bird in the treatment of part of a leg (mst knee) 168 would seem appropriate though the use of whole birds is not attested elsewhere in the medical texts. 'One large scarab beetle' is prescribed (see above), and this might indicate that a large insect is intended by shyht. It may be that the shyht and eht shared some common feature, such as colouring, and thus shared the same name. 169

A further three insect names are indicated by the presence of insects as the determinatives of verbs. Sh (Wb III, 432, 12: von unfreundlicher Gesinnung... vgl. die Schreibung von ebn; the latter, Wb III, 433, 7-16, sometimes has a fish as determinative) shows a creature with antennae and four legs170 (note that the 'bee' hieroglyph also shows four legs). 171 K3 (not in Wb) shows a determinative like that of pwy or ktt in the Coffin Texts, varying with the 'leopard head' (Sign List F9). 172 An insect with antennae and outstretched wings, identified as a butterfly, determines s33 (Wb III, 422, 7: Öffnen (von den Ohren)). 173 Keimer compared the verb s33 'open (of doors)' Wb III, 481, 14-482, 14: öffnen, esp.482, 1-4 (of doors) noting the similarity in motion of the leaves of an Egyptian door and the wings of a butterfly at rest; he also noted that Egyptian representations show undivided wings, like the determinative. 174 Identification of the butterfly species depicted is difficult. Keimer suggested the African Monarch Butterfly, Danaus chrysippus; Vanessa sp has also been put forward (this genus includes the Red Admiral and Painted Lady). 175

Wb records a number of words with a scorpion176 as determinative, of which w3t (Wb I, 351, 1-2: Skorpion), var. w3fw, 177 and d3t (Wb V, 526, 15-527, 5: Skorpion), 178 later d3tv (Wb V, 577), are the most
common. Both these words may show the 'cow's-skin' as variant determinative. Although scorpions appear to have been ranked with the ddft (see Ch. 1: Classification) their place was clearly ambivalent, as the use of the usual 'mammal' determinative shows (compare writings of ērw 'turtle', krr 'frog'), and they are discussed here with insects for convenience.

Dart was the more ancient of the two words, being attested from the Old Kingdom onwards. Like ḥt, it survived into Coptic (šAH 'scorpion', Bohairic only). Unlike ḥt it is attested as a personal name.

The 'bites' (pesh) of scorpions (dart) were warded off by medical prescriptions and by magical spells, the latter being much more common - presumably no effective rational remedy could be found for scorpion stings. In one text the stinging (ddh) of its tail is mentioned. It was also described as piercing (ddm - Wb V, 634, 19-20: stechen) and causing stings (dm - cf Wb V, 449, 1-7: stechen). Its tail was elsewhere called its 'horn', a designation also found in ancient Mesopotamia. In another text the scorpion (whc) was described as having a 'long back and many joints'.

Dart was often associated in the magical texts with other harmful beasts, notably snakes (hf3w, nřw), but also the crocodile, lion (m3 l) or other wild animals (m3). Whc likewise appears in many texts calling for protection from various creatures, especially the snake (hf3w) and crocodile (pesh). Some texts include the scorpion ideogram without writing out a specific name.

The ḥt is recorded as biting (pesh), raging (ḥpt), and its poison (mtwt, the same word as for the venom of a snake, or, more poetically, mw mr 'waters of illness') is also mentioned. Some funerary texts only show scorpions in a mutilated form in order to render them harmless. The term occurs usually in the New Kingdom and Ptolemaic texts, though a Middle Kingdom example is known.

The term ḥt, Coptic oçooçε, may be derived from a root ḥt, 'prick, pierce' which is attested in the Metternich Stela as the action of a scorpion. The word may be compared with the name of a fish (Synodontis sp) which has long 'piercing' dorsal spines. This term is attested from the Old Kingdom onwards (see Ch. 18: Fish); ḥt meaning 'scorpion' was evidently a later development.
Scorpions were associated with a number of deities, notably Isis (the \textit{wht}), and Atum (the \textit{drt}), an underworld daemon with scorpion head is also known. Selkis, Egyptian \textit{Srtk}, probably derived from a Semitic root meaning 'cut', was the appropriately named goddess whose 'Erscheinungsform' was a scorpion.

That \textit{drt} and \textit{wht} were not entirely synonymous is indicated in the Late Period Metternich Stela where both appear in parallel with another animal, \textit{Int\(\ddot{u}\)} (\textit{Wb} I, 102, 12: ein böses Tier (neben Schlange und Skorpion)). The \textit{wht} is described as 'pricking' (\textit{wht}), the \textit{drt} as 'piercing' (\textit{ddb} - \textit{Wb} V, 632, 7-10: stechen - note also \textit{ddbt} with scorpion determinative (\textit{Wb} V, 632, 11: Skorpion), obviously, like \textit{wht}, a descriptive name for this animal) and the \textit{Int\(\ddot{u}\)} as 'lurking' (\textit{sin} - \textit{Wb} IV, 38, 4-8: warten, esp. 6: Auch vom Skorpion der auf den Vorbeigehenden lauert). \textit{Int\(\ddot{u}\)} and \textit{drt} also occur together in one of the Chester Beatty texts.

Later in the Metternich stela the \textit{Int\(\ddot{u}\)} is mentioned after snakes; elsewhere scorpions were recorded in this position. If the \textit{Int\(\ddot{u}\)} were not a scorpion it must have been some very similar creature, but probably not a spider, as Gardiner and Borghouts translated (see above for \textit{shtt}, 'spider'), nor Drioton's 'insecte vénimeux'.

An interesting collection of words with scorpion determinatives is found in certain magical texts. The seven scorpions following Selkis, or conjured by Isis, have names with a magical significance: \textit{tfn(t)} (\textit{Wb} V, 299, 7: Names eines Skorpions), \textit{bfn(t)} (\textit{Wb} I, 456, 1-2: Name eines Skorpions), \textit{ttt} (\textit{Wb} I, 566, 4: Name eines Skorpions), \textit{mtt} (\textit{Wb} II, 33, 16: Name eines Skorpions), \textit{tttt} (\textit{Wb} V, 413, 5: Name eines Skorpions), \textit{mstt} (\textit{Wb} II, 152, 5: Name eines Skorpions) and \textit{msttf} (\textit{Wb} II, 152, 6). The use of labials, especially \textit{p} and \textit{m}, has been noted in the formation of magical words and names; a similar string of words is found in a demotic magical papyrus. As these words are not attested elsewhere as denoting scorpions they should be understood merely as magical charms.
Works frequently cited in the thesis are given in both abbreviated and expanded forms; abbreviations adopted without alteration from Wr and Meeks, AL, are not included as they may easily be found by referring to those publications. For abbreviations of the titles of periodicals and series see the List of Abbreviations at the front of the thesis.

Sections 1 and 2 are not exhaustive. In many cases an article or monograph is concerned with only one or a few animals or animal names and full details of these may be found by reference to the index and the footnotes of the relevant chapters.

Dates given are of first editions and most recent editions used.

Section 1: Egyptology and Related Subjects

AEO - see Gardiner.

AL - see Meeks.

Albright, VERSO:

Allam & Černý, Ostraka und Papyri:

Allen, BOD:

Alliott, Culte d'Horus:

Altenmüller, Zauberspruch:
H. Altenmüller, GM 33 (1979) 7-12: Ein Zauberspruch zum 'Schutz des Leibes'.

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Andreu & Cauville, Vocabulaire:

Assmann, Liturgische Lieder:

BOD: See Totb Nav; Totb Leps; Allen, BOD; Barguet, LdM.

Badawy, Iteti:

Barguet, Famine:

Barguet, LdM:

Baines & Mālek, Atlas:

Bakir, Cairo Calendar:
A. el-M. Bakir, The Cairo Calendar No. 86637 (Cairo 1966).

Barnes, Five Ramesseum Papyri:

Barta, Opferformel:

Barta, Opferliste:
Barta, Selbstzeugnis:
W. Barta, Das Selbstzeugnis eines altägyptischen Künstlers (Stele Louvre-C14) (Berlin 1970): WÄS 22.

Bénédite, Carnarvon Ivory:
G. Bénédite, JEA 5 (1919) 1-5: The Carnarvon Ivory.
225-241: The Carnarvon Ivory II.

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J. Boessneck, *Die Tierwelt des alten Ägypten* (München 1988)

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Boreaux, Guide-catalogue:

Borghouts, AEMT:

Borghouts, P. Leiden I, 348:

Botti, Sobk:

Botti & Peet, Giornale:


Brugsch, Wörterbuch:
Brunner, Geburt:

Brunner, Lehre des Cheti:

Brunner-Traut, Bildosraka:

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B. Bruyère, Rapport sur les fouilles de Deir el Médineh 1930 (Le Caire 1933): FIFAO 83.

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Budge, Dictionary:

Budge, Facsimiles:
E.A.T.W. Budge, Facsimiles of Egyptian hieratic papyri in the British Museum; with descriptions, summaries of contents, etc. (London 1910-1923).

Budge, Greenfield Papyrus:
E.A.T.W. Budge, The Greenfield Papyrus in the British Museum; the funerary papyrus of Princess Nesitanebtashru... about B.C.970 (London 1912).

Burchardt, Fremdworte:
M. Burchardt, Die altkanaänischen Fremdworte und Eigennamen im Ägyptischen (2 vols.) (Leipzig 1909-10).

CD - see Crum.

COA - see Pendlebury; Peet.
CT - see de Buck.

Caminos, *Fishing & Fowling*:
See Caminos - Literary Fragments (Ch.1).

Caminos, LEM:

Caminos, Literary Fragments:

Caminos, Ibrim:

Caminos, Tale of Woe:

Caminos, Temples of Buhen:

Capart, Primitive Art:

Carter & Mace, Tomb of TutAnkhAmen:

Carter & Newberry, Tomb of T.IV:

Černý, CED:
Černý, (O. DelM): 

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Chabas, Papyrus Magique Harris: 
F. Chabas, Le Papyrus magique Harris (Chalon-sur-Saône 1860).

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Crum, CD: 

DGI - see Wb, Düm Geogr Inschr.

DHI - see Wb, Düm Hist Inschr.

Daressy, Cercueils: 

Davies, Five Theban Tombs: 
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bear - see hmt
ichneumon - see mongoose
mongoose - see 'd
mouse - see pnw
otter - see 'pnnt, hstrw
ratel - see at
shrew - see hstrw
weasel - see inh
zorilla - see gsfnw