#### CHAPTER 30

# Food in Ancient Egypt<sup>1</sup>

### Pierre Tallet

#### Introduction

To discuss ancient Egyptian cuisine is something of a challenge. Although a rich iconographic repertoire allows any visitor to the Nile Valley today to obtain extensive information on the different cycles of agricultural production – these are represented in a very repetitive manner in the tombs of important officials from the Pharaonic period – we have no further concrete information, with rare exceptions, to give us a clearer picture of the recipes used at that time: no cuneiform tablets such as those discovered in Mesopotamia, which enable us to reconstruct in outline "the world's oldest cuisine" (Bottéro, 2002); no book of Apicius to list, albeit succinctly, the ingredients of the dishes. Any attempt to discuss the Egyptian diet must therefore be based on a very heterogeneous set of sources: the medical papyri that - in the recipes of medicinal preparations - give an idea of cooking techniques in use at the time of the pharaohs; accounting records that detail products received, for example by major religious institutions or the royal kitchens. The many archaeological sources should of course be added to these - whether it be spoil heaps found on ancient sites, or food offerings deposited at all times in the tombs, which can sometimes allow a more direct idea of what the Egyptian diet truly entailed.

Early research that addressed the theme of food has mainly relied on descriptions of reliefs and wall paintings of tombs (Montet, 1925; Keimer, 1939; Vandier, 1964; Wild, 1966). Others have sought additional information in the sources of Greek and Roman times, often more abundant (Darby, Ghalioungui, & Grivetti, 1977), the effect obtained being sometimes a too "static" vision of Egyptian food culture over a period spanning more than three millennia of history. The most recent studies now take the evolution of food practices throughout the Pharaonic period into account (Peters-Desteract, 2005). A genuine criticism of available iconographic sources has also emerged, combining detailed analysis of the stages of preparation of various categories of food

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(Ikram, 1995), while taking care of the selectivity and religious orientation of these sources (e.g. Verhoeven, 1984). The latest research in this area relies heavily on the analysis of organic remains, which often helps clarifying the different techniques of product development (Samuel, 2000; Guasch Jané, 2008).

When combined, all these approaches allow, if not a detailed reconstruction of the menu of the Egyptians, at least a reasonable idea of what might have appeared at their tables, keeping in mind the extreme disparity that existed in this area between members of the social elite, who have left us much of the available literature, and the more modest population, who made up the majority of the country.

## Bread, Beer, and Agriculture

The foundation of the Egyptian diet was bread (te), or more precisely the dozens of varieties of bread that were produced in the households of the country, from wheat and barley, the principal grains grown in the Nile Valley. Once again, the scenes depicted in tombs essentially inform us as to the simplest method of manufacture of the product: workers are represented carrying out the steps of processing the grain into flour, screening and refining it; finally, we see them add water to prepare a form of dough, then place it into forms for baking (Wild, 1966). More rarely, steps that seemingly correspond to the addition of yeast or salt to the dough are shown – but the use of leaven seems certain in some cases: in some scenes, it is stated that the dough is ready for cooking because it has received the hez, a term that most probably signifies leaven (Montet, 1925, 239). It is likely that the most commonly prepared bread was a very dense bread, baked for about 40 minutes in embers before being removed from the mold (Lehner, 1997, 236-7). The abundance of these loaf pans, which were made mostly of coarse ceramics intended for single use, on all Egyptian archaeological sites demonstrates the importance of this very compact type of bread in the diet of the Egyptians, especially in humbler circles. However, the observation of many "fossilized" loaves found deposited in tombs as offerings nuances this view quite a bit. Egyptian cuisine in fact allowed for the preparation of bread in all possible shapes: flat, conical, spherical, sometimes molded into shapes of objects or animals, and extremely varied ingredients could be added to the dough for sweetening or aroma: lupine seeds, coriander, a decoction of figs, and poppy or ryegrass seeds (Samuel, 1992). Cooking methods, moreover, varied widely: while most of the scenes show bread baking in molds over an open fire, some representations show direct cooking of cakes, which are simply placed on the conical surface of a furnace, heated from the inside. Finally, archaeological excavations in the artisan village of Deir el-Medina (Thebes, New Kingdom) led to the discovery of a genuine bread oven, barrel shaped, with a diameter of 80 cm and a height of 75 cm, for baking leavened bread on a shelf separated from the ashes of the hearth (Bruyère, 1939, 72-6). This oven model is regularly represented in tombs of the same period, where it is associated with scenes of both bread baking and pastry making.

Note also that the same bread-making process as commonly used for barley and wheat could be adapted to widely divergent ingredients; one could also make bread using, for example, nutsedge (*Cyperus esculentus*) (Tallet, 2003a, 44–7) or jujubes (*Ziziphus spina christi*) (Kamal, 1912). According to Herodotus (2.92), the heart of the white lotus could also be used to manufacture a kind of bread using the same process.

Alongside bread, beer (henget) also played an important role in the Egyptian diet. The stages of its preparation are regularly depicted in reliefs decorating tombs. A certain amount of wheat or barley was first crushed, three-quarters of which were kneaded with water to form a dough, to which the yeast was added. This dough was made into loaves, which were lightly baked, so as not to destroy the enzymes and yeast in the bread. The remaining quarter of the crushed grain was moistened and exposed to air for some time, and then crushed while still wet. Then the real brewing process can be said to have begun: the pieces of bread were fragmented and placed in a container with water, the wet crushed wheat added, and possibly a little of a previous batch of beer to stimulate fermentation, which lasted for one day. Once fermentation was completed, the preparation was passed through a sieve basket, perhaps with a linen cloth acting as a filter, and put into jars. Numerous depictions of the Old Kingdom (c. 2650-2150 BC) and Middle Kingdom (c. 2050–1650 BC) show these two operations, which directly preceded the finished product. We are enabled to easily understand the recipe followed in the making of this popular beer, low in alcohol and high in carbohydrates, since it has in fact never stopped being produced in Egypt and Nubia, where it is still known under the names bouza and merissa (Lucas, 1962, 10-16). Many other types of beer, more luxurious and probably meant to be kept for some time in the cellar, are also known: the most recent analyses of the literature suggest that such varied ingredients as figs, lupine seeds, and honey could be added to flavor it and to raise its sugar and alcohol content. Egyptian elites also seem to have enjoyed wine, whose production on Egyptian soil is recorded from the time of Nagada IIIb (c. 3200 BC), even before the formation of the first Pharaonic dynasty (see below).

Finally, a few words may be said about the other crops of ancient Egypt: what is striking, in fact, is the relatively small number of fruits and vegetables that were grown, compared with what are found today in the country. The fruits that are familiar to us are reduced, in this world, to the triad of dates, raisins, and figs; pomegranates, apples, and olives, on the other hand, seem not to have been acclimated to Egyptian soil until the New Kingdom (Tallet, 2004). On the other hand, it should be noted that many other fruits, whose production has now become anecdotal, were essential in the diet at the time of the Pharaohs: this is the case, notably, with figs sycamore, nuts of the *dôm*-palm, and fruits of the *persea* tree (Baum, 1988). Moreover, many carbohydrate foods were available: chickpeas, lentils, lupins, bamiehs, and beans are clearly documented. Finally, the Egyptians had a wide variety of fresh vegetables: garlic, onions, leeks, celery, cabbage, radishes, lettuce, cucumbers, gourds, melons, and watermelons (Charpentier, 1981; Manniche, 1989).

# Meat, Poultry, and Fish

Meat was a luxury dish in Egypt: it is perhaps for this reason that scenes of slaughter are so often represented on the walls of tombs of high officials. The animals consumed regularly were often wild game: many types of gazelle (oryx, ibex, hartebeest, addax), which have for the most part disappeared from Egypt today, are regularly represented in scenes of funerary offerings alongside smaller animals, such as the hare and the hedgehog (Ikram, 1995, 5–39). Several domestic animals were also raised for meat, first and foremost being cattle, the noble animal *par excellence*: the maintenance of herds was so important to the Egyptian monarchy that, from the most ancient times, the biannual

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census of animals carried out by the administration was the basis for timekeeping. Besides cattle, goats, sheep, and pigs were reared. This last animal is rarely represented in Egyptian iconography (in two millennia of history, fewer than a dozen scenes show them in an agricultural context), but excavations of urban food dumps shows that they were regularly consumed by less privileged social groups. The Egyptians also had at their disposal a wide variety of birds: some, such as the goose, pigeon, duck, and crane, were raised, and sometimes fattened – many other species were captured with hexagonal nets (herons, quail, partridge, and avocets). Finally, fishing in the Nile, practiced in all its forms by teams of specialists using hooks, nets, and traps, produced large quantities of fish such as carp, perch, mullet, oxyrynkhos, synodontis, lepidotes, tilapia, and catfish – more than 20 different species are represented in the Pharaonic reliefs (van Elsbergen, 1997; Ikram, 1995, 34–9).

The problem with the kitchen scenes transmitted by the Egyptian iconographic sources arises from their subjectivity: the most prestigious animals are represented more often, as are the cooking methods that were considered most suitable in the funerary context to which most extant compositions belong (Ikram, 1995, 42-4). Thus, only in the case of the butchering of beef is there enough detail to allow us to understand the sequence of operations for slaughter practiced by the Egyptians: the animal was laid on the ground, had its throat cut, and was emptied of its blood (which was carefully collected in a container), then skinned and gutted. The tripe was also collected and consumed in ways that remain unclear (documents sometimes mention "stirred tripe"). Finally the butchering of the carcass took place, during which most of the cuts of meat were inventoried. Regarding animal preparation, the cooking method most often presented is grilling, perhaps because it is a very fragrant operation and thus particularly suitable for the funeral offering - the main purpose of the tomb scenes that are our principal sources (Verhoeven, 1984). A familiar scene depicts cooks before a small home brazier on which they are cooking joints of meat, poultry, or fish that have been previously stuck on a type of skewer. The fire is fanned at the same time with a small plant fan. In some cases, more complex arrangements may be depicted: in the tomb of Ukhhotep at Meir (Middle Kingdom), a proper rotisserie is shown. The entire carcass of a calf is represented in the process of cooking, while two men, one on each side of the posts of this installation, rotate the spit on which it is placed.

However, it is certain that the Egyptians also cooked by simmering in large pots, which are more rarely, but still regularly, represented. Scenes of this type of cooking are often directly related to scenes of slaughter: the pieces of meat are cut, sometimes beaten to tenderize them, and placed in a container simmering over the fire. In some cases, the cook is shown in the process of stirring the mixture to blend it, and of tasting the preparation. Unfortunately, only the main ingredient is represented in this case: we can distinguish, according to the case, joints of meat, a whole bird, or even fish in the pot, but no information is given as to what embellishments were added. We know, however, that the Egyptians had at their disposal a wide variety of herbs and spices, concerning which they had very specific knowledge - the various medical papyri that have survived, which give recipes for many remedies, also well illustrate the precise usage of these plants (Bardinet, 1995). Dill, parsley, thyme, sesame, cumin, and fenugreek are regularly named in these sources, and would have been in regular use in the kitchen. Other herbs, such as mint, chervil, and oregano, have not been identified in the Egyptian lexicon, but have been discovered in an archaeological context, demonstrating their use in antiquity.

One of the most important objectives of the Pharaonic administration was the long-term storage of the various food products levied each year in rural areas of the country. Without the establishment of these reserves, the mechanism of the state itself could not have functioned. The logical consequence of this was that the ancient Egyptians became masters of many techniques for preserving meat, and scenes of the processing of these foods – operations vital to the country – appear regularly in the iconographic documentation. Archaeological excavations have also yielded numerous indicators suggesting this concern with food-preservation: labeled storage *amphorae* have been found at the sites of the great royal palaces of the New Kingdom, at Malqata in the Theban region, or at Tell el-Amarna in Middle Egypt, containing notably animal fat, preserved birds, and the "battered meat" from the royal butchers.

One way to preserve food was doubtless the production of a kind of confit: many clues, in scenes of food production, indicate the importance attached to animal fat in all its forms. Several tables show us that it was recovered after slaughter of animals, to be stored in containers, sometimes precisely labeled. In addition, the many scenes of forced feeding of animals appearing in the mastabas of the Old Kingdom, relating to birds (cranes, geese, and ducks), but also pigs and even hyenas, could have been intended to facilitate this kind of preparation, which, unlike drying or salting, allows storage of meat while maintaining a high nutritional value. A number of scenes mentioned above, showing cooking in a pot, which are closely associated with butchering of carcasses, might actually depict the cooking of certain pieces of meat in fat, before they are packed in jars (Tallet, 2003a, 61–2).

It is also certain that the Egyptians made use of several drying processes. In the context of skinning the carcasses of cattle, the butchers are regularly represented cutting triangular pieces of meat, which they then hang on a line. These representations show the making of a variety of dried meats, very simple in principle, and making use of precisely the ingredients to which the Egyptians had access. They cut thin strips of meat, which were then covered with a mixture of spices including salt, cumin, coriander, celery, garlic, and cinnamon, before drying them in the sun. A modern reconstruction of this process has shown that meat treated in this way can easily be preserved for one year (Ikram, 1995, 149–54).

A final technique most certainly in use was the preservation of meat and fish using a brine solution containing at least 20% salt. Some scenes of processing of birds could, indeed, clearly refer to this process: the animals are exposed for some time in the sun – to eliminate certain bacteria - then probably placed directly into jars containing brine. According to the testimony of Herodotus (2.77), given at the end of the Pharaonic era, the same treatment was also applied to fish. In the latter case, modern Egyptian cuisine has certainly kept the tradition of antiquity, in the preparation of what is now called fesikh. The fish is washed, scaled, cleaned, and steeped in salt, and then placed at the bottom of a pottery vessel, which is gradually filled. Between each layer of fish is sandwiched a layer of salt, and weights are placed on the entire contents of the jar, which, by their pressure, allow the salt to penetrate the fish tissues. Ten days are enough to obtain the final product – still popular today in Egypt (Wissa-Wassef, 1971). In the same vein, the Egyptians were probably the first to have produced the botargo: this preparation, which is known throughout the Mediterranean world, uses the eggs of grey mullet (Mugil cephalus), a fish that seems to have been particularly popular in ancient Egypt. The pockets of orange eggs found in female mullets are extracted, cleaned, and placed in salt. They are then pressed between planks, before drying them on wire mesh racks. Virtually every 324 Pierre Tallet

stage of the development of this product is represented on the walls of decorated tombs of the Old and Middle Kingdoms, with particular emphasis on the extraction of the ovaries of the fish, which are represented in the form of rods lying beside the gutted fish (Keimer, 1939; Vandier, 1964).

All available sources for Egyptian cuisine thus point to the existence of a world to which we have very limited access, where one glimpses the complexity both of certain food preparations and of the codification of table manners, of which certain texts that have survived from the wisdom literature – such as the teachings of Ptahhotep or of Kagemni – in turn give us an overview. Only multidisciplinary research, combining the analysis of organic remains found in tombs and spoil heaps with lexicographical studies, analysis of paintings and reliefs, and anthropological observation, will allow us to know a little more about the food of the ancient Egyptians in the long term, which had only a few points in common with that which we can experience today in the Nile Valley.

## A Product Apart: the Wine of the Egyptians

Pharaonic Egypt was predominantly a beer-drinking land – and it is true that the climate of the country, where the vine is not native, is not *a priori* the most suitable for the production of this drink (Baum, 1988, 135–48). Yet paradoxically it is Egypt that gives us one of the oldest documentations of viticulture, the impressions of seals found on jar-stoppers from the earliest dynasties, and multiple figurative scenes from the great mastabas of the Old Kingdom, where are recorded, in a somewhat stereotypical fashion, the main steps of wine making: scenes of harvest, pressing, and bottling in jars (James, 1996). Recent archaeological discoveries now suggest that the vine had been grown in Egypt since the pre-dynastic period (Naqada IIIb), to produce a beverage reserved for the social elite, by the princes prior to the political unification of the country (Hendrickx & Bavay, 2002, 72–6).

It is certainly with the New Kingdom that we have the most detailed information about this drink: at that time, indeed, the Pharaonic administration had progressively developed the custom of labeling storage jars containing a wide variety of food with a small inscription in hieratic, attached to the upper surface of the jar, and providing information as to its contents (Tallet, 2003b). Wine jars are thus accompanied by a very detailed manifest, indicating the production year of the jar, the wine's quality, the name of its institutional recipient, the growing region, and the winemaker responsible. Taken together, these data allow us to draw a map of the vineyards of this period – clearly located mainly in the Nile delta – and better to understand the conditions of its production: the descriptions available to us carefully distinguish between different qualities of wine: good wine (*irep nefer*), doubly good wine (*irep nefer nefer*), and sweet wine (*irep nedjem*).

Among the varieties of wine regularly mentioned a mysterious product called *shedeh* figures: it is clearly, in the minds of the Egyptians themselves, a highly alcoholic liquor, of superior quality, the liqueur-like character of which is regularly extolled. Several hypotheses have been made as to its identity: pomegranate wine (one of the references to this product effectively associates it with a delivery of pomegranates and raisins – which is not in itself a very convincing statement), honeyed wine, mead, or mulled wine. Analyses of organic remains found in *shedeh* jars have recently proved incontrovertibly that this was a wine with a red color (Guasch Jané, 2008, 29–32, 52–3, 62), while all available

sources point towards the latter interpretation of the word. Indeed, several later texts refer explicitly to the cooking of at least one part of this preparation: it is possible that the Egyptians obtained in this way a concentrated grape juice comparable to the well-known *defrutum* of the Roman world, which could then be used to sweeten the wine and increase its alcohol content (Tallet, 1995, 2010). More generally, by analyzing all of these sources one gets the sense, without being able to prove it, that many techniques of wine manufacture that are well attested in the Roman period had in part already been tried in this period.

#### NOTE

<sup>1</sup>Translated by Nicholas Banner.

#### **FURTHER READING**

Of a number of recent books of general interest on food in ancient Egypt, mention may especially be made of the large two-volume work of Darby, Ghalioungui, & Grivetti, published in 1977, which however can be criticized for its lack of historical perspective, the authors' approach to all sources, Pharaonic as well as Greco-Roman, lacking in differentiation. Many other general works, some quite brief, have appeared in recent years, among which may be mentioned, among others, those by Bresciani (1997), Wilson (1988), Tallet (2003a), and Peters-Destéract (2005). Several monographs have also been published, dealing with more specific domains of Egyptian cuisine: the study of Ikram (1995) may be cited as a good example, as well as the work of Guasch Jané on wine (2008). The innovative research of D. Samuel, notably on Egyptian beer, are also worthy of mention (e.g. Samuel, 2000). The volume in which this last work appears contains several other very useful papers on specific aspects of food production, notably by M.A. Murray: "Cereal production and processing" (Murray, 2000a), "Viticulture and wine production" (Murray, Boulton, & Heron, 2000), and "Fruit, vegetables, pulses and condiments" (Murray, 2000b), accompanied in each case by an abundant bibliography.