

Honey bees reverence in Ancient Egypt

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Abstract:

" بسم الله الرحمن الرحيم . و أوحى ربك إلى النحل أن اتخذى من الجبال بيوتا
و من الشجر و مما يعرشون ثم كلى من كل الثمرات فاسلكى سبل ربك ذللا يخرج من
بطونها شراب مختلف ألوانه فيه شفاء للناس إن فى ذلك لآية لقوم يتفكرون . صدق الله
العظيم . " (سورة النحل : 68 – 69)

“And your Lord inspired the bees, saying : ‘Take your habitations in the mountains and in the trees and in what they erect. Then, eat of all fruits, and follow the ways of your Lord made easy (for you)’. There comes forth from their bellies, a drink of varying color wherein is healing for men. Verily, in this is indeed a sign for people who think”.

The Ancient Egyptian had a deep knowledge and appreciation for the bee, considering that it is the source of honey used as a medicine and as an agent among the mummification materials. He considered the bee as using everything that grows on earth in order to produce the beneficent honey, as stated in a text inscribed in the temple of Edfu Mammisi : ‘Everything that grows on the back of Geb is for your Ka; the bee uses them to make white honey for you’. (Derchain, P., *Le Papyrus Salt 825 (BM 10051), rituel pour la conservation de la vie en Egypte, Memoires de l’Academie Royale de Belgique ; LVIII, fascicule 1a, Bruxelles, 1965, p. 149 ; Chassinat, E., Le mammisi d’Edfou, Mémoires publiés par les membres de l’Institut Français d’archéologie orientale du Caire, t.16, Le Caire, 1939, p. 164).*

The words and expressions that the Ancient Egyptian used to refer or to describe the bees indicate that he knew a lot about the behavior and attitude of the bees whether inside the hive or outside it. Maybe also he revered the bees for all the marvelous aspects revealed in their organized life filled with all its building and productive activities.

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1. The worship of bees as represented in a scene of the tomb of Pabasai :

In the court of offerings of the tomb of the Hereditary Prince Pabasai (𓂏𓂏𓂏 pA bA sAi)² ‘The Ba is satiated’, we can see a scene representing a man kneeling in front of two organized rows of bees. This man could be a priest³ and the scene could be a worshipping scene. The gesture of the raised arms is, in fact, the determinative of the word *𓂏𓂏 dwA ‘to adore’⁴. This symbol also refers to the words : ‘praise’, ‘extol’ and ‘show respect’⁵; which could all designate the kind relation between the Ancient Egyptian and the bees.

Other opinions have been proposed explaining the gesture this man is performing. According to Manzano the gesture would be a way through which the beekeeper (who could also be a priest) obtained profit from the bees (their honey and wax) while, at the same time, he tried to attenuate the potential harm that the bees could cause him. Manzano also asks the question : Could this gesture of adoration be explained as an expiatory practice made after the hives have been emptied by the beekeeper ?⁶ According to the researcher, the organized rows in which the bees are represented reflect their peaceful attitude towards the presence of the beekeeper (and/or priest). They are not seemingly in a state of defense against him, on the contrary, they look in perfect harmony and acceptance. In fact Ancient Egyptians cared to not inflict any harm to the bees. And rather than kill them to take honey, the Ancient Egyptians removed the bees by smoke or other means thereby allowing for obtaining honey without inducing any harm to the hive⁷.

2. Using smoke to calm the bees and as an offering to them:

A scene in the tomb of the vizier Rekhmira (𓂏𓂏 rx mi Ra) ‘Wise like Ra’⁸, represents a beekeeper calming the bees with smoke. This is done by using a lamp bowl with a triple wick⁹. This lamp bowl 𓂏 is an incense bowl in fact. The symbol 𓂏 consisting of a bowl from which smoke rises is used as a determinative for the word 𓂏 sntr ‘incense’¹⁰. Redford says that smoke induces bees to fill their stomachs with honey and become less aggressive¹¹. Kritsky sees that smoke could have been used either to quiet the bees or as an offering to them¹². We can consider both roles as right; smoke calms the bees and is an incense offering at the same time.

The tomb of Amonhotep (?)¹³, includes a significant beekeeping scene on the sub-register of the North-East wall. The scene represents two bee-keepers smoking stacked (متراكم) hives. This scene is possibly the oldest depiction of using a censer as an offering of incense to the bees¹⁴.

In modern times smoking is among beekeeping techniques. When the smoke arises from the fumigator (مدخان) and infiltrates inside the hive, the attendant bees (النحل الشغالات) feel that smoke and

start to fill their craw (حوصلة) with the necessary quantity of honey that suffice them a long time in case they have to make a long trip. The smoke probably gives the bees the impression that their hive is burning or that an intruder is attacking it. In that case they store a great quantity of honey in their craw which makes them heavy, slow their movement and make them less aggressive and less inclined to sting¹⁵.

Thus the Ancient Egyptian knew the right methods for quieting the bees in order to be able to approach them without causing harm or disturbance among them. And at the same time express his reverence and gratitude towards the bees through aromatic incense smoke.

3. Swarming practiced by the Ancient Egyptian:

Swarming (التطريد / الإنثيال) is a natural process in bees that aims to naturally multiply. The queen bee leaves the hive with a great number of attendant bees (النحل الشغالات) to create a new colony (طائفة نحل) after making sure that a new queen bee will replace the old one in the old hive. These bees, with their queen are called 'swarm' (طرد ، ثول). They first go to a close tree and get attached to one of its branches until finding a new shelter. The bees incline to swarm when the colony becomes crowded. In natural swarming, when the weather becomes warm, some scout bees (نحل كشاف) searches for an appropriate place like a tree branch or a fence to hang to. Then the queen bee gets out of the old hive, followed by a great number of bees, among which are old aged bees, and they reach the place chosen by the scout bees. As soon as the queen bee stops, all the bees gather around it and attach to each other by their legs. Some of the bees keep swirling (بحوم) to guide the late bees¹⁶.

In the tomb of Ankh-hor (𓆎𓅓) 'Horus lives', Steward of the Divine Votress Nitocris¹⁷, a relief includes a man facing a large tree, of which just the crown and upper branches are preserved. To the left of the tree are parts of two bees. The man raises his right arm, his palm facing upward¹⁸. This is a posture of invocation. It is the determinative of the word 𓆎𓅓 nis 'call, summon'¹⁹. This man is likely calling the bees to the tree to make an artificial swarm. He could also be calling the bees to fill themselves with nectar in order to produce honey, as Kritsky interprets it.

The researcher suggests that this scene represents rather an artificial swarm because of the gesture of the man raising his arm, and because drinking nectar is a natural instinct in the bees which doesn't need encouragement from the side of the beekeeper.

The scene represented in the tomb of Pabasai could also, besides representing adoration of the bees, represent bees swarming around their tubular hives. In fact, we can see numerous bees represented in an organized way. Wilkinson says about this scene : ' Although the representation may seem rather mechanical by modern standards, an effective image of the swarm is nevertheless

achieved'²⁰. According to the researcher, this 'organized way' through which the bees are represented may refer to the state of calmness and safety the bees feel towards the presence of the beekeeper (and/or priest) next to them.

4. The call 'nft' for the bees:

A bas-relief in the Chamber of Seasons of the Sixth's Dynasty king Niuserra's solar temple²¹ shows a man kneeling in front of a pile of cylindrical vessels and holding one to his mouth. Above the man we find the word :  nft²². The word  nft means : 'breath, wind'²³. The word  nft also means : 'loose يفل , يحل , ' , 'slacken يضعف , يرخى'²⁴.

Kuény wanders if that is the call of the queen-bee that this kneeling beekeeper is imitating. The verb 'nft' according to Kuény would also mean 'emitting a sound'²⁵. Kritsky says interpreting this scene : 'Maybe the beekeeper was not smoking the bees but rather managing swarming by inducing the queen and workers to enter the jug as he called the queen'. He continues : 'This conclusion could be supported by careful examination of the beekeeper's right hand, holding the end of the oval container, perhaps trapping the artificial swarm inside'. He then describes how the beekeepers nowadays call the queen bee : 'In calling the queen the beekeeper mimics (يحاكي) her audible (مسموع) communication, which is called 'piping' (صوت حاد). She makes the sound by pushing her thorax against the comb and vibrating the wing muscles without moving her wings'²⁶.

5. The temple of the bee:

There were two temples called :  Hwt – bit 'Temple of the bee'. The first one was situated in Saïs (صا الحجر), 5th nome of Lower Egypt, along the external wall of Neith's temple, near the sacred lake. There is nothing left from this temple²⁷. There was another  Hwt – bit in the nome of Letopolis (modern Ossim اوسيم), 2nd nome of Lower Egypt where Hathor was worshipped. We can say that the 'Temple of the bee' of Letopolis borrowed its name from the one of Saïs which was more ancient²⁸. According to Wilson, the term (Hwt – bit) is first attested in the Saïte period (24th and 26th Dynastie)²⁹.

The question is : Was the bee which has given its name to the temple (Hwt – bit) venerated there ? An inscription found on the statue of Ouah-ib-Ra ()³⁰ 'Endures the heart of Ra', who was a high official under the 26th Dynasty, seems to assert this cult. The offering formula on this statue comprises the following words :



Htp di nsw di bit imy Hwt

'An offering given by the king, given by the bee that is in the temple'.³¹

Many offering prayers mention Osiris as the ‘Foremost (at the head of) the Temple of the bee’.



Htp di nsw Wsir nTr aA xnty Hwt – bit

‘An offering that the king gives (to) Osiris the Great God, the Foremost of the Temple of the bee’³².

It is evident that there were cultic secrets in the (Hwt –bit) as Osiris held that title :



Hry sStA m Hwt-bit

‘Master of secrets in the Temple of the bee’³³.

Osiris lived inside the (Hwt – bit) of Saïs and was called there :  HmAg³⁴ . According to Gauthier  refers to a sanctuary of Osiris at Saïs called (HmAg) but which can’t be located because of the ruined state of the ancient city Saïs³⁵ . Among the titles of Osiris was : ‘Osiris who is in Hemag’³⁶ . Chassinat sees that the ‘Hemag’ is the name of the mummy bandages of Osiris or of the mummy itself³⁷ . He says that Osiris was called (HmAg) because he inhabited the place having itself the name (HmAg) which meant ‘Hall of Wrapping’ (Salle de l’emmaillotement)³⁸ . Wilson says that the  HmAg was a temporary embalming booth. At Dendara there is a room called ‘Hemag’ and at Edfu the word is determined by  which can represent a chamber and also a temporary booth that was originally erected near the tomb, where the body could be embalmed before moving the short distance to the tomb for burial. The word may be connected with the verb  which seems to mean protect³⁹ .

Among the epithets of Osiris was the name (bity) . Osiris was qualified as : (bity imy Hwt-Nt) (The King of Lower Egypt who is in the palace of Neith)⁴⁰ . Here the word (bity) is translated as (King of Lower Egypt). The researcher suggests that the translation could also be : (He of the bee) as an independent meaning unaffiliated to the king.

Maybe the Ancient Egyptian knew that when intruders try to get into the hive, the bees kill them and carry them out. In case these intruders are big animals (lizards or mice) which the bees couldn’t pull out of the hive entrance, in that case, the bees embalm these animals to mitigate putrefaction within the hive and make these animals odorless and harmless⁴¹ . For that, the bees use their propolis (العكبر) which is a natural antiseptic that protects the hive from microbes. Propolis (bee glue) is a resinous mixture that bees produce by mixing saliva and bees wax with exudates gathered from tree buds, sap flows, and different botanical sources.

Therefore, it is maybe possible, to establish a connection between the epithets of Osiris : (HmAg) : ('mummy bandages' or 'mummy' or 'Hall of Wrapping') and (bity) : (The one who belongs to the bee) and the function of the bees in protecting the hive and keeping it clean and healthy through mummifying the intruders with bees propolis.

6. Nut restoring the king to life in her appearance as a bee:

The bee was associated to the goddess Nut in the Pyramid Texts where Nut appears as a bee which causes the king to be restored to life and be able to live.



Dd mdw Nt xa.n.T m bit n sxmt m nTrw



kAw.sn isT iwat.sn isT DfAw.sn



isT iSt.sn nbt isT



Nt didi.T sDb.f anx.f Nt anx.T anx Ppi

'Words to be recited, O Nut, you have appeared as a bee; you have power over the gods, their doubles, their heritages, their provisions, and all their possessions. O Nut, cause the king to be restored to life that he may live, may you live Nut, may Pepi lives'⁴².

In this text it is possible to see a reference to the life-supporting role of the bee. Bees are perfectly adapted to pollinate, helping plants grow, breed and produce food. They do so by transferring pollen grains between flowering plants and so keep the cycle of life turning. On the other hand, bees produce honey which served as an offering to the gods. It was employed as a sweetener, utilized in baked goods, and used to prime beer and wine. It was a component of some perfumes. Of the approximately nine hundred cures mentioned in medical papyri, about five hundred involve the use of honey (which has natural anti-bacterial properties)⁴³. Bees produce beeswax too. Beeswax was employed in mummification for covering the ears, eyes, nose, mouth and embalming incision⁴⁴.

7. The round paths of the bee :

A passage occurring in the Book of Opening the Mouth inscribed in the tomb of Rekhmira, points to the round paths through which the bee flies.



qd bit mAA.n.k qd nb n it.k

‘Going round about [as] a bee (or hornet) you saw all the goings round about of your father’⁴⁵.

Goyon has translated the word 𓂏𓂏 qd as ‘form’, recognizing at the same time that the meaning of the text is purposely concealed, having been difficult to understand for the ancient scribes themselves. He says in this matter : (Passage ésotérique *خفى* à souhait qui a embarrassé même les copistes anciens). His translation of the text after the version mentioned by Schiaparelli is : ‘J’ai vu mon père en chacune de ses formes’ (I saw my father in all his forms)⁴⁶. In fact the word 𓂏𓂏 qd has both meanings : ‘form’ and ‘go round’⁴⁷.

The Ancient Egyptian probably knew that bees communicate through different kind of dances. When the scout attendant bees (*النحل الكشافة*) return to the hive with news about the presence of nectar or pollen grains or water, they perform specific dances above the honey combs. According to the kind of dance, the information given by the scout bees to their fellows vary. This way the scout bees give very detailed and precise information concerning the location and the kind of food they found. There are two common types of bees dances : The circular dance (*الرقصة الدائرية*) and the vibratory dance (*الرقصة الإهتزازية*). The circular dance gives information about the source of food which is close to the hive (between 10-80 yards, the yard measures 91,44 cms). While the vibratory dance is performed to determine the food location that is further away from the hive.

The vibratory dance comprises side vibratory movements of the belly while making the form of the number ‘8’ in English. The strength of the vibrations, their number and the direction of the dance as well as the sound which the bee produces, all are agents allowing the bee to share exact information about the place of the food⁴⁸.

8. The functions of the bee represented in the names given to her by the Ancient Egyptian:

The Ancient Egyptian had carefully contemplated the behavior of bees. The different names he chose to give them show a deep understanding and appreciation of this behavior, its purpose and its benefits.

a) 𓂏 kAt :

The Ancient Egyptian gave the bee the name (kAt) which means ‘work’, ‘construction’, ‘craft’ and ‘profession’⁴⁹. Brugsch mentions this word and translates it as follows :

 kAtt

 kAtt

 kAt

‘arbeiten, die arbeit, den arbeiter’. He gives the French translation too : ‘travailler, le travail, l’oeuvre, l’ouvrier’⁵⁰.

In the following texts, the word ‘work’ is represented by the symbol of the bee :



m inr wD nfr rwDt m kAt mnxt nHH

‘...in a beautiful stela of sandstone of excellent work (enduring) eternally’.



smtr iAt nbt m kAt.sn Sm.sn Hr mw wD.f n.sn irw-xt xft mdw.f

‘...every official investigates in their work, they go on water (as) he commands to them. The administrators are in accordance with his words’⁵¹.



r sDd kA.sn Hr kAt.sn

‘...in order to establish their names on their work’.



m kAt nt iswt

‘...as the work of ancient days’⁵².

Besides being a hard worker, the bee is a great builder. In fact the word (kAt) is also written this way :  with the determinative of the man steadying a basket on his head⁵³. Until nowadays that basket is characteristic to the builders. So we can admit that the Ancient Egyptian, when designating the bee with the word (kAt) meant to signal her building capacities and aptitudes. Worker honey bees make hives to store honey and feed themselves throughout winter when they cannot go outdoors to forage for food.

They build the hive using :

- 1- bees wax
- 2- propolis (bees glue عكبر).

Bees consume honey, and as they digest it, the honey is converted into wax through a set of eight glands on the bee's abdomen. The wax oozes through the bees small pores to produce tiny flakes of wax on their abdomens. Worker bees chew these pieces of wax until they become soft and moldable, and then they bond these bits together to form the cells. The cells are used to store nectar, pollen, water, honey, eggs and larvae (اليرقات). As for propolis, the bees prepare it from resins. Resins are secreted by plants when they have been damaged, to close wounds in their surfaces. Bees make separate trips for collecting plant resins. The bees pick up the resins by using their forelegs and mandibles. Then, they place it in the pollen sac on their hind legs. When they get back to the hive, other bees pull the sticky substance off their legs for them. Then, the plant resin gets mixed with saliva and wax which is secreted by the worker bees. They mix these substances by chewing them, resulting in raw propolis.

To build the hive, worker bees prepare the space by covering its wall with a thin layer of propolis. Bees use propolis also to patch up holes and cracks in the hive to keep heat from escaping and strengthen the hive structure. Propolis is used at the entrance to the hives to keep bees from bringing in harmful microbes by disinfecting the base of their legs, and also to better protect the hive from invasion. As mentioned before, propolis is used for embalming parasites and invaders. Small predators that bees find too difficult to remove from the hive are covered with propolis after being killed by stinging. This prevents decomposition, which is a health risk to the entire colony.

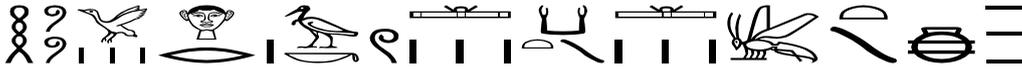
Why do bees use the hexagon shape (التسديس) for building their cells ?

Mathematically, a circle shape would make it possible to store the most volume of honey, but the curved shape allows for gaps when the cylinders are placed next to each other. This would result in wasted space and extra wax production, in respect to honeycomb building. The hexagon is the perfect solution to this problem. It is the most circle-like shape and allows for other cells to be placed next to each other without wasting space⁵⁴.

b) 𐤇𐤍𐤁𐤃 Hww :

The word (Hww) is a rare designation of bees. Bardinnet says about it : 'Le mot (Hww) qui les (les abeilles) désigne ici de façon originale est un hapax (صيغة نادرة)'. He refers here to a text in Leyden papyrus. The root of the word (Hww) is (Hwi) which means : 'to beat'. Bardinnet specifies that the beating meant is the beating or flapping of wings. He says : 'frapper, battre (des ailes)'⁵⁵. Meeks also explains the word (Hww) as 'The flapping of wings' : 'le battement (des ailes)'⁵⁶.

In papyrus I350 of Leiden we read the following text where the word (Hww) designating bees occurs :



Hww Hr bAk kAt bit

‘Bees (?) prepare the produce of honey’⁵⁷.

It is noticed that Gardiner follows the translation ‘bees’ by an interrogation mark. According to Osing, the word (Hwi) means ‘to beat’ : ‘schlagen’⁵⁸. The sign  represents the root (Hwi). According to Lacau it represents in a precise and technical way one of the moments of grabbing (اقتلاع). He says : ‘Il s’agirait de l’image précise et technique d’un des moments de l’arrachage’⁵⁹. The sign  consists of a man striking with stick. It is the determinative of  (Hwi , Hii), meaning ‘strike’, ‘force’, ‘effort’⁶⁰. Faulkner gives us many meanings for the word  Hwi : ‘beat, strike, smite, defeat in argument, drive off, drive in, flap wings, gather crops, thresh corn, throw against wall, tread road, roam the earth, (Hw sDb) implant an obstacle’⁶¹.

In fact , bees perform activities including striking and driving off intruders that approach the hive. They gather plants nectar and roam distant places in order to find suitable plants containing that appropriate nectar.

The expression  Hwi sDb is an ‘interesting one’ according to Gunn. He says : “ (sDb) appears to mean ‘obstacle, impediment’ and the sign  may well be , a forked stick for catching snakes, a typical ‘impediment’⁶². As for Gardiner, he explains this sign as a ‘pitchfork’ and gives it the meaning of : ‘hindrance, obstacle’⁶³. As has been mentioned, one of the main duties of the worker bees is to ensure the safety of the hive by using propolis at the entrance of the hive to protect it from any invasion. They also patch up all cracks in the hive, by using propolis, to keep its structure strong and firm⁶⁴.

As for the meaning ‘flapping of wings’ that Bardinet and Meeks confer to the word  (Hwi), the worker bees not only flap their wings in flying, they also condition the air inside the hive using their wings. In hot summer days we can see rows of worker bees standing at the entrance of the hive, taking all the same direction and moving their wings strongly. The work of these bees is to enter strong cold air currents into the hive. On the other hand, there are other groups of attendant bees inside the hive engaged in driving out the hot air off the hive. When the weather is cold, the bees gather above the honey combs to limit the surface of the combs exposed to the air, and they increase metabolism (التمثيل الغذائي) in their bodies which results in the raise of the hive’s temperature and guarantees the conservation of honey from spoilage⁶⁵.

c) xb :

According to De Meulenaere, the reading (xb) of the bee seems to be applied to only the name of the city of Chemmis : xb^{66} . In *Wb* too, xb is explained as the name of the city of Chemmis (name der Stadt Chemmis)⁶⁷. Chemmis was also called : Ax-bit , which Helck explains as ‘the thicket of the bee (or of the king of Lower Egypt)’ ; (‘Le fourré de l’abeille (ou du roi de Basse Égypte)’)⁶⁸. Gauthier says, describing the same locality, that it is a mythological locality of the Delta, situated in the swamps region connected to Isis and the childhood of Horus; it seems to have been identified with the later city of Khebt , in the neighborhood of Bouto⁶⁹.

Mallet mentions the name Ht-xbt and says about it that it was a temple dedicated to Osiris, where a member of the body of Osiris characterized by a non identified sign was conserved⁷⁰.

The word (xb) has several meanings, among which : xbi ‘deduct, subtract, reduce, lessen’⁷¹ ; xbt ‘place of execution’⁷² ; xbA ‘destroy, lay waste, ravage’⁷³ ; xbyt ‘carnage’⁷⁴. All these meanings are closely related to bees when considering the way they defend their hive against intruders. In fact when an enemy approaches the hive, the defender bees (النحل الحارس) which stand at the entrance of the hive raise their bellies upward showing their sting (آلة اللسع) and release alarm pheromones that alert the rest of the bees for the close danger. These alerting pheromones are emitted too from the sting that the worker bee leaves in the body of the intruder victim, which guides the rest of the bees to the place of the enemy. The principal pheromone responsible for alerting to dangers is : **Iso – pentyl acetate**. This pheromone is produced from the glands called **Koschevnikov** situated near the sting shaft. When the worker bee stings she dies after stinging because her sting remains in the body of the enemy and the bee cannot pull it back as it is provided with a group of inversed sharp teeth (أسنان مسننة تسنينا عكسيا)⁷⁵.

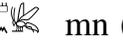
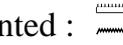
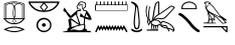
Among the meanings of the word (xb): xbi ⁷⁶, xbt , xbb ‘dance’ ; xbw ‘dancers’⁷⁷. As a matter of fact, bees in a colony work with each other to gather food. They try to find the most pollen and nectar in the least amount of time possible. When a good flower patch is found, bees recruit other bees from their colony to the patch. Bees communicate the flowers location using special dances inside the hive as mentioned before. One bee dances, while other bees watch to learn the directions to the flower patch. The dancing bee smells like the flower patch, and also gives the watching bees a taste of the nectar she gathered. Smell and taste help other bees find the correct flower patch.

Bees use two different kinds of dances to communicate information : the waggle (vibratory) dance and the circle dance⁷⁸. The dance language is also used to recruit scout bees to a new nest site

during the process of swarming. Recruits follow the dancing bee to obtain the information it conveys, and then exit the hive to the location of interest⁷⁹.

9. The goddess of the throne ‘Men-bit’:

It is possible that the Ancient Egyptian knew that the beehive had a strict order at the head of which was the ‘queen bee’. In fact there was an Ancient Egyptian deity whose name combined both the throne or royal couch and the bee. This deity was ‘Men-bit’, and her name was written in different ways, all closely related to the roles the queen bee assumes in the beehive.

The goddess ‘Men-bit’ was the personified female deity of the throne or royal couch⁸⁰. Her name was written as follows :  ,  ,  ,  mn (t) – bit (y)⁸¹. The name of this deity always assumed the phonetic value of the bee even when the bee was not represented : ⁸². Depictions of ‘Men-bit’ show her as a standing female deity with the head of a lioness wearing the red crown of Lower Egypt⁸³. *Wb* explains the expression :  mn-bit as ‘throne or bed of the god and kings’(Thron oder Ruhebett der götter und des königs). He says that  mn-bit is a ‘personification of a goddess’ (personifiziert als göttin)⁸⁴. Manzano translates  mn-bit as ‘Royal bed’⁸⁵. Birch says that the bee or wasp, is found at a later period as a determinative in the word :  mnt ‘bier’ or ‘couch’ or ‘habitation’⁸⁶. Gardiner translates the expression :  Xry-Hb (t) mn (t)-bit as ‘lector-priest of the royal couch’⁸⁷. *Wb* translates  mn-bit as : a ‘high priestly title’ (Als hoher Priestertitel)⁸⁸.

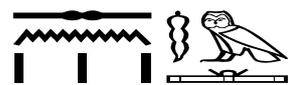
In a text in the tomb of Kheru-ef ( Xrw.f) ‘His subjects’, who was a hereditary prince and governor under the reign of Amenophis III, ninth king of the Eighteenth Dynasty, we find the following expression :  TnTAt mnt . The text where this expression occurs contains many lacunae and is difficult to translate :



M hii Htp Hr TnTAt mnt



Arqt qA (i) mAat



sn nDm⁸⁹

‘...in jubilation... Horus (the god) is satisfied (upon) the baldachin Menet-bit, being high knowing ...one True of voice (?) ...the god ... are sweet’.

Among the ways the word (mn-bit) is written, we can find the following :  and .

There is a possibility that the Ancient Egyptian referred by the goddess of the royal couch or throne ‘Men-bit’ to the queen bee which he venerated. In fact the way the word (mn-bit) is written combines both the couch and the bee as well as in many cases the symbol ( mn) which consists of a draught board⁹⁰ and has among its meanings : ‘be firm’, ‘remain’, ‘be established’⁹¹. All these meanings reflect the status of the queen bee within the hive. The word (mn-bit) also includes sometimes the symbol of the pestle (مدقة) and the mortar (هاون) :  which means ‘establish’⁹²:  ⁹³. When we consider the role of the queen bee in the hive we find that the queen bee is the mother of all the bees in the colony as she is responsible of laying the eggs that develop into adult bees. In fact, the queen bee is the only bee who can lay fertilized eggs as the worker bees have undeveloped reproductive organs⁹⁴. This meaning could be referred to in the words :  and  mn(t) – bit (y)⁹⁵ which contain the determinative of the egg (swHt) expressing filiation⁹⁶.

When we consider the words :  and  where a bee is represented above the royal couch, as well as the words :  and  ⁹⁷ were the name of the goddess ‘Men-bit’ includes the sign  (pr) meaning ‘house’⁹⁸, we may understand a reference to the special compartments the worker bees build inside the hive for the queen bee to live in. These compartments are called ‘Houses of the queen bees’. They measure about one inch in length and have a base bigger than the top. Their sides are thick having a granulated coarse touch. The appearance of the royal house is like that of a peanut⁹⁹. Worker bees give great attention to the royal house. They refine its interior sides and provide it with the necessary quantities of royal jelly in order to draw the attention of the queen bee so that she would lay her eggs in it¹⁰⁰. After the queen bee leaves the royal house, the worker bees demolish it partly, always caring to keep its foundation in the shape of a big cup cavity¹⁰¹.

Besides being a mother of all the members of the hive, the queen bee promotes stability in the hive through the pheromones she produces and which serve as chemical messengers. Strong pheromones ensure the bee colony that all is well. Bees use pheromones in almost all aspects of their life. This includes reproduction, development of brood, swarming, foraging, defense and more¹⁰².

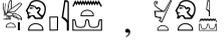
The term  bityt ‘Queen’ was among the titles of goddesses Hathor, Isis and Buto¹⁰³ (Wadjet). This title could well designate the queen bee as it includes a bee at its beginning, followed by the sign of a vultress which means ‘mother’ and followed by the sign of an egg which is a reference to filiation.

The term  biti bitiw has been explained by *Wb* as : ‘King of kings’ (König der Könige). He adds that it was a title of gods Osiris, Horus and Montu¹⁰⁴. We could wonder if this title wouldn’t simply also mean : ‘bee of the bees’, which again would be a direct allusion to the importance of the queen bee and the great role she assumes in keeping the hive stable and coherent.

10. The bee deities in the Book Imy-Duat:

In the Book Imy-Duat, we find deities directly connected to the bee and who have a guiding and protective role in the other world. Among these deities : Bitet-tepet-inet and the four gods Bityw.

a) Bitet-tepet-inet:

 bit (t) tpt int ‘The first red crown of the valley’ or ‘The first bee of the valley’. This deity appears in the second division of the Book Imy-Duat¹⁰⁵. It is said about this deity and the deities who accompany her :



in xrw.sn sSm sw r.sn



irt.sn pw sxpr inw Saw grHw



irt xri r wnwt.sn sAw hrw

‘Behold, it is their voices which lead him (this great god) to them. Their work consists in causing to come into being the offerings of the night, and in performing the overthrow (of enemies) at their hour. It is they who guard the day’¹⁰⁶.

b) The four gods Bityw:

 Bityw ‘Kings of Lower Egypt’¹⁰⁷. These four gods appear in the form of four mummies in the sixth hour of the book Imy-Duat. They are commanded by Ra to slay the serpent Apophis¹⁰⁸.



Sat app nswiw Htptyw bityw Axw imyw tA

‘Hack in pieces the serpent Apep, O you kings of the South, you Heteptyw, you kings of the North and you spirits who dwell in (this) land’¹⁰⁹.

The Ancient Egyptian has given the gods Bitet-tepet-inet and Bityw a guiding and protective role. These two roles reflect his understanding of the nature of the bee who has both a guiding role and a protective role.

In fact the scout bee (النحلة الكشافة) cares to remember the details of her exploration trip in search for nectar and pollen grains. When she leaves the hive she turns to it and stops and hovers in front of it for a while observing it attentively to imprint it in her memory. Then she flies around it in circles that keep widening gradually. When she returns back to the hive she informs her fellows about the food location so they could proceed successively to the flowers¹¹⁰. When the swarm season arrives, the scout bee begins to canvas the nearby areas looking for an appropriate new nest. The scout bee flies around tree trunks investigating any knot holes or openings. Scout bees are attracted to the smell of old honeycomb. This results in a good nest being used over and over again as the years go by. A typical swarm of about ten thousand honey bees will usually contain four hundred to five hundred scout bees. The swarm leaves the parent hive and hangs in a cluster nearby. During this transition time, scout bees work to finalize a home choice. Scout bees dance on the surface of the cluster of hanging bees. Small groups of bees are recruited to visit the best new locations. If they like the new site, they will return to the swarm cluster and dance in favor of choosing it. Over time, more and more scout bees dances will match. The swarm comes to an agreement on where to go. This scouting behavior of the honey bee swarm can continue for hours. Bees fly back and forth between the hanging cluster and the best site choices. Researchers do not understand exactly how the bees reach an agreement. But eventually, most of the scouts will be dancing for the same site¹¹¹.

As for their protective and guarding role, the guarding bees stand on their hind legs lifting the front legs up, and through their antennae (قرون الإستشعار) they check the arriving bees and are completely ready to defend their hive in case of any attack. If the guarding bees are unable to repel the enemy then great numbers of bees come to defend the hive¹¹².

Some bees drink during their trips intoxicant substances such as ethanol which results from the fermentation of ripen fruits. The bee after drinking these substances becomes drunk. These drunken bees become aggressive and could damage the honey stored in the hive by emptying the intoxicant substances in the honey. The guarding bees are provided with a kind of alarm devise through which they could smell the drunken bees, fight them and drive them out of the hive. The drunken bee is not allowed to return to the hive until it recovers and all toxicant effect is off¹¹³. The bees responsible of guarding and defending the hive are called 'bee bouncers'¹¹⁴.

Conclusion

1. The Ancient Egyptian had deep reverence towards the bees as seen in the tomb of Pabasai, showing the bees arranged in organized rows close to the beekeeper priest, reflecting a sense of calmness and harmony.
2. Among the techniques used by the Ancient Egyptian to quiet the bees and be able to approach the hive was smoking with incense. This technique shows the reverence the Ancient Egyptian felt towards the bees as incense was a sacred material and its name 'snTr' literally meant : 'to make deified, divine'.
3. Among the ways the Ancient Egyptian communicated with the bees was to call them raising his arm friendly. This posture of invocation called in Ancient Egyptian 'nis' could be a true indicator of the kind communication exchanged between the Ancient Egyptian beekeeper and the bees.
4. The bee was considered by the Ancient Egyptian a life-supporting being. In fact besides being a real example for order, commitment, hard work and loyalty, she contributes in keeping the cycle of life, in supplying us with beneficial products and even bee stings are considered therapeutic. Bee venom contains compounds with anti-inflammatory effects. By reducing inflammation, these compounds promote healing and alleviate pain. Bee sting therapy, which is a branch of alternative medicine, involves administering bee stings at specific points on the body. It is also known as : Bee venom therapy and apitherapy.
5. The Ancient Egyptian probably knew that the round paths the bee effectuates during her flying are not aimless and that they are a way of communication between the bees to locate the areas where flowers and nectar abound.
6. The Ancient Egyptian gave the bee meaningful names reflecting her constructive nature, her capability of organized work as well as her rooted loyalty towards her colony and her hive.
7. There is a possibility that the goddess 'Men-bit' was a designation of the queen bee. In fact this name includes features and attributes that are closely applicable to the queen bee whose vital role in the hive is like a balance centre for all the bees inhabiting the hive, regulating the unity of the colony.
8. The Book Imy-Duat mentions bee deities having a guiding role in the other world such as: 'Bitet-tepet inet', about which the texts say that is was her voice (together with other deities) who led the great god. In fact, among the multiple duties bees perform energetically, scouting is of a major importance. The 'scout bee' informs through 'dancing' the rest of the colony about the location of flowers and new homes in case they are swarming.
9. Finally, scientists noticed that the bee dies if separated from the rest of the colony, for this beneficent insect is social motivated to the deepest level. For all these reasons and maybe others the Ancient Egyptian revered the bee inviting us to contemplate with more attention this blessed being.

"إن في ذلك لآية لقوم يتفكرون"

(سورة النحل : 69)

(Verily, in this is indeed a sign for people who think)

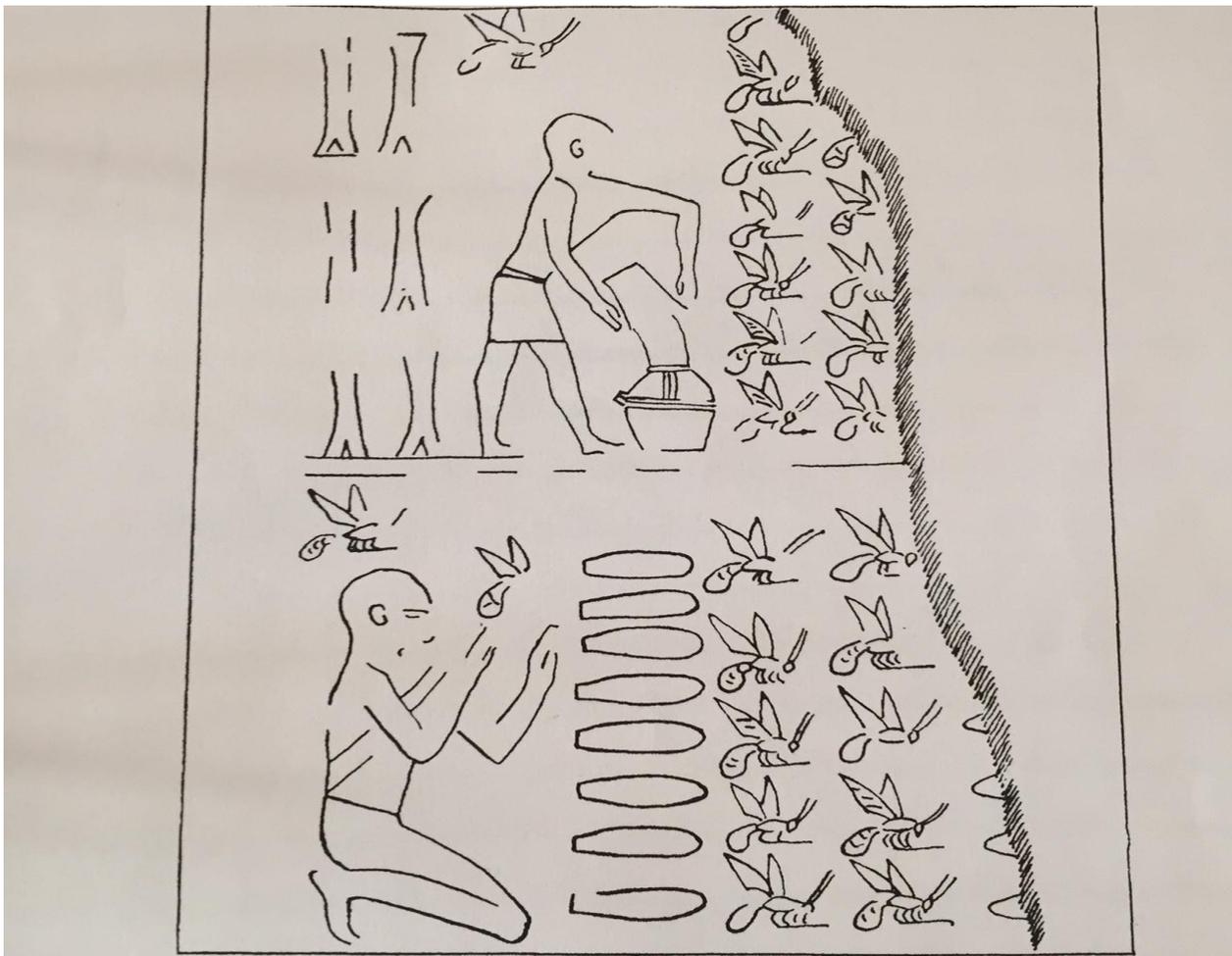


Fig. 1

Scene of a beekeeper / priest in the posture of adoration fronting rows of bees

From the tomb of Pabasai at Thebes

(G. Kuény, 'Scènes apicoles dans l'Ancienne Egypte', *JNES* 9 n° 2, 1950, 86)

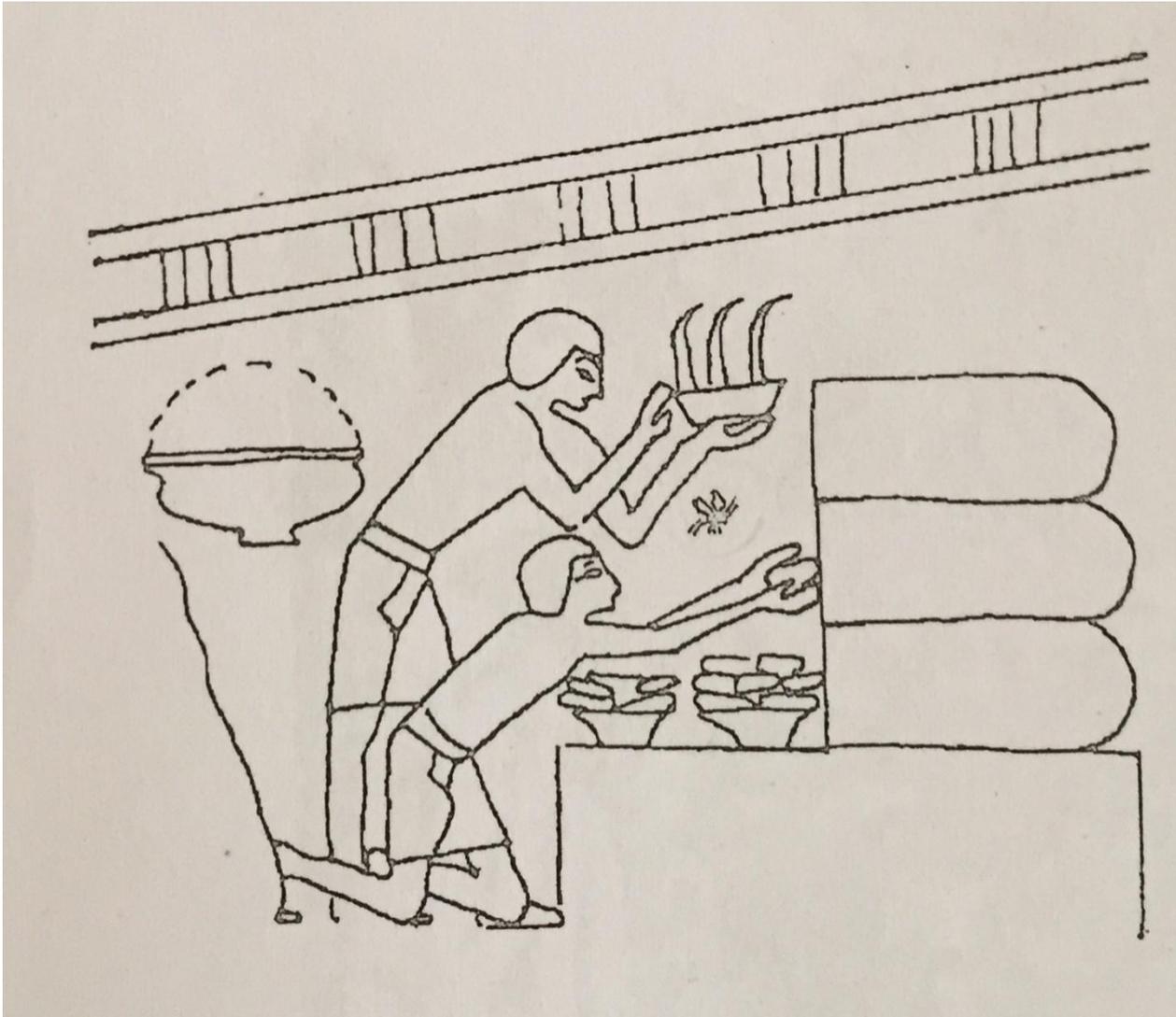


Fig. 2

Scene of a beekeeper censing beehives with a fumigator

From the tomb of Rekmira at Thebes

(G. Kuény, 'Scènes apicoles dans l'Ancienne Egypte', *JNES* 9 n° 2, 1950, 85)

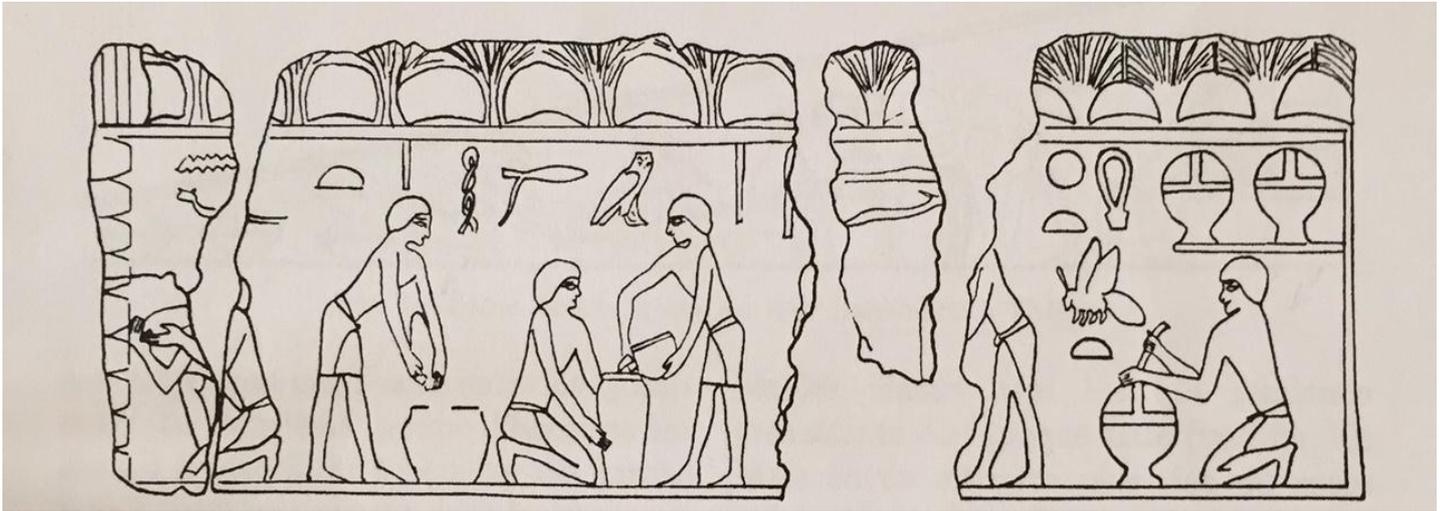


Fig. 3

Scene including the Ancient Egyptian verb (*nft*) from the solar temple of king Niuserra at Abou-Ghorab
 (G. Kuény, 'Scènes apicoles dans l'Ancienne Egypte', *JNES* 9 n° 2, 1950, 84)



Fig. 4

Scene representing the goddess 'Bitet-tepet-inet'

Book Imy-Duat : Second hour

(E.A.W. Budge, *The Egyptian Heaven and Hell*, New York, 1996, vol. 1, 30)



Fig. 5

The Four gods 'Bityw', Book Imy-Duat : Sixth hour

(E.A.W. Budge, *The Egyptian Heaven and Hell*, New York, 1996, vol. 1, 117)



Fig. 6

The queen bee (marked with pink color)

(We can see that the body is thinner and more elongated than the rest of the bees)

المستخلص

تبجيل النحل فى مصر القديمة

شيرين أبو زيد حسن

"و أوحى ربك إلى النحل أن اتخذى من الجبال بيوتا و من الشجر و مما يعرشون ثم كلي من كل الثمرات فاسلكي سبل ربك ذللا يخرج من بطونها شراب مختلف ألوانه فيه شفاء للناس إن فى ذلك لآية لقوم يتفكرون"

صدق الله العظيم (سورة النحل : 68 – 69)

خص الله تبارك و تعالى فى كتابه الكريم سورة باسم النحل و هو بصيغة الجمع ، و ليس سورة النحلة ، كما تحدث عنها بصيغة الجمع أيضا حيث قال تعالى: "و أوحى ربك إلى النحل"، و فى ذلك إشارة واضحة إلى طبيعة الحياة الجماعية التى يعيشها النحل و التى تتميز بدقة نظامها و روعة بنائها.

يتوجه الخطاب بقوله تعالى (إتخذى .. كلي .. أسلكي ..) إلى مجموعة محددة داخل خلية النحل ، و هى إناث النحل، حيث أن كل الأعمال داخل الخلية و خارجها تقتصر فقط على الإناث دون الذكور الذين ينحصر دورهم فى تلقيح ملكة النحل، و لهذا وردت الألفاظ مؤنثة مطابقة لما أثبتته العلم الحديث.

لقد كان لدى المصرى القديم معرفة و تقدير عميقين للنحلة ، أخذوا فى الإعتبار أنها مصدر العسل الذى يحتاجه فى أعمال الطب و التحنيط إلى جانب كونه غذاء طيبا. تأمل المصرى القديم كيف تستفيد النحلة من كل شيء ينمو فوق سطح الأرض لنتج العسل الطيب كما ورد فى نص منقوش ببيت الولادة بمعبد إدفو: "كل شيء ينمو على ظهر جب هو لروحك ؛ النحلة تستخدمه لصنع العسل لك".

إن المصطلحات والتعبيرات التى استخدمها المصرى القديم للإشارة إلى النحل أو وصفه تدل على أنه كان يعلم الكثير عن طبائع النحل وسلوكه سواء داخل الخلية و خارجها مما أدى به إلى شعور بالتقدير العميق للنحل لهذا الشعور الذى وصل إلى حد التبجيل كما رأينا من خلال النقوش و النصوص المصرية القديمة.

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