

# OPENING TURQUOISE GALLERIES: DIVINE GIFT OR SCIENTIFIC EXPERIENCE?

**Ahmed MANSOUR**

*Calligraphy Centre, Bibliotheca Alexandrina, Alexandria, Egypt*

## ABSTRACT

Turquoise was mined mainly in Sinai, at Maghara and at Serabit 'el-Khadim. Before the ancient Egyptian miners started their mining work, they would seek the permission of the relevant divinity, in order to proceed, i.e.: of Hathor (*lady of turquoise / nbt-mfk3t*). This permission could be obtained either by retrieving the mined minerals, or by praising the divinity, or by performing a special cult ritual celebrating the opening ceremony. Factors such as the divine control over the mineral Universe could easily raise the question: opening a turquoise gallery was a divine gift at first; then a scientific experience at second. In this paper we shall try to shed light on the efforts of the ancient Egyptian miners in the turquoise mines in Sinai as well as to their veneration of divinities.

## I. INTRODUCTION


Turquoise was mined mainly in Sinai: at Maghara and at Serabit 'el-Khadim. Before the ancient Egyptian miners would have left their homes in the Nile Valley, they prayed to the divinities. Their prayers were dedicated to different divinities: the local divinity from where the miners debouched; the route divinity by whom the Expedition passed. In addition, upon the arrival of the ancient Egyptian miners to the mine area, and before they started their mining work, they would tend to ask the permission of the relevant divinity, i.e.: Hathor<sup>1</sup>, in order to proceed. This permission could be obtained by several aspects: retrieving the mined minerals. This aspect explains the utmost desire of the Egyptians miners to venerate their mistress, by offering her some of the mined minerals or metals. Moreover, they would be praising and praying to her before they start their work or after accomplishing it. Such divine control over the mineral Universe raises the question: is the opening of turquoise galleries considered as a divine gift at first level and then as a scientific experience at a second–one? The answer of the question above has to be discussed in the frame of two important mining formulas. Those formulas occurred in Sinai inscriptions since the Era of the Old Kingdom and onwards.

## II. THE PROSPECTION FORMULA

It occurs frequently in the Serabit 'el-Khadim [FIG. 1, 4] inscriptions (IS53, IS106, IS110, IS114, IS124B, IS137WF, IS146SE, IS196 and IS413). It reads as follows:

---

<sup>1</sup> At Serabit 'el-Khadim, Hathor appeared from the 12<sup>th</sup> Dynasty bearing the epithet *lady of turquoise (nbt-mfk3t)*. The *Coffin Texts* correlate clearly Hathor with turquoise. The Spell reads: *The mountain was broken, the stone was split, the caves of Hathor were opened up, the eastern horizon was opened for Hathor, so that she might go forth in turquoise and could be clothed in her nemes–headdress*. In addition, Hathor was ascribed as *mfk3t inm hnt Psdt* «turquoise colour before the Ennead». Such epithet reflects the role of Hathor when she is provided with the light of turquoise and seated on the prow of the bark of Rē<sup>c</sup>, in order to guide the divinities through the darkness. See FAULKNER, 1973, *CT*, I: Spell 486; DENDARA, IV, 1935: 77, 4-5; AUFRÈRE, 1991, II: 507.

a. [IS53] 

*Dww hr sšmt r ntt im shd.sn imnt imyt.sn dww h3swt hr 3wt.sn. It<.f> Gb hnk.f st-hr ... T3-tnn.*

*The hills will lead to that which is in them, they bring to light what is hidden within them, all hills and the hill-country. His father Geb places it upon [...] Tathenen.*

b. [IS110S] 

*[Dww hr sšmt r ntt im]. Di.sn n.f st hr st-hr.f m dd(w) n.f it<.f> Tm(w).*

*The hills will lead to that which is in them. They offer to him what is under his charge (lit.: surveillance), that is to say what is giving to him his father Atūm.*

c. [IS114W] 


*Dww hr sšmt r ntt [im shd].*

*The hills will lead to that which is in them, [they bring to light].*

d. [IS124B] 

*Dww <hr> sšmt r ntt im n Nsw-Bity Ny-M3<sup>c</sup>t-R<sup>c</sup>, ʿnh dt. Di.sn n.f st hr st-hr.f m dd(w) n.f it<.f> Tm(w). Di.sn n.f mfk3t nbt imnt n t3 s[t] hr <s>t-<hr> n Gb.*

*The hills will lead to that which is in them for the King of Upper and Lower Egypt N(y)-Ma<sup>t</sup>-Rē<sup>c</sup> (Amūnem-hat III), living forever. They give to him what is under his charge, (that is to say) what is giving to him his father Atūm. They offer to him all turquoise hidden in the land, that which is under Geb's charge.*

e. [IS196] 

*Dww hr sšmt [m] ntt im n nsw di n.f imyt.f.*

*The hills will lead to that which is in them for the King and offer him what is in them.*


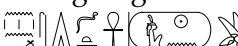
f. [IS413] 

*<Di>.sn imnt imyt.sn dww h3swt hr 3w(t).sn.*

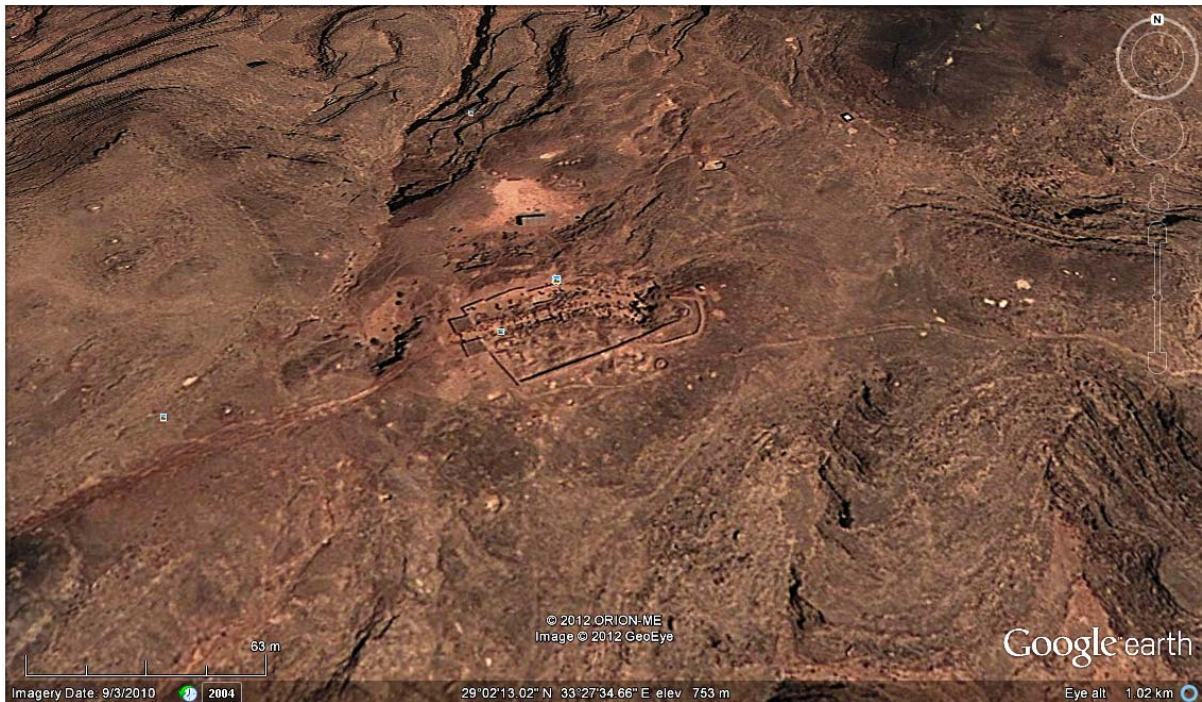
*[They (actually: all the hills and the hill-countries)] offer what is hidden within them.*

These are the most complete extant texts of this formula. Generally, it is translated as:








*The hills will lead to that which is in them, they bring to light what is hidden within them, his father Geb places them upon ... Tathenen [IS53]; or The hills will lead to that which is in them for the King of Upper and Lower Egypt N, living forever. They have given it to him under his surveillance, that is to say what is giving to him his father Atūm [IS124B].*

It is noted that the word  *dww* hills is repeated in almost all texts. The ancient Egyptians were clever in assigning where turquoise occurred. In addition, we note that in this following sentence:  *n Nsw-Bity N(y)-M3<sup>c</sup>t-R<sup>c</sup>, ʿnh dt, di.sn n.f: for the King of Upper and Lower Egypt Amūnemhat III, living forever*, the phrase «they have given» reflects that the mining of turquoise was a monopoly of the royal court. Although, the king's officers spent their effort to get into turquoise mines, the king had the monopoly of such mines. Bloxam pointed out the royal power that has been traditionally viewed as holding on a complete mo-

nopoly of land ownership, labour and long-distance trade, particularly during the Old Kingdom<sup>2</sup>. The «economic imperialism» of the Old Kingdom reaches its maximum in the 5<sup>th</sup> Dynasty to the early 6<sup>th</sup> Dynasty<sup>3</sup>. Sahurê<sup>c</sup> is mentioned in the Palermo Stone as retrieving 6.000 measures of turquoise from the terraces of the turquoise-land<sup>4</sup>.



**FIGURE 1:** The Temple of Hathor at Serabit `el-Khadim Plateau (taken from GOOGLE EARTH).

Regarding the divinities, the Heliopolitan Ennead – Atūm  and Geb , together with Tathenen  – appeared repeatedly in this formula. Their presence is due to the fact that each one of the Ennead gods had a particular role in the process of mining. Furthermore, the ancient Egyptian scribe used the plural suffix  .sn to indicate that all the three divinities are involved in opening turquoise galleries. One final note on the text composition is that the ancient Egyptian used the expressions ,  and , in order to refer to the fact that turquoise exists inside the sandstone of Sinai hills. This proves that turquoise is hidden inside the hills, and in principle the ancient Egyptians needed the help of divinities, in order to extract it, as well as their own mining and engineering skills.

## COMMENTS

This formula played a vital religious role. In ancient Egypt, the extraction of metals and minerals was considered as a divine gift. Hathor, for example, addresses her speech to the king thus: «I (Hathor) give you the two cliffs which offer you the divine minerals, as it is the most marvelous thing to see»<sup>5</sup>. The deities, therefore, assisted the extraction, in order to be purified, fed and protected against malevolent beings, and to be conveyed joy through receiving offerings of minerals, or products made of minerals, with whose colours they had an affinity<sup>6</sup>.

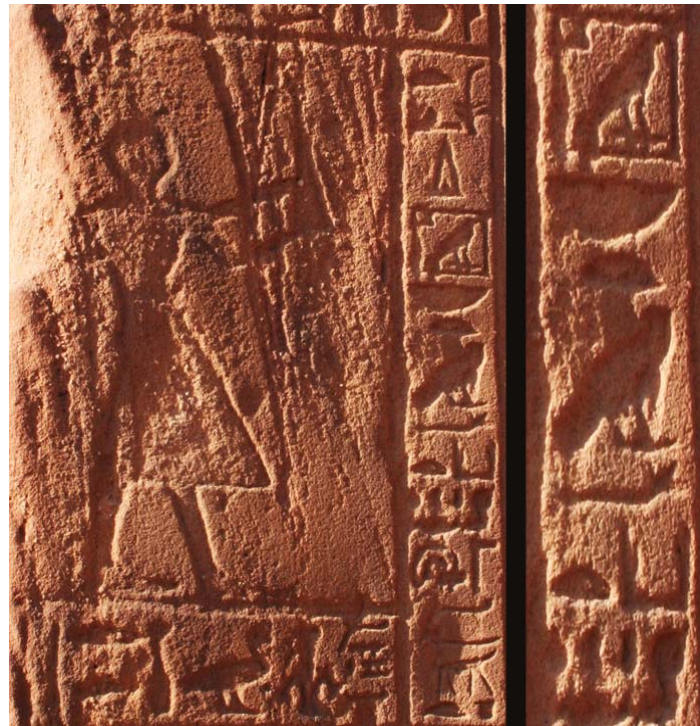
<sup>2</sup> See BLOXAM, 2006: 280.

<sup>3</sup> See PARCACK, 2004: 41-60; MUMFORD, 2006: 54.

<sup>4</sup> See KITCHEN, 1993: 587, 606-607 & n. 1. [EDITOR'S NOTE: On turquoise as a mineral *per se*, see also CHESTERMAN & LOWE, 161998: 488-89 & fig. 47, 77, 113].

<sup>5</sup> See AUFRÈRE, 1991, I: 13.

<sup>6</sup> See AUFRÈRE, 1991, I: 20.



**FIGURES 2-3:** [2]: Representation of Hathor as a human figure. [3]: The epithet of Hathor as *lady of turquoise*.

Specific joys were related to specific stones such as *hb*, *hkn*, *mfk3t*, *hsbd*, *thn*. These minerals played a part in purification ceremonies through immersion in water flowing from the deities' statues, or by censuring, thus providing a pleasant perfume for the deities<sup>7</sup>. The same formula appeared in the amethyst mining inscriptions of Wadi 'el-Hudi with some variation<sup>8</sup>. Therefore, some offerings were dedicated to Geb<sup>9</sup>. The exploitation of turquoise under the auspices of Hathor [FIG. 2-3] is considered as recognition of the divine aspect of the Egyptian Kingship. Therefore, Geb, to whom the throne is transmitted after his father Shū, who inherited it, in turn, from his grandfather Atūm<sup>10</sup>, acquired the title *iw<sup>c</sup>w-ntrw/heir of the gods*<sup>11</sup>. The Temple of Geb is of relative importance as it is considered the place where the royal sovereignty was transmitted from the divinities to the Egyptian kings<sup>12</sup>.

In the meantime, the composition of the texts is almost consistent. The main idea is that the ancient Egyptian miners put the extraction of turquoise under the patronage and auspices of the divinities. Such formula could be considered as a part of the divine oracle, which helps at extracting turquoise properly. Usually, the oracle is a typical «constellation» with the divinity in the cadre of regular cult<sup>13</sup>. The divine oracle related to turquoise mining goes back to the 5<sup>th</sup> Dynasty, during the reign of Djedkare<sup>14</sup>. Thus, upon the arrival of the Egyptian miners at the plateau of Serabit 'el-Khadim — as a tradition — they prayed to the divinity, i.e.: Hathor, to guide them to the proper places of turquoise (see *supra*). The question arises: how did the Egyptian miners know Hathor's will or instructions? It is probable that they slept around the

<sup>7</sup> See AUFRÈRE, 1991, I: 20.

<sup>8</sup> See SADEK, II, 1985: 34, 85.

<sup>9</sup> See TE VELDE, 1977: col. 427.

<sup>10</sup> See VALBELLE & BONNET, 1996: 131.


<sup>11</sup> See TE VELDE, 1977: col. 428.

<sup>12</sup> See VALBELLE & BONNET, 1996: 42.

<sup>13</sup> See BAINES & PARKINSON, 1997: 9.

<sup>14</sup> See *op. cit.*: 23.



temple [FIG. 4] to get the divinity's oracle, guiding them to the correct place of turquoise. An important evidence is that the workers' settlements were constructed between the temple and the mines. Thus, the miners could obtain the divinity's oracle being also near to the mining area<sup>15</sup>. There is an important title revealing the nature of turquoise prospection.

 *Ms ʕt* (= *Prospector*)

The title means *specialist of hard stone* or *prospector* and contains two parts: the verb *ms(i) give birth*, and the word *ʕt*, in its literal meaning *mineral/stone, hard material of mineral origin*<sup>16</sup>. Thus, such title could be interpreted: *the one who gives birth to the stones*, after acquiring the permission from his (divine) mistress.



**FIGURE 4:** A general view of the Temple of Hathor at Serabit 'el-Khadim.

The relation between Geb and Tathenen with the previous formula could be interpreted in the frame of their occurrence in the Sinai inscriptions. They are related with the myth of turquoise and the celebration of the royal festival, i.e.: the Heb-Sed<sup>17</sup>. Tathenen<sup>18</sup>, similar to Ptah, is related to goldsmithing and the world of minerals, in order to manufacture the *bbt*-collar<sup>19</sup>. His name  occurs in several inscriptions, such as: IS53, IS136W, IS196, IS263 and IS273. Tathenen obtained the minerals from Geb , i.e.: the Earth<sup>20</sup>, since Geb holds the secrets of the religious rituals and the wealth of the earth<sup>21</sup>. Meanwhile, the mountains are considered

<sup>15</sup> See CHARTIER-RAYMOND, 1988: 17.

<sup>16</sup> See AUFRÈRE, 1991, II: 72. [EDITOR'S NOTE: Cf. also HANNIG, 2009: 140; HARRIS, 1961].


<sup>17</sup> See SCHLÖGL, 1986: cols 239-40; AUFRÈRE, 1991, I: 190; VALBELLE & BONNET, 1996: 41.

<sup>18</sup> See LEITZ, 2002: 346.

<sup>19</sup> See IS, I: 53; cf. AUFRÈRE, 1991, I: 131.

<sup>20</sup> See GRIMAL, 1963: 172.

<sup>21</sup> See SHAHYN, 1981: 104.

as  *dw w<sup>c</sup>b* (= *pure hill/place*), where all the minerals are kept and deposited. Therefore, the mountain, virtual temple itself, stands for the mining district that should have all the minerals which help in the manufacturing of the liturgical instruments needed for the cult of the divinities and the temple foundation stones<sup>22</sup>. An offering formula occurs in Edfu Temple referring to the role of Tathenen in the fashioning of the foundation bricks of precious stones<sup>23</sup>.


### III. THE COMMEMORATIVE FORMULA *Htt nhbt n rh-Nsw*

This formula commemorates the opening of a new gallery, where mining activities will take place. It occurs in Serabit el-Khadim in IS47, IS48, IS49, IS51 and IS56. It reads as follows<sup>24</sup>:

**g. [IS47]** 

*Htt nhbt.n rh-nsw m3<sup>c</sup> mry.f.*

*A gallery X opened up by the true royal acquaintance, beloved of him.*

**h. [IS48]** 

*Htt nhbt.n rh-nsw mry.f.*

*A gallery X opened up by the royal acquaintance, beloved of him.*

**i. [IS51]** 



*[Htt] nhbt.n <r>h-nsw mry[.f].*

*[A gallery X] opened up by the royal acquaintance, beloved [of him].*

**j. [IS56]** 

*Htt Pirt-Nfrw Hwt-Hr nhbt ...*

*A gallery «Seeing the Beauty of Hathor» opened up by ...*

These are the most complete texts of this formula. Generally, it is translated: *A gallery X opened up by the true royal acquaintance, beloved of him*. It is noted that the composition of the text is consistent. It begins with the word  *htt* (*gallery/mine*). It has the sign  *pr* (*house*) as a determinative, which describes the gallery as an enclosed space. IS56 refers to the name of this gallery *Seeing the Beauty of Hathor*. The dedication of this gallery to Hathor is accepted in the frame that she is the patroness of the turquoise mines. Furthermore, the opening of a new turquoise gallery was considered an important occasion, so that it was undertaken by an important official of the royal court, i.e.: a true royal acquaintance.

#### COMMENTS

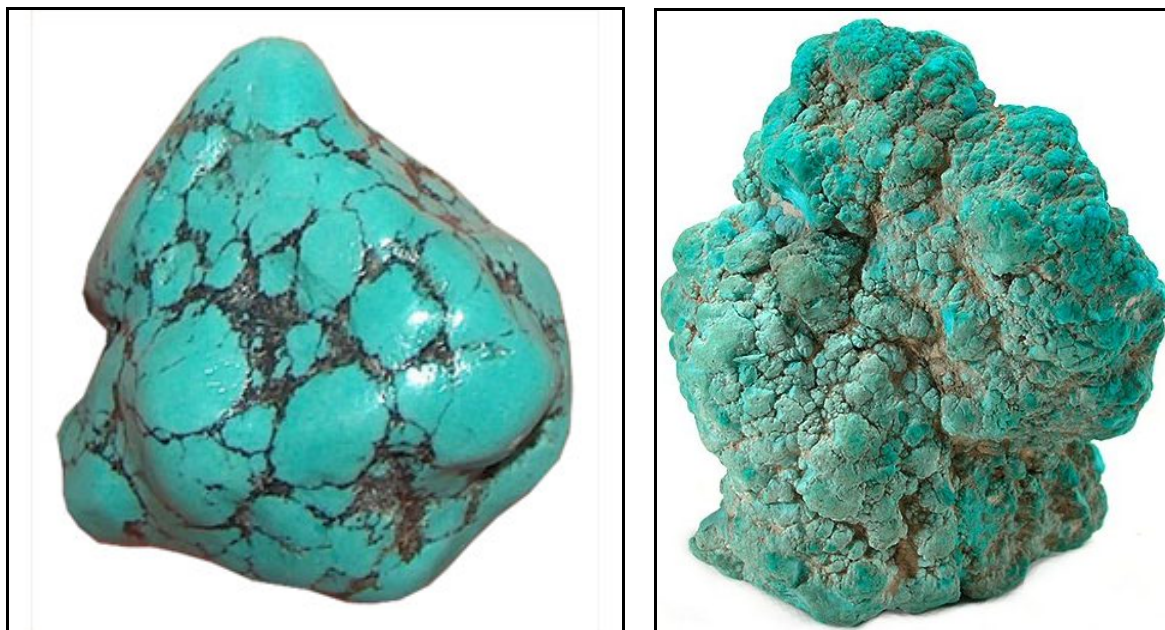
Before starting the opening of a new gallery, a Mining Expedition would seek the permission of the relevant divinity to proceed, i.e.: Hathor. This permission could be obtained by retrieving the mined minerals, or praising the divinity, or performing a special cult ritual celebrating

<sup>22</sup> See AUFRÈRE, 1991, I: 193.

<sup>23</sup> For the enclosure wall (external face), see EDFOU, VII, 1932: 47, 4-13 & pl. CLXIII.

<sup>24</sup> For the word *nhb* with this meaning, see Wb. II, 307: 9; HANNIG, <sup>5</sup>2009: 450.

the opening ceremony<sup>25</sup>. The commemorative formula is intimately related with the internal exploitation of the turquoise galleries, as follows: After having prayed to Hathor and getting her oracle, comes the internal exploitation that represents the «scientific» and «engineering» experience of the ancient Egyptians to extract turquoise from the sandstone layers in Sinai.



**FIGURES 5-6:** Two specimens of turquoise (anc. Eg.: *mḥkt* / anc. Hel.: *κύαρος*) with their characteristic cyan colour.

Once the gallery was opened, there were other steps that had to be followed inside the mine or the gallery, in order to get turquoise. A passage mentioned by Keast Lord, who visited the mines of Maghara, is considered the most important source for the description of turquoise exploitation inside the mine<sup>26</sup>: «Very soon after entering the mine we had to crawl on our hands and knees, the roof being too low to admit of any other position [...]. I examined the roof as I crawled along and observed that it was everywhere thickly covered with small and irregular marks, which had evidently been grooved out by the point of some blunt kinds of tool resembling a miner's "gad" [...]. The joints and minute cracks had been widened by pounding away the edges and the contents, whatever they might, have been, worked out as far as it was practicable for the miner to get at them. We passed several pillars of rock, which had been left, in order to support the roof as the rock was mined from beneath it. The manner in which these old miners contrived to work away the rock, so as to leave these natural columns of sandstone rock as supports, was most ingenious and one marvels at the indomitable patience these men must have possessed».

The previous quoted passage by J. Keast Lord indicates that the recovery of minerals from the earth did not involve breaking the earth crust in the full sense. Therefore, the earliest techniques could involve opening pits to sort turquoise from the surrounding waste materials<sup>27</sup>. Then, comes the stage of breaking the solid rock. The use of hammers was necessary, in order to make the surface less hard<sup>28</sup>. Therefore, the extraction of turquoise couldn't be done by se-

<sup>25</sup> See AUFRÈRE, 1991, I: 59.

<sup>26</sup> See IS, I: 23.

<sup>27</sup> See e.g.: SHAW, 1998: 5.

<sup>28</sup> See *op. cit.*: 6.

dimentation because of the density of sandstone<sup>29</sup>. However, this step was the preliminary phase that should be followed by the filtering process.

#### IV. CONCLUSIONS

The opening of turquoise galleries by the Egyptians in Pharaonic Egypt can be considered as a divine gift based more on empirical knowledge, than as a scientific experience. The ancient Egyptians considered the minerals a divine gift, since Hathor (*Hwt-Hr*) addresses her speech to the king as follows: «I (Hathor) give you the two cliffs which give you the divine minerals, as it is the most marvelous thing to see»<sup>30</sup>. Hathor or any other divinity, aided the discovery and extraction of minerals, in order to be purified, fed and protected against evil things, as well as to derive pleasure from receiving offerings of minerals, or products made of minerals, with whose colours gods had an affinity<sup>31</sup>. Then, the ancient Egyptians applied their empirical knowledge (or so to say their pre-scientific experience), not their scientific knowledge, in order to mine turquoise [FIG. 5-6]. They fulfilled a highly skilled prospection, established more on empirical knowledge than on technology<sup>32</sup>. This very fact could be proven by the high prudence and cleverness paid to mining procedures at Serabit `el-Khadim and Maghara, as the Egyptians used some bronze tools — left *in situ* — instead of copper ones.

#### BIBLIOGRAPHY

- AUFRÈRE, S.: «Caractères principaux et origine divine des minéraux», *RdE*, **34**, 1982-83, 3-21.
- AUFRÈRE, S.: *L'univers minéral dans la pensée égyptienne: I: L'influence du désert et des minéraux sur la mentalité des anciens Égyptiens; II: L'intégration des minéraux, des métaux et des «Trésors» dans la marche de l'univers et dans la vie divine*, Le Caire (IFAO / BdE, **105**) 1991.
- BAINES, J. & PARKINSON, R.: «An Old Kingdom Record of an Oracle? Sinai Inscription 13», *Essays on Ancient Egypt in Honour of Herman te Velde* (van Dijk, J., ed.), Groningen (Styx / Egyptological Memoirs, **1**) 1997, 9-27.
- BLEEKER, C.J.: *Hathor and Thoth: Two Key Figures of the Ancient Egyptian Religion*, Leiden 1973.
- BLOXAM, E.G.: «Miners and Mistresses: Middle Kingdom Mining on the Margins», *Journal of Social Archaeology*, **6**<sup>2</sup>, 2006, 277-303.
- CHARTIER-RAYMOND, M.: «Notes sur Maghara (Sinai)», *CRIPEL*, **10**, 1988, 13-22.
- CHARTIER-RAYMOND, M., GRATIEN, B., TRAUNCKER, C. & VINÇON, J.-M.: «Les sites miniers pharaoniques du Sud-Sinai: quelques notes et observations de terrain», *CRIPEL*, **16**, 1994, 31-77.
- CHESTERMAN, C.W. & LOWE, K.: *National Audubon Society, Field Guide to North American Rocks and Minerals*, NY (A.A. Knopf) <sup>16</sup>1998.
- DENDARA = CHASSINAT, E.G.: *Le temple de Dendara, I-V*, Le Caire (IFAO) 1934-47.
- EDFOU = CHASSINAT, E.: *Le temple d'Edfou, IV-XIV*, (IFAO/MMAF, **20-31**), Le Caire 1928-60.
- FAULKNER, R.O.: *The Ancient Egyptian Coffin Texts, I-III*, UK (Aris & Phillips) 1973-78.
- GRIMAL, P.: *Mythologies de la Méditerranée au Gange: Préhistoire, Égypte, Sumer, Babylone, Hittites, Sémites, Grèce, Rome, Perse, Inde* (Grimal, P., Varagnac, A. et al., eds), Paris 1963.
- HANNIG, R.: *Großes Handwörterbuch Ägyptisch-Deutsch (2800-950 v. Chr.)*, Mainz (P. von Zabern) <sup>5</sup>2009.
- HARRIS, J.R.: *Lexicographical Studies in Ancient Egyptian Minerals*, Berlin (Akademie-Verlag / VIO, **54**) 1961.
- IS = GARDINER, A.H., PEET, T.E. & ČERNÝ, J.: *The Inscriptions of Sinai, I-II*, London 1995.
- KITCHEN, K.A.: «The Land of Punt», *The Archaeology of Africa: Foods, Metals and Towns* (Shaw, I. et al., eds), London (Routledge / One World Archaeology, **20**) 1993, 587-608.
- LÄ = HELCK, W. & OTTO, E. (eds): *Lexikon der Ägyptologie, I-VII*, Wiesbaden (O. Harrassowitz) 1975-89.

<sup>29</sup> See CHARTIER-RAYMOND *et al.*, 1994: 71.

<sup>30</sup> See AUFRÈRE, 1983: 13.

<sup>31</sup> See AUFRÈRE, 1983: 20.

<sup>32</sup> See BLOXAM, 2006: 290.



- LEITZ, C., *Lexikon der ägyptischen Götter und Götterbezeichnungen, I-VI, OLA*, 110-16, Leuven–Paris–Dudley 2002.
- MUMFORD, G.: «Tell Ras Budran (Site 345): Defining Egypt's Eastern Frontier and Mining Frontier and Mining Operations in Southern Sinai during the Late Old Kingdom (Early EB IV/MB I)», *BASOR*, **342**, May 2006, 13-67.
- PARCACK, S.: «Egypt's Old Kingdom "Empire" (?): A Case Study Focusing on Southern Sinai», *Egypt, Israel and the Ancient Mediterranean World: Studies in Honour of Donald B. Redford* (Knoppers, G.N. & Hirsch, A., eds), Leiden (Brill / *ProbÄg*, **20**) 2004, 41-60.
- PARKER, R.A.: «Hathor, Lady of the Acacia», *JARCE*, **IV**, 1965, 151.
- SADEK, A.: *The Amethyst Mining Inscriptions of Wadi 'el-Hudi, I-II*, Warminster (Aris & Phillips) 1980-85.
- SHAHYN, A.–A.: *Shebh Jazyret Syna: Drasat Tarykheyah wa Athareyah Hata Nehayet Aldawalah 'Al-Wosta, 'Al-Qahera* (Resalet Majestyr Jamie't) 1981.
- SHAW, I.: «New Kingdom Mining Technology with Reference to Wadi Arabah», *Proceedings 1<sup>st</sup> International Conference on Ancient Egyptian Mining and Metallurgy and Conservation of Metallic Artifacts: Cairo, Egypt, 10-12 April 1995* (Esmael, F.A. et al., eds), Cairo (SCA / Ancient Egyptian Organisation) 1998, 5-13.
- SCHLÖGL, E.H.: *LÄ*, **VI**, 1986, cols 238-40: art. «Tatenen».
- TE VELDE, H.: *LÄ*, **II**, 1977, cols 427-29: art. «Geb».
- VALBELLE, D. & BONNET, C.: *Le sanctuaire d'Hathor, maîtresse de la turquoise: Sérabit 'el-Khadim au Moyen Empire*, Paris–Aoste (Picard) 1996.
- Wb.* = ERMAN, A. & GRAPOW, H.: *Wörterbuch der ägyptischen Sprache, I-V*, Leipzig (J. Hinrichs) 1926-31.
- WITTEN, A.J.: *Handbook of Geophysics and Archaeology*, UK (Equinox) 2006.

