

DID A DENTAL PROFESSION EXIST IN ANCIENT EGYPT ?

THE existence of a dental profession in Ancient Egypt has been denied lately in a series of articles and lectures trying to refute the arguments put forward to support its existence.^{1,2} The matter is of sufficient importance to deserve a reappraisal. In this short note, the refutations are considered one by one.

1. THE EXISTENCE OF DENTISTS

Dr. Leek, the author of these arguments states that the specialization of Hesy-Re, an Ancient Egyptian physician said to be a dentist by many Egyptologists, is doubted by some others. He contends that his title '*wr ibh swnw*', translated Chief of Dental Physicians by Junker³ Jonckheere⁴ and Lefebvre⁵ could be an obscure non-medical attribution. This purely philological discussion is better left to specialists,⁶ but it must be pointed out that Hesy-Re to whom Dr. Leek restricts his discussion is not the only Ancient Egyptian to have borne a title compounded with the word '*ibh*', tooth. We know at least three others who, in addition to being '*swnw*', physicians, were either '*ibhy*' or '*ir ibh*'. The word '*ibhy*' is a *nisbe*, or adjective of relationship, formed from '*ibh*', and means 'related to teeth, concerned with teeth';⁵ '*ir ibh*' means 'who deals with', or 'makes' teeth, on the same model as '*iry psn*' bread-maker or baker, '*iry sny*' wig-maker, hairdresser.⁵

The three physicians are: (a) Ni-ankh-Sekhmet,⁷ Chief Physician (*wr swnw*), Chief of the Palace Physicians (*wr swnw pr-C3*), and Chief of the Dentists of the Palace (*wr ibhy pr-C3*); (b) Khouy,⁸ Physician of the Palace (*swnw pr-C3*), Dean of the Physicians of the Palace (*smsw swnw pr-C3*), Chief of the Physicians of Upper and Lower Egypt (*wr swnw mhw smC*), and Chief of Dentists (*wr iry ibh*); (c) Psametk seneb,⁹ Chief of Physicians (*wr swnw*), Chief of the Dentists of the Palace (*wr ibh(y) pr-c3*), and Dean of Physicians (*smsw swnw*).

The only two examples of '*iry ibh*' who were not '*swnw*' physicians are: (a) Menkaoureankh,¹⁰ *iry ibh*, who, significantly, is mentioned on a smaller scale and in a lower register, on the stele of the dentist Ni-ankh-Sekhmet, mentioned above, suggesting that he was a non-medically qualified dental subaltern, possibly a dental mechanic; (b) Neferiretes¹¹ in another's tomb. Of this *iry ibh* we know nothing.

2. THE DISCOVERY OF A DENTAL PROSTHESIS

The second point concerns the prosthesis made of two teeth joined by a gold wire woven around the gingival margin, found by Junker¹² in a burial shaft alongside a cadaver. Dr. Leek doubts the validity of this 'vital piece of evidence' (Dr. Leek's own words) because he could examine it only from a photograph and could not, therefore, confirm the existence of tartar reported by no less an authority than Professor Euler on both the teeth and the gold wire.¹² In Dr. Leek's opinion, macroscopic evidence is not acceptable since concretions may form on teeth that have been buried for a long period.

However, the fact that Dr. Leek could not examine the teeth does not necessarily mean that they were not covered with tartar, or that Professor Euler was unable to distinguish between tartar and sand. One would think that post-mortem deposits

would cover the whole surface of the teeth and that this would have given a clue to Professor Euler.

Dr. Leek's second point is that although these teeth were adjacent, they are widely separated in the photograph by a twist of wire. A ready explanation, however, is that more than one tooth may have been missing and that only one tooth was fit for preservation.

The third point is that this is a unique find. It is argued that if expert care had been available, it would have been given to a Pharaoh and yet, not one of the Royal mummies exhibited in the Cairo Museum shows any evidence of dental interference. In Egyptian archaeology, there are scores of unique or near-unique finds: the poliomyelitic leg of Siptah, the rash on the face of Ramses, the only two illustrations of circumcision, the only three trephined skulls, etc. This is not astonishing, regarding the paucity of finds in relation to the length of the Pharaonic period.

The suggestion is then presented that the teeth fell out during life and that the owner preserved them and eventually joined them together to wear them as an amulet. This would, indeed, be a unique find, for as far as I know, there is no example of teeth being worn as amulets, and this was confirmed to me by all experienced archaeologists I interrogated. If teeth were thought to possess any protective or apotropaic powers, one would have expected to find amulets fashioned in their shape, as they were in the shape of eyes, hearts, etc. In fact, it would have been contrary to Ancient Egyptian concepts deliberately to wear a broken and useless tooth in a grave, for this would create the danger of resurrection with the same defect. This was a risk that Ancient Egyptians tried to avoid by minimizing the defects in statues or images, and restricting them to those strictly necessary to the recognition of the body by the 'ka' or to the solicitation of a cure, as in the case of Rom in the stele of the Ny Carlsberg Collection.

In addition, the workmanship of the gold wiring is extremely primitive and quite different from the exquisite work of Ancient Egyptian jewellers. It is more likely a job carried out by a mechanic under the difficult conditions available in an oral cavity.

The final point is that no mention is made in the papyri of dental treatment apart from gargles and local applications. It is not necessary to point out the dangers of basing oneself on negative evidence, for neither circumcision nor trepanation are mentioned in the papyri, whereas both operations are well documented. Fortunately, however, prescriptions 739 and 740 of the Ebers mention a word 'ws3' translated 'ausstopfen' and 'plombage' respectively by Grapow¹³ and Lefebvre¹⁴ whose authority I am not prepared to question. In the prescriptions following these two, other words meaning 'to chew' or 'to be given to' (an der Zahngegeben) are used, confirming that ws3 carried a very specific meaning.

Dr. Leek makes the final reservation that his argumentation concerns the period preceding the fifth century, for at that period Herodotus wrote that there were in Egypt specialists for the teeth. One would answer that if these existed then, they must have thrived long before, for a specialization is not created overnight. We have, however, pointed out elsewhere¹⁵ that specialization, including dental specialization, seems to have existed under the Ancient Empire, to have disappeared afterwards, and

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to have reappeared at late epochs. Making due reservations as to the small number of physicians known to us (just over a hundred) relatively to the length of the Pharaonic period, this would confirm Herodotus's observation, and explain the lack of evidence of dental specialization between his times and the Ancient Empire.

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P. GHALIOUNGUI

HONOUR FOR DR. PAUL CASSAR

THE Royal University of Malta has instituted a new Honorary Fellowship of the University, and the Senate has elected Dr. Paul Cassar as the first Honorary Fellow, in recognition of his scholarly work *The Medical History of Malta*, published by the Wellcome Institute in its Historical Monograph Series.