very accurate examination of the churches, and a close inquiry into local or conditional causes, to establish the fact. It may be hoped that the interesting subject of inquiry, prosecuted by one of the local Secretaries of the Institute in Sussex, the Rev. Arthur Hussey, whose work will shortly be published, may throw valuable light upon questions of this nature, in regard to the ancient ecclesiastical remains in the southeastern district of England.⁴

SPENCER HALL.

NOTES UPON A MUMMY OF THE AGE OF THE XXVI. EGYPTIAN DYNASTY.

HAVING been asked by the Earl of Londesborough to deliver a lecture on the occasion of opening a mummy, obtained by Mr. Arden in sepulchres of Gournah, the results of the examination were of so interesting a character, that I have thought a brief notice would prove acceptable to many readers of the Journal. On the 10th of June, after giving a short précis on the general subject of embalming and mummies, I proceeded, assisted by several gentlemen, to unroll the body in question. Mr. Arden, Dr. Lee, Mr. Bonomi, Mr. Powel, and Mr. Forster, R. N., particularly assisted in the operation. The mummy was encased in what is technically called a "cartonage," consisting of several folds of linen glued together by some viscous substance, and then covered with a remarkably smooth and thin layer of stucco, on which had been neatly painted certain religious subjects. At the foot was a board of sycomore wood, which had been attached to the cartonage by two wooden pegs obliquely driven through it. The outside was coloured yellow. The cartonage itself was moulded in the shape of the mummied body before, and with a flat upright plinth behind, the base terminating in a square pedestal, like a statue, and which calls to mind the setting upright of the bodies in order to perform the funeral masses. In the present case the cartonage was remarkably thick, and composed of at least 20 layers of linen, measuring about $\frac{1}{4}$ inch thick. The whole measured

One vol. 8vo. London. J. Russell Smith. This useful work, the result of long investigation, is now in the press.

^{4 &}quot;Comparative Hist. of the Churches in Kent, Sussex, and Surrey, with Notes on their Architecture, Sepulchral Memo-rials, &c." to be published by subscription. VOL. VII.

5 feet 6 inches long, but the mummy was much shorter. The upper half of the cartonage had undoubtedly been painted with some of the usual subjects; but this had been then gilded, and after that coated with bitumen, so that on first inspection the body resembled a huge chrysalis. I only know another instance of this nature, which is the mummy of a certain Khonsaufanch, priest of Amenophis I., in the collections of the British Museum (No. 6682), which is literally glued down to the chest of the coffin by the bitumen which has been poured over the cartonage, gilded, but showing through the gold the original fresco painting. In the present instance no painting was here visible. Those behind were, however, partially spared, and down each side, extending from the shoulders to the pedestal, were two perpendicular lines of hieroglyphics. Neither of these was perfect; but enough remained to show that they were the usual formulæ,1 containing the name, titles, and genealogy of a female named Anch-sen-hesi (she who lives by Isis)—entitled hur mut? en Amen, chief mother (?)2 of Amen, daughter of a divine, or as we should say, "reverend father (atf neter) of the god Amen," whose name was obliterated; but among whose titles also occurred that of her sa, "at the third side." turn, or "rank," which I have not seen earlier than Shishak I., but which often occurs under the Ptolemies.3 From this I was induced to consider that its age was from about 1000-700 B.C., judging from the general style and appearance. There also remained in one of these lines . . nas anch, probably Jot-Amen-as-anch, the name of her mother. It is evident from all these facts, that the lady was of a good Theban family, of the sacerdotal order. It was supposed by some that the cartonage exhibited this peculiar appearance from having been employed a second time; but when examined, the mummy lay intact, and the outer coating had not been

'It is offered,' " &c. I could cite many other instances.

not require celibacy.

3 Champollion, Monumens Egyptiens,
t. iv., Pl. cccxlix. Cf.; Prisse, Mon. Eg., Pl. xxv., 2; Sharpe, Eg. Inscr., Pl. iii., 4; Pl. xxvii. xlviii., 1, 2.

¹ I allude to the common formula commencing "the king (suten) offers," or "it is offered (su ta hetp)," to the sepulchral divinities. On one tablet (No. 215, Brit. Mus.) this is called ar su, ta hetp, "to make an all hail!" On certain monuments, such as a shrine to hold a figure (Brit. Mus., No. 471), this is preceded by (Brit. Mus., No. 4/1), this is preceded by an address, "Oh, all ye who live on earth, (a anchu neb apu ta), all scribes, all priests, all mourners (heb), all spondists, who cross by this statue, as ye love and obey the gods of your country, say ye,

² This sacerdotal corps at Thebes seems to have consisted of fathers (atf), mothers (mut), wives (hem), concubines (sua), of the god Amenra, who formed a parti-cular order, and are all mentioned on different monuments. The institution did

disturbed. It was necessary to neatly saw this cartonage in two pieces, in a right line passing down the nose, and between the feet in front, and down the back behind, by which means no serious injury was done either to the painting or to the portions of inscriptions that remained. At the back was a figure of the *Tat* or Osiris *Tattu*—the god being represented as the *Tat*, or so-called Nilometer, with a face and two arms, one at each side.⁴ The top was surmounted by the cap of Osiris, in his character of judge of Hades—consisting of the cap and two tall plumes placed on the horns of a goat. At the right side was Isis wearing a throne on her head, kneeling and deploring, and two of the four genii of the dead—Amset and Hapi. The titles at this side designated the lady—Anch-sen-hesi, "the lady of a noble house," or "the noble house." This subject of Osiris Tattu is not uncommon at the backs of mummies, but the mystical meaning of it is not known, and without doubt the figures of Nephthys and the two other genii were concealed in the cartonage. Having removed this outer covering or shell, we proceeded to examine the mummy which was then exposed, bandaged with great neatness in linen of a very dark brown colour, and much smaller than the cartonage, so much so that it had a thick coating of stucco to make it fit to this at the head. After removing a few layers of bandages, consisting chiefly of narrow and short slips, we arrived at a second cartonage, but of a nature quite dissimilar to the first, presenting externally a reddish brown colour, like iron rust, and with globules or crystals of a fine gum and other substances disposed all over it. As it was clearly impossible to pull off this cartonage, an incision was made through it all round the body, passing round at the arms, and this revealed straps of leather of the breadth of an inch, terminating at their ends in a chevron of between two and three inches broad, passing round the neck, crossing at the breast, their ends being placed at the sides. They were about a line in thickness, stained of a yellow colour behind and of a pale red in front, and the ends had been embossed either with the name of a monarch or the figure of one offering to a god, but they were very dry, brittle, and illegible.

and western horizon, at his head and feet; and the four genii, the cardinal points, around him.

⁴ Perhaps tattu means the earth. The deceased, as Osiris, is laid upon it, overshadowed by Menpe or Nupe, the firmament, has Isis and Nephthys, the eastern

was the more to be regretted, as they would have decided the age of the mummy. After this the bandages consisted of a series of layers neatly applied, with some exceedingly coarse ones used as pads to fill up the vacant spaces—after which the body was protected by another cartonage of layers of linen joined with gums, similar to the preceding, but not quite so thick, and on removing this, by an incision made all round the side of the mummy, there was found between the bandages beneath, a papyrus with vignettes and writing in the hieratic character, all in black ink, wrapt round the legs, two or three times.

The character of the papyrus was fine, the colour white, the texture good, the drawing careful, and the script remarkable for that neat squareness seen in documents about the Ptolemaic and Bubastite period, more conventional and not

so bold as the earlier handwritings.5

The vignettes that remained, represented a figure of the god Ra, hawk-headed, and wearing the uræated disk, seated on a throne, apparently in one of those judgment scenes which occur on papyri of this epoch,—such as will be seen in the last plate but one of Denon's work. Two figures, females, one called Shai, "length,"—the other Nebtshai, "the mistress of length,"—evidently, from their names, some of the Hours which tow the Boat of the Sun in the papyri which represent the solar processions through the heavens, and which are solar litanies, called Ta sha em sba, "the book of being in the Place of Gates," or "Firmament," seemed part of a second papyrus.

Of the text, too little was unfolded to make out, except such phrases as jet an Neb t en a, "said the lady of the house," a proof that the mummy was that, which it professed to be, of a female. Continuing to unroll the bandages, the body was found in a condition so exceedingly brittle, owing to the bitumen and other drugs having penetrated the cancellated structure of the bones, that the head came off close from below the cerebellum. The brain had been removed through the nostrils, and the whole of the inside of the skull plugged with linen cloth. The head was not entirely denuded of its bandages, as I shall have occasion to mention. The whole of the bandages were exceedingly charred, but as the

Dynasty. Denon, Voyage, Pl. 137, 138; Cf. also Ibid., 136, 137.

⁵ See the Papyri of Osorkon, priest of Amen, son of Sheshak, high priest of Amen, grandson of a king named Osorkon, 22nd

unrolling continued, they became blacker and still more so close to the body, where they were reduced to a mass of tinder. When the body, or actual flesh, was exposed, it presented one black bituminous mass, having been prepared by the pitchy process, and resembled a fossil to be eliminated by the use of the chisel and the knife. The general pose of the body was that of being laid at full length, the legs close together, and the hands brought down to the groin, which they covered as if for decency. In looking for the flank incision at the left side, which we found, it was discovered high up and under the arm, and it was carefully sealed or closed with a tin plate measuring four inches long by three inches wide. On the outside of this was incised, in outline, the symbolical left eye. The object of the placing of this eye over the flank incision is alluded to in the 140th chapter of the Ritual⁶ called "The Book of what is to be done on the 30th of Mecheir, when the eye is full." The rubric of this chapter states that it refers to an eye of refined (?) tin (chesbet mamaka), the lid or section of which is washed with gold, and to a second eye of brass or jasper. Certain offerings had to be made before it, in order that the deceased might pass into the Boat of the Sun like the other gods.

It will be seen that the whole of these amulets had reference to the condition of the deceased in her future state. Across the lower part of the breast was a thin strip of tin, about four inches long and an inch broad, on which was also engraved, in outline, the scarabæus flying with expanded wings from beneath the elytra, and holding the signet-emblem of the circle or horizon of the sun between its hind legs. This was a substitute for the scarabæus of carved stone gilded, ordered to be placed on the heart according to the rubrical directions of the 30th chapter.⁷

In opening the stomach, which was so hardened by the bitumen that it required the use of a chisel and fine saw, the interior was found filled with clotted bituminous masses, on detaching one of which a piece of red wax, brilliant and fresh, was found inside. On removing it from the bituminous coating with which it was surrounded, it exhibited the head and shoulders and part of the body of Hapi, the second of

⁶ Lepsius, Todtenbuch, Taf. lvii. In the Ritual of Nebseni, in the British Museum, one of the forty speeches of

Horus to Osiris is, that he has "filled the Eye of Horus with oil."

Lepsius, Todtenbuch, Taf. xvi.

the four genii of the dead, who presided over the north, and to whose care the small intestines have been found to be confided. It was impossible at this period to continue a minute examination of the contents of the stomach; but it was evident that the entrails had been repacked in small packets, and carefully restored through the flank incision

again into the body.

Our next attention was directed to the hands, which exhibited a peculiar claw-like appearance, as if they had been enveloped in gloves or linen wraps; and, on removing one, and cutting through the thick coating of bitumen, in order to see whether any rings remained on the fingers, they were discovered to be provided with silver gloves, each finger being encased in a tube, or finger stall, of silver reaching to the palm of the hand. 8 This was perhaps one of the most interesting discoveries made, as it proves that the custom of securing the nails in this manner against the chance of being torn off or injured when the body was skinned, existed as early as the XXVI. dynasty, and that the use of restoring the entrails in separate packets, each containing a wax genius of the Ament, is of the same age. Under one of the left arms was discovered a rude figure made of barley and clay mixed, wrapped up in bandages of linen, like a mummy.

Our labours had finished for the occasion, and the mummy, with its contents, was consigned to the box in which it had

been brought, and reserved for a future examination.

On the 21st of June, Mr. Arden, Mr. Bonomi, and myself, in company with Mr. Croker, and Mr. Arden, junior, continued our investigations into the mummy at Mr. Arden's house. No new objects of any kind were discovered at the first inspection, but a more careful examination of the contents of the stomach brought to light the remaining packages of the thoracic and abdominal viscera. These were so saturated with asphaltum that they adhered with great tenacity to the pleura, for they had been thrust into the thorax, and it required the aid of a chisel to detach them. In one of these masses, which resembled a cylindrical bag, was found the genius of the East, Kebhsenuf, the fourth of the series, to whom is usually consigned the liver; and in another, the mass of which was broken in two although not opened,

⁸ A finger secured in this manner exists in the British Museum, No. 6732.

was another genius, Tuatmutf.9 The fragments of the genius Amset were not found; they probably existed in another mass, which was removed, but reserved for future scientific examination. A mass resembling the heart was also discovered, but no other objects or idols. denuding the skull of its bandages, the profile of the lady was exposed, and exhibited the usual Egyptian peculiarities —the features delicate, the nose aquiline, the mouth closed, the hair thin, and in short curls,—not black, but of a bright yellow colour, and still adhering to the scalp. The dura mater was found very perfect, and a linen plug still remained in the nose. The eyes of the deceased had been removed, and two others, the tunica albuginea composed of white wax, and the pupils, formed of obsidian, substituted for them. Along the edges of the lower maxilla was also a substance unctuous, and like wax or adipocere. Some of the teeth remained, but tightly imbedded in bitumen or asphalt. On the whole, the mummy was well preserved, and undoubtedly of a class highly esteemed by the Egyptians themselves, but not presenting a type so human as those of the Greek and Roman periods, when less asphalt was employed, and the texture of the muscular frame better preserved. The examination of this mummy tends, I think, to throw considerable doubt on the hypothesis that heat was employed. It is evident that if the whole body had been subjected to sufficient heat to melt the asphalt, it must also have melted the waxen figures of the genii of the dead; while their preservation can only be accounted for by supposing that they were wrapped up with a cold solution of asphalt and some oil, the latter of which has indurated after the slow dessication of two thousand years. On removing some bandages, I accidentally discovered a clue to the age of the mummy; for upon a narrow strip of a fringed cloth about four inches wide, I discovered a line of hieroglyphics traced vertically along the breadth of the bandage, close to the fringe, reading, suten sa or mut Amenartus—"The Princess," or "Queen Mother Amenartas." It did not appear that this inscription necessarily was placed on the bandage when upon the mummy, because it was close under the second inner cartonage, and written on the surface close

theque Nationale, this name is written Tuantmutf, viz. t, the hand; wa, the loop; tu, the hand holding a gift; mut, the vulture; f, the cerastes.

⁹ The reading Siumutef, Smof, Sebmutf, &c. of this genius are all errors. See Bunsen, Egypts. Place, p. 430. On a coffin of one of the concubines (sua) of Amen, named Tentnahrer, in the Biblio-

to the body of the mummy; at the same time, as it had stained a layer of two or three bandages, the probabilities are that it was at least placed upon the mummy when wet. It was, therefore, an approximate clue to the age of the body, and is highly valuable, as affording a fixed point for the criteria of the various peculiarities. As this queen is found with a prænomen, it is evident that she must have had an independent rule; and her epoch is placed, either at the end of the XXV. Æthiopian dynasty, or at the commencement of the XXVI. dynasty. As dynasties generally end with the reigns of women or children, it would appear more probable that she belonged to the XXV. Her name exactly resembles that of AMMEPIS, with a feminine termination, and the gloss Αλθίοψ "the Æthiopian," to whom Syncellus gives a reign of twelve years, and places at the commencement of the XXVI. dynasty. On certain monuments she is called the daughter of the King Ka-shta,2 which adds to the difficulty; for if she is to be received into the XXV. dynasty, that line must be increased by two reigns, and have five kings instead of three, while, if she is assigned to the XXVI. dynasty, she must have been the second, and not the first queen. The only means of explaining it would be by supposing her father to have been an Æthiopian monarch. But both her name and that of her father are distinctly Egyptian, and do not, like those of the XXV. dynasty, exhibit any Æthiopian peculiarities, although the names of Psammetichus and Nekau, like those of Candace, offer the Æthiopian termination in ka. Her reign is placed about 700 B.C. I am well aware how defective these observations are in that portion of the science which it is the province of the surgeon and the chemist to illustrate with the important observations of their respective branches; but as I am likely to have some assistance from specimens and fragments, which Mr. Arden has kindly placed at my disposal, that defect may possibly be supplied; and perhaps, after all, the general facts of anatomy and the analysis of materials are better known than the religious dogmas and mysteries. I have, however, deemed it my duty, while the facts are still fresh in my memory, to record the present imperfect notes. S. BIRCH.

Bunsen, Ægyptens Stelle, Book iii.,
 s. 145, 141, Taf. xi.; Urkundbuch, s. 38.
 Prisse, Revue Archeologique, 1845,

p. 739—40; Mon. Eg., Pl. xxvii., p. 6, is therein accurately copied; Coffin, Brit. Mus., No. 6668.