## III.

NOTES ON CUP-MARKINGS AND INCISED SCULPTURINGS NEAR guerande, Brittany. By James miln, Esq., f.s.a. Scot.

I have the privilege this evening of saying-
1st. A few words on the town and peninsula of Guerande and its antiquities.

2d. Of exhibiting drawings of rocks with sacrificial basins, which prove to be the place where querns had been quarried.

3d. Of exhibiting cup-markings, 24 diagrams, with explanation of their similitude to constellations, and the astronomical features of alignments and dolmens.

4th. Comparison of a few of the markings in tombs in Mexico and Egypt, whose meaning is known, with markings in the dolmens which have not as yet been deciphered.

Guerande (the Grannona in littore Saxonico of some writers, the Guengran of others, i.e., from Grannus = Apollo, and guen, white), was occupied by a Roman tribune, with his cohort, who were driven out in 445 by St Germain d'Auxerre with his Bretons, and retaken in 470 by the Romans, who then held for some time in check the neighbouring Saxon colonies of Pouliguen and Batz, the latter then an island called Alors, and one of the loading ports of the Corbilonum Emporium. The inhabitants of Pouliguen have a Saxon look to this day, and their costumes remind one of Holland and the Fier landimen. The town is accurately described by its name, which is evidently Celtic-the white bay = Pol i guen. The paludiers of Batz are a distinct race, keeping apart from those of Pouliguen, and speaking a different dialect. Their costume is the most picturesque of any in,Brittany.

The.Town of Guerande.-The town of Guerande ( 6749 inhabitants) is situated on the arrondissement of St Nazaire, department of the Loire Inferieure of the French Republic. It forms an excellent resting-place for the artist and the archæologist, where, after studying the antiquities of the town, its history and legends, its varied and picturesque costumes, with the still more varied and curious types of race, best seen on marketduys, they have a good station from which to examine the surrounding
peninsula. Guerande is surrounded with machicolated and crenolated walls, and flanked with towers. Its aspect is at once original, picturesque, and redolent of the Middle Ages. The money derived from the octroi enabled John V., in 1431, to build the walls, which are in a good state of preservation, and on which many masons' marks may be seen. The entrances to the town are by four ports-

| Port Vannetaise on the north. |  |
| :---: | :---: | :---: |
| ", Saillé | south. |
| " St Michel, ", | east. |
| " Bizienne ", | west. |

The Port St Michel is more of a fortress than a mere entrance port, and now does duty as Hotel de Ville.

Church of St Aubins.-The most interesting object of antiquity in the town is the church of St Aubins, with its quaint sculpturings. It has been more than once burned, and is of a mixture of styles. All the later additions are not in keeping with the older portions, which date from the 12 th, 13 th, and 16 th centuries. There is an exterior pulpit on the west centre port, from which the preacher addressed lepers, heretics, \&c., and those not admitted within the church.

Peninsula of Guerande.-But above all, the peninsula of Guerande is a fruitful field for the archæologist. It abounds in megalithic monuments, Roman and Middle Age coins and medals, ancient pottery, situations of Roman manufactories and foundries, indicated by the local names. Teeth of extinct pachyderms are still found in the marshes and salt-pans. Amulets, instruments, and weapons in stone, small nuts long unknown in the country, and pierced at one end, cup-markings on rocks and megalithic monuments, and querns or hand-millstones are of frequent occurrence.

Querns.-On the roadside, and halfway between Guerande and Saillé, there is a highish hill of granite called Cramaguer. On its rocks are numerous hollow basins, with an opening on one side, similar to many others one meets with in Brittany, and which are described as altars with basins to receive the blood of the victim, and having an opening to run it off. But these basins prove to be the hollows left in the rocks by the quarrying of querns or millstones. The sketch No. 1, which I exhibit, represents one of
these hollow basins at Cramaguer. The sketch No. 2 shows one of the querns which had been cut round ready to be raised, but had been abandoned either owing to the grain of the stone running cross, or to the demand for querns having fallen off. The opening at the sidewas evidently for the purpose of introducing wedges below the quern to raise it up. There are some rocks also between Guerande and St Sebastian, where similar basins are in the rocks, and where also one or two querns had been cut round all ready for lifting, but had been left, and fortunately so, for they show how the ancient Gaulois manufactured his quern.

Cup-markings.-In speaking of the cup-markings near and about Guerande, I have much pleasure in mentioning the name of M. Muterse, industrial chemist of Guerande, and an able archæologist, to whom I am indebted for much information as to the peninsula, and for the twenty-four diagrams of cup-markings now before you, all drawn to scales as noted of 2 centimetres and 10 centimetres to the metre. The originals of these were made by. M. Muterse, aided by M. Furstenan. I have compared the diagrams of the cup-markings at Mane Scoul, and at Butte d'Herman, with the rocks, and can testify that they are accurately drawn. In Nos. 1, 5,8 , and 13 of the diagrams, you see a rude likeness to the constellation Ursa Major, such a production as one unskilled in drawing would make. In Nos. 5,8 , and 13 , you see a double star in the tail of the Bear. Now the second star in the tail of the Bear is a double star called "Mizar," and its companion "Alcor," of between the fifth and sixth magnitude, is at a distance of $11^{\prime} 14^{\prime \prime}$ from Mizar, the brightness of which appears to eclipse it. Arago mentions that the Arabs call it Saidak, -that is to say, the proof, because it serves to prove failing sight. Any opera-glass, however, will resolve it. Diagram No. 3 resembles Orion's belt. The other diagrams on examination show a rude resemblance to other constellations, and to rude drawings of planetary systems. There is also an indication of an astronomical bearing in the orientation of the alignments of Carnac and of Stonehenge in the lines of the solstices and of the equinox.

Dolmens of Kercado and Mane Gorion.-Drawings and sections of the dolmens of Kercado and Mane Gorion are now before you, and show the curious markings. in the interior of these dolmens. During the past summer an admiral of the French navy made an interesting experiment in the dolmen of Kercado, by fitting. a gnomon in the
circular hole in the roof. The shadow of this indicated time on the divisional markings on the walls of the chamber, whilst the divisional markings which are repeated on one of the supports of the entrance-passage gave no time. The admiral suggested that the one represents time present, and the other time past. The drawings and sections of Mane Gorion represent the same divisional markings on one of the supports of the chamber, and the divisional markings are also repeated on one of the supports of the entering passage.

I need not tell you, gentlemen, of the great similarity in the objects found in the dolmens of Brittany, in the tombs of Mexico, and indeed in the objects of the stone age found all over the world. Even the Japanese are making researches into the stone remains of their country, and are finding similar objects there. Perhaps, however, the sketches which are now exhibited of objects found in the dolmens of Brittany, of objects in the Mexican collection "Boban" now at Paris, of objects found at Nineveh, \&c., may prove worth examining, as they fairly represent this similarity. The meaning of many of the Mexican, Egyptian, and other symbols are known, and the comparison of such with similar markings on the dolmens points out that these are commemorative dates, military and civil decorations and ornaments. Two years ago, when visiting the Pierres Plat at Locmariaker, the sculpturings there reminded me of the tattooing on the forehead of a New Zealand chief I had known in 1837-what might have been termed his blazon.

On comparing this drawing of one of the capitals in the interior of the old chapel of St Marcelin, in the Commune des Bains near Redon, and this drawing of the sculpturing on the Pierres Plat, Locmariaker, with the drawing of a plaster cast from Thebes in the Louvre at Paris, we see a marked resemblance in many of the symbols. I am indebted to Professor Maspero for the translation of the cast, viz., "Ran" (the man's name, " possessor of 1245 buffaloes. Ran, possessor of 1135 deer." The reading of this is after the Chinese form, perpendicular, and from right to left. Mr Maspero holds that the Egyptian numeral for one hundred was derived from the lotus leaf. The old cursive form of Chinese for a hundred is of nearly the same form, and is held by Sinologues to have been also derived from the lotus leaf.

Mexican Idol.-This idol, which is a rude representation of a monkey
sculptured in diorite, shows the dolmen spiral marking to be a military decoration. The drawing of this is of the full size of the original. The description in the Catalogue Boban is-
"Stone monkey found in the valley of Mexico. Monkey in Aztec= Oqui-choco-matli, stone $=$ thetl. This stone, 43 centimetres high, is very curious. The animal carries on his neck ornaments of worked shells, with pendants of the same."

The drawing No. 283 gives the interpretation of these ormaments. The spiral decoration is formed of the section of the shell Tasciolaria scolymus, and the pendants and other ornaments are formed of the shells Ovicula and Oliva volutella. These were found at Arcapozalca, valley of Mexico, which means the place of the anthills. Shell in Aztec = epta pal catl. The terra cotta idols in the two upper corners and in the left lower corner represent warriors shown by the mask over the face (profile traced in pencil). These all carry the same spiral decoration on the breast.

The plaster-cast on the table is taken from a very remarkable antique sculpture in obsidian, No. 3 of the collection Boban. One hundred pounds has been offered, but refused for this. I translate from the cata-logue-
"Square in Aztec, thaxa-tectli; Obsidian, itzli ; Sculpture, quanhtla cuicui-litzl. Plate of obsidian 21 centimetres long, 16 centimetres broad, and 5 centimetres thick, on which are found graven the Mexican symbol Acatl, which signifies a cane or reed. Four circles are engraved at the corner, and one at the bottom of the plate. It is certainly a commemorative stone of the date of some great event which had happened in the fourth year of Acatl. This date might probably be found on consulting the Mexican work entitled, 'Descripcion Historica y cronologica de los. dos Pedros. Par Don Antonio de Leon y Gama.'"

The symbol Acatl, I may remark, was one of the signs of the Mexican zodiac. Don Antonio de Leon y Gama, in his work on the sculptured stone representing the Mexican zodiac (a cast of which is in the Louvre of Paris), states that 10,000 Indians were employed in bringing the stone in from the country and in rough hewing it, when thirty sculptors with stone axes executed the carving in a short space of time.

The drawing 5 is copied from the catalogue of the Museum of Mexico. I translate from:" Mexico y sus Aldredores,". V. Debray, Mexico, 1869.
"Stone in serpentine 89 centimetres long, 60 broad, and 30 deep, cut in alto relievo. This is a commemorative inscription of the dedication of the great temple of Mexico, which existed at the time of the conquest of that city. The upper square represents a libation of blood, offered to Fire by the kings Tisa and Ahuizotl, seventh aind eighth monarchs of Mexico, who made the foundation. On the same, and between the effigies of the two personages, one sees shortened and in small dimensions, the same figure engraved in the lower square, with 7 dots or cup-holes placed horizontally. This group points out the day of the dedication, and that of the lower square composed of the same symbol Acatl placed between two perpendicular and parallel lines. Each of the four dots or circles designed the year of the same solemnity, noted according to the Mexican style, in the day Chicome Acatl ( 7 canes), of the year Chiculi Acatl (8 canes), corresponding to the 19th day of February 1847. This precious monument of our antiquities was most probably fixed in the most visible part of the great temple, in the same way in which we place commemorative tablets."

The drawing is copied from No. 42 of the catalogue of the Museum of Mexico. "Cylinder in basalt cut in form of a bundle of reeds in the manner of the Roman fasces. In the square in the middle is sculptured in relief the chronological symbol Acatl, the same as in No. 5, with the sole difference of the numeral, which here is 2, indicating thus in the year Ome Acatl, in which was celebrated the cyclical feast of the renovation of fire every $52 d$ year, the period which composed the Mexican heaven. Length 61 centimetres, breadth 26 centimetres."

