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ANCIENT MEXICAN HERALDRY.

BY AGNES CRANE.

THERE can be no more striking instance of separate evolutions on the same plane of thought in different grades of culture than the independent development of a system of heraldry, or "armory" as it should be rightly called, in the western hemisphere by the aborigines of ancient Mexico long anterior to the epoch of the Spanish Conquest in 1521. It was based, like the heraldic systems of Europe, on personal distinction in battle, which seems to have been originally the sole source of ennoblement among all people, and possessed the same intent to blazon forth personal exploits and record individual achievements.

It may seem a strange anomaly to refer to the "coat armour" of painted warriors not overburdened with clothing, adorned with labrets, nose-crescents of gold and other barbaric ornaments, whose personal prowess in warfare was exerted to capture their enemies alive in order that they might be offered as living sacrifices to the gods of the victor in the combat. Yet we have the authority of Logan, the historian of the "Scottish Gael," for the statement that so late as 1644 the Highlanders under Montrose fought divested of most of their clothing at the battle of Tippermuir. It is equally true that the war-shields and gala-shields of the ancient Mexican warriors were "charged," in many instances, with "animate designs" and various emblems recording the gallant deeds of arms, of the individuals who bore them, and the distinctions and "augmentations" granted them in recognition thereof by their so-called "emperor" or chief-priestly ruler. In others, again, they carried phonetic symbols rudely expressing the name and rank of the owner, like the "canting arms" or *armes parlantes* which formed the larger proportion of the early coats in European heraldry with as great an effect as the spear in the much discussed coat of Shakespeare, the padlocked heart of the Lockharts, the four emblazoned hands of the Quatermaines, the three cocks of Cockaigne, and the whelk shells of Shelley. A similar canting-shield was carried by the leader of the Tlaxcallan forces which accompanied Cortes on his way to Tetzco. It

is depicted in a native chronicle as exhibiting a monstrous face with eyes borne on the palms of severed hands and belongs evidently to the same category. The name of this Tlaxcallan ruler, Maxixcatl, is expressed in the same pictorial record by the hieroglyph of an eye on the palm of a hand, and the symbol for water which yields in the Aztec or Nahuatl language the elements *ma*, *ix*, *atl* from *maïtl*, hand; *ixtli*, eye; and *atl*, water. It is obvious that the elements *maix* are conveyed by the eyes on the palms of the severed hands on the shield to which we refer.

Much that is both interesting and suggestive on this subject will be found in the remarkable memoir "On Ancient Mexican Shields," from which this example is taken, contributed by Mrs. Zelia Nuttall, special assistant in Mexican archæology of the Peabody Museum of Cambridge, Massachusetts, to a recent issue of the "Internationales Archiv für Ethnographie," Vol. V., Part I., 1892. It gives full details with colored illustrations of the heraldic devices on war-shields and gala-shields borne in religious dances as figured in various native MSS. and Codices, described in the Spanish inventories, or depicted on ancient Mexican shields still preserved in the museums of Mexico City, Vienna, Stuttgart, London, and at Castle Ambras in the Tyrol. The supplemental accounts derived from native sources and old Spanish chronicles of the system of rewards granted by the chief ruler to successful Mexican braves in savage warfare are of special interest and value.

This system was, to say the least, peculiar. The neophyte went forth to battle clad in white raiment, with a blank shield. On capturing an enemy alive he was granted the privilege of painting his body yellow, his face red and his temples yellow, and the right to wear a colored uniform and a shield to match his war-paint. The Mexican war-shield was round, like the Highland Targe

"Whose brazen studs and tough bull hide
Had death so often dashed aside,"

and described by bards more ancient than Sir Walter Scott as painted red, spotted, varied, or chequered. In Old Mexico the capture of two foes was rewarded with a more elaborate costume, a gold *yacumetz* or nose-crescent and a shield decorated with feather pellets. The warrior who took three prisoners alive received a wooden shield with a border of blue, the royal color, or one displaying parti-colored stripes with a fringe attached to it. Further captures were rewarded with ornaments of gold, or precious stones, and the images of these quartered on the shields "in augmentation" record the nose-crescents and labrets won and worn by those who had performed such signal deeds of valor.¹ One shield bears four, and another ten of these designs which present some resemblance to the thirty-seven crescent-shaped ornaments of beaten gold adorning the magnificent feather headdress of the time of Montezuma described by Mrs. Nuttall in the first number of the first volume of "The Peabody Museum Papers." They recall, also, the buckles considered by recent authorities on European heraldry as a military badge, one of which is actually borne on the shield of the Pelhams, Earls of Chichester, to commemorate the ancestral share in the capture of King John of France at Poitiers. In the same manner a negro's head is quartered on the family shield of a "highly well-born" German family as a record that an ancestor took prisoner a black princess during one of the crusades.

¹ It would be interesting to know if the additional labrets and nose-crescents were quartered on the shield because of the personal inconvenience of wearing more than one of these distinctions.

Thus, simultaneously with the knights of old in Europe, the warriors of ancient Mexico "obtruded the blazon of their exploits on their company." Mrs. Nuttall gives the Aztec word *totopalitōa* as the equivalent of "to blazon forth or proclaim one's own praise," and states that the Nahuatl word for gala-shields was *totopchimalli*. It is further evident from her researches that the ancient Mexican shields proclaimed their owner's achievements as effectually as the "coat of seas strown with palm-clad isles" granted to the great navigator, Columbus, the towns with spires and belfries "of the conquering Cortes, and the "augmentations" and "supporters" granted to the father and all the descendants of the African explorer, Captain John Speke — running water superinscribed "Nile," with a crocodile for crest, and a crocodile for dexter and hippopotamns as sinister supporters. As a modern example of recognition of noble achievements in the less adventurous paths of science we may cite the bizarre shield of Sir John Herschel emblazoned with the astronomical sign of the planet Uranus, "a forty-foot reflector," observer's house, and other paraphernalia. It may be added that the gruesome emblems portrayed on the shields borne by the chief-priestly warriors of the Aztecs were as significant of official functions as the mitre so often quartered in our episcopal arms.

Many of the heraldic emblems of the ancient Mexicans recall those of Europe — "the eagle's claw on an azure field borne by the sub-chiefs known as the "daring eagles," blue serpents on a red field, the tiger's leg shield the insignia of an order of chivalry carried only by the daring ocelotl or tigers a "crack corps" clad in ocelotl skins. There is the death's head shield of the "emperor" Tizoc, the allusive feather-pellet shield of the war-god, Huitzilopochtli, bearing reference to his mythical origin from a tuft of humming-birds' feathers; the shell on that of the hero-god, Quetzalcoatl, which reminds one of the three escallops quartered on the coat of Darwin. The cross, often quartered on the shield of Quetzalcoatl, was symbolical to the native mind of winds blowing from the four quarters of heaven. In Mexico, we are told, the gods were represented with emblematic shields. The rain-god, Tlaloc, with a water-lily on a green field, the death goddess with cross-bones on a red field. This is not altogether surprising for, in many instances, they were the deified chief-priests and supreme war-lords of bygone generations. In this connection we may recall the fact that coat-armor was assigned to the Saviour and the twenty six quarterings emblazoned on an escutcheon in Mayence cathedral, and also the coats "granted to ennoble" the disciples by European heralds. (1.)

There is Mr. H. H. Bancroft's authority for the statement that Montezuma bore into battle "a banner with the strange device" of an eagle with beak and claws of gold swallowing a serpent, on an azure field. This was perhaps the first instance of "spread eagleism" on the continent of America. It was emblematic of the myth concerning the foundation of the pueblo of Tenochtitlan in the valley of Mexico, and the design still forms the national arms of the modern republic of Mexico.

Animal designs are of frequent occurrence, and, like many of those employed by European heralds, are just as great a puzzle to the bewildered zoologist as the live lions at "the Zoo" to that sceptical official of the Herald's College who said he had "tricked" too many lions in his day not to know the real animal when he saw it. One of the most remarkable of the Mexican emblems is that of the blue monster outlined in strips of beaten gold, rampant on a rose-red field of

the beautiful feathers of the roseate spoon-bill (*Platalea ajaja*), the use of which was restricted to the decoration of idols and supreme rulers. This fine shield was rediscovered by Mrs. Zelia Nuttall last summer, preserved, with other objects, in a case labelled "Transatlantic and Oriental curiosities," in the castle of Ambras, near Innsbruck, in Tyrol, where it has found a home for the last three centuries. This historical shield has been clearly identified by her as that described in the Spanish Inventory of 1596, which formerly belonged to the Archduke Ferdinand of Tyrol, and as one of the shields presented by Cortes to the Emperor Charles V. It bears traces of the former existence of a fringe of the long tail-feathers of the Quetzal, the use of which was also restricted to supreme rulers in ancient Mexico. The device, which is accompanied by the native picture signs for fire and water, may represent either the blue ocelotl or the Ahuizotl, a fabulous aquatic monster dreaded by the Mexicans. It bears a striking resemblance to the "heraldic wolf" of the twelfth and thirteenth centuries. The shield is certainly a gala-shield, and could only have been used by a war-chief of the highest rank. It is the best preserved example extant, and, to quote the exact words of our authority, is "the only one possessing a valid, if shadowy claim, to be that shield of Montezuma, which documentary evidence proves to have once formed part of the famous collection of historical armor of the Archduke Ferdinand, nephew of Charles the Fifth."

Another shield of wood, inlaid with turquoise and shell mosaic, was also found at Ambras. Since attention was called thereto by a communication addressed by Mrs. Nuttall to the Anthropological Society of Berlin (*Zeitschrift für Ethnologie*, 1891, p. 485), this valuable relic has been removed to the Imperial Ethnographical Museum of Vienna, which also contains the historical piece of ancient Mexican feather-work which Mrs. Nuttall has elsewhere shown to be a royal diadem or head-dress of the time of Montezuma, although it was originally described as a standard or banner by the late Professor F. von Hochstetter, who first recognized its value and ensured its preservation.

The centre or boss of a second specimen of an inlaid turquoise mosaic shield is exhibited in the Christy collection in the British Museum, where it is named, on what authority is not known, a Mexican calendar; but Mrs. Nuttall is enabled to state from personal examination that it is not a calendar, and bears none of the symbols of the Mexican year. In all, Mrs. Nuttall's industry and acumen have resulted in the accumulation of figures or descriptions of hundreds of Mexican shields from native and Spanish sources. Not more than six specimens are actually known to be preserved in the museums of the world. Her researches throw fresh light on the status of the ancient Mexicans and their somewhat bizarre semi-civilization.

Colonel Garrick Mallery, in his interesting work on "The Pictographs of the American Indians," reproduces native representations of North American Indian chieftains on the "War Path," carrying shields bearing the *totem* of the tribe, a very useful distinction when different tribes unite in raiding, as we know to be still the custom. We believe, however, that Mrs. Nuttall's memoir on "Ancient Mexican Shields" records the first evidence of heraldic emblems borne in the western hemisphere "as boastful records of individual achievements." We are not aware that any evidence has been discovered of the hereditary use of heraldic devices in ancient Mexico, although there are frequent references in her various and important publications to native

genealogies accompanied by portraits of *pilhua* = the heads or founders of large families as found recorded in native MSS. It is more probable that in a state of semi-barbarism individuals had to earn and win their own distinctions. No hereditary surnames were in use among the Mexicans anterior to the Spanish conquest. It is stated in a recent treatise on European Heraldry¹ that some of the peasants of the Jura Mountains did not possess them so late as the Election of 1789. We learn from the same authorities that surnames did not come into general use in Europe until after the second crusade of 1147, which gave such an impetus to the bearing of coat armor and heraldic insignia in general. In this regard it is interesting to note that it was to the intertribal wars waged in Mexico solely for the purpose of securing human victims for religious sacrifices that we can trace the development of Mexican heraldry. The independent invention and use of heraldic insignia in the New World is but another proof of the truth of the dictum that human nature is very much alike all the world over.

Brighton, England.

GAY HEAD.

BY P. R. UHLER.

THE steady flow of modern travel has opened an easy way to the delightful island of Martha's Vineyard, where the socially inclined may enjoy the advantages of summer schools of science, or participate in the exercises of the camp-meeting within spacious and airy pavilions. Here the artist finds a prospect of varied color, with long vistas of cliff and sea and sky standing forth in surpassing loveliness and inviting an effort to place on canvas his richest and brightest tints.

To the student of nature, however, there is access to an ever-increasing store of facts. The more he investigates the structure of the region, with its assemblage of creatures and plants, or views the struggles of atmosphere, land, and ocean to maintain an equilibrium, the more he finds himself beset by perplexing questions, which will not be answered at his bidding. A riddle, as yet but partly solved, lies involved in that wonderful piece of earthy structure called Gay Head. Here, at the western extremity of the island rests a huge pile of sand, rock, and clay, more than one hundred feet high, tinted with numerous vivid colors, which have been the wonder and delight of the voyager ever since the discovery of the country. The sparse settlement of the island has as yet produced but a short chapter of the history of its people; but the record of nature's changes and disturbances, which have affected the land and sea, would fill large volumes.

To one series of these changes, belonging to its geology, we would now direct attention. The greater part of the island shows evidences of having been submerged five times beneath the waters. At each emergence from the water, an increased thickness was given to the body of the land, so that at the beginning of the last glacial period it stood on the western side at a level of not less than two hundred feet above the surface of the tide.

At the close of that period and chiefly remaining to the present time, a deep deposit of fine sand, boulders, gravel, and broken stones, from ten to twenty-five feet in thickness, covered the upper slope of the ridge. The Potomac Clay, which forms the inner and also the lowest descending division of the deposits resting here, rises like a central core to near the summit of this hill. As most of the other members below the glacial deposits are either absent from, or only feebly represented on, the upper surface of the clay, a thin bed of sand and other glacial material forms the superficial covering. On both slopes of this ridge, the west and the east, the column of geological formations is present, although not in fully unbroken continuity, the Cretaceous Green-Sand Marl having not been found on the eastern slope by the

writer. On this side, however, the Raritan Formation, previously defined in Maryland as the Alternate Clay-Sand group, displays an exceedingly fine exposure, with the strata and laminated layers in original order. Here, also, it is enriched with the same plant fossils and lignitic wood so characteristic of these beds on the Raritan, Severn, Magothy, and other rivers of New Jersey and Maryland.

No evidences of mountain-folding appear in any part of the elevated division of the land. The underlying member which descends deep below tide, is the Variegated Potomac Clay, and this forms the foundation for all the other formations in their usual order of superposition.

Deep denudation and erosion followed the completion of the Potomac Clay, and it was cut to below the line of present low tide at the localities now occupied by Menemsha, Squibnocket and Nashaquitsa ponds. The broken surface of this clay and the presence of the Raritan and other beds above it on the low hills of Menemsha Bight, show how deeply the Potomac formation was here degraded before the next succeeding formation was laid down. Consequently in early Cretaceous time a high plateau of the clay was carved into sloping reliefs which had their most depressed surfaces spreading away towards the east and south.

The steep side of the island is on the west, and here it is that the modern surf has cut away large tracts of the ancient bluff. On the Gay Head division the sea has been digging away the cliffs at the rate, it is said, of sixteen to twenty feet in a year. The stretch of boulders called the Devil's Bridge, lying at a distance of fully half a mile from the present beach, shows where the outer border of the bluff formerly stood. The Potomac Clay not only extends out that far at the bottom of this shallow shelf of Vineyard Sound, but we are told that it sticks to the anchor in the channel which now runs on a course more than two miles distant from the present beach. A searching survey ought to show that this clay underlies the Elizabeth Islands and stretching away south-west passes under the borders of the mainland of Massachusetts and Rhode Island, and from thence under Long Island and Staten Island to beneath the lower clays of New Jersey.

The section as it is now exposed in the less-disturbed bluffs of Gay Head shows the Variegated Clay near the beach in strata or arched beds from three to more than ninety feet in thickness. The undisturbed upper part of this member is sometimes a whitish or red clay, and is often more or less mixed with sand.

Immediately above this, but not on the summit of the clay, rests the group for which we now offer the name Raritan Formation, from the river on the shores of which it is so extensively exposed. It consists of a few feet of brown, coarse sand at base, which is sometimes indurated into a moderately coherent sandstone. Above this is a bed, two or three feet thick, of white sand locally streaked with white clay. Over this the laminated sands, black and gray, charged with lignite, and parted with fine white sand, rise up into thin layers of a paler clay which alternates with seams of the white sand. This clay appears more massive in some sections of the bluffs, and occasionally forms a homogeneous stratum, from three to five feet thick. Next above this is a most conspicuous stratum of disintegrated granite, which is a kind of coarse rock-flour, white on the weathered surface, but gray in the covered mass. It forms a bed ranging from ten to more than fifteen feet in thickness. This forms the superior member of the group, while the whole Raritan Formation, as here recognized, reaches a maximum thickness of about fifty feet.

Next higher in the bluffs rest the ferruginated remnants of the Cretaceous Green-Sand Marl. The great body of this deposit has slipped down or been overthrown upon the steep side of the cliff facing Vineyard Sound. It appears in three separate piles, stretching from near the summit of the projecting buttresses down to the beach. The only part of it now remaining near the line of its original position is represented by a few inches of altered brown sand, in patches. These are the vestiges of the thin edge of the stratum which stretched out towards the sound, and which terminated in a bed eight to ten feet thick in modern time. Eighty or more feet outwards it is a thick body of dark-green

¹ A Treatise on Heraldry: British and Foreign. By John Woodward, F.S.A., and the late George Burnett, LL.D. (Lyon King at Arms). W. & K. Johnston, Edinburgh, 1891.