

by the exhibitions of the circus. The perpetual recurrence of ceremonies, in which the people took part, associated religion with their most intimate concerns, and spread the gloom of superstition over the domestic hearth, until the character of the nation wore a grave and even melancholy aspect, which belongs to their descendants at the present day. The influence of the priesthood, of course, became unbounded. The sovereign thought himself honored by being permitted to assist in the services of the temple. Far from limiting the authority of the priests to spiritual matters, he often surrendered his opinion to theirs, where they were least competent to give it. It was their opposition that prevented the final capitulation which would have saved the capital. The whole nation, from the peasant to the prince, bowed their necks to the worst kind of tyranny, that of a blind fanaticism.

In reflecting on the revolting usages recorded in the preceding pages, one finds it difficult to reconcile their existence with any thing like a regular form of government, or an advance in civilization. Yet the Mexicans had many claims to the character of a civilized community. One may, perhaps, better understand the anomaly, by reflecting on the condition of some of the most polished countries in Europe, in the sixteenth century, after the establishment of the modern Inquisition; an institution, which yearly destroyed its thousands, by a death more painful than the Aztec sacrifices; which armed the hand of brother against brother, and, setting its

burning seal upon the lip, did more to stay the march of improvement than any other scheme ever devised by human cunning.

Human sacrifice, however cruel, has nothing in it degrading to its victim. It may be rather said to ennoble him by devoting him to the gods. Although so terrible with the Aztecs, it was sometimes voluntarily embraced by them, as the most glorious death, and one that opened a sure passage into paradise.³³ The Inquisition, on the other hand, branded its victims with infamy in this world, and consigned them to everlasting perdition in the next.

One detestable feature of the Aztec superstition, however, sunk it far below the Christian. This was its cannibalism; though, in truth, the Mexicans were not cannibals, in the coarsest acceptation of the term. They did not feed on human flesh merely to gratify a brutish appetite, but in obedience to their religion. Their repasts were made of the victims whose blood had been poured out on the altar of sacrifice. This is a distinction worthy of notice.³⁴ Still, cannibalism, under any form, or whatever sanction, cannot but have a fatal influence on the nation

³³ Rel. d' un gent., ap. Ramusio, tom. III. fol. 307.

Among other instances, is that of Chimalpopoca, third king of Mexico, who doomed himself, with a number of his lords, to this death, to wipe off an indignity offered him by a brother monarch. (Torquemada, Monarch. Ind., lib. 2, cap.

28.) This was the law of honor with the Aztecs.

³⁴ Voltaire, doubtless, intends this, when he says, "Ils n'étaient point anthropophages, comme un très-petit nombre de peuplades Américaines." (Essai sur les Mœurs, chap. 147.)

addicted to it. It suggests ideas so loathsome, so degrading to man, to his spiritual and immortal nature, that it is impossible the people who practise it should make any great progress in moral or intellectual culture. The Mexicans furnish no exception to this remark. The civilization, which they possessed, descended from the Toltecs, a race who never stained their altars, still less their banquets, with the blood of man. All that deserved the name of science in Mexico came from this source; and the crumbling ruins of edifices, attributed to them, still extant in various parts of New Spain, show a decided superiority in their architecture over that of the later races of Anahuac. It is true, the Mexicans made great proficiency in many of the social and mechanic arts, in that material culture, — if I may so call it, — the natural growth of increasing opulence, which ministers to the gratification of the senses. In purely intellectual progress, they were behind the Tezcucans, whose wise sovereigns came into the abominable rites of their neighbours with reluctance, and practised them on a much more moderate scale.³⁵

In this state of things, it was beneficently ordered by Providence that the land should be delivered over to another race, who would rescue it from the brutish superstitions that daily extended wider and wider, with extent of empire.³⁶ The debasing in-

³⁵ Ixtlilxochitl, *Hist. Chich.*, character engendered by their sanguinary rites greatly facilitated MS., cap. 45, et alibi.

³⁶ No doubt the ferocity of their conquests. Machiavelli at-

stitutions of the Aztecs furnish the best apology for their conquest. It is true, the conquerors brought along with them the Inquisition. But they also brought Christianity, whose benign radiance would still survive, when the fierce flames of fanaticism should be extinguished; dispelling those dark forms of horror which had so long brooded over the fair regions of Anahuac.

tributes to a similar cause, in part, contains some ingenious reflections — much more ingenious than the military successes of the Romans. (Discorsi sopra T. Livio, lib. 2, cap. 2.) The same chapter candid — on the opposite tendencies of Christianity.

The most important authority in the preceding chapter, and, indeed, wherever the Aztec religion is concerned, is Bernardino de Sahagun, a Franciscan friar, contemporary with the Conquest. His great work, *Historia Universal de Nueva España*, has been recently printed for the first time. The circumstances attending its compilation and subsequent fate form one of the most remarkable passages in literary history.

Sahagun was born in a place of the same name, in old Spain. He was educated at Salamanca, and, having taken the vows of St. Francis, came over as a missionary to Mexico in the year 1529. Here he distinguished himself by his zeal, the purity of his life, and his unwearied exertions to spread the great truths of religion among the natives. He was the guardian of several conventual houses, successively, until he relinquished these cares, that he might devote himself more unreservedly to the business of preaching, and of compiling various works designed to illustrate the antiquities of the Aztecs. For these literary labors he found some facilities in the situation which he continued to occupy, of reader, or lecturer, in the College of Santa Cruz, in the capital.

The "Universal History" was concocted in a singular manner. In order to secure to it the greatest possible authority, he passed some years in a Tezcucan town, where he conferred daily with a number of respectable natives unacquainted with Castilian. He propounded to them queries, which they, after deliberation, answered in their usual

method of writing, by hieroglyphical paintings. These he submitted to other natives, who had been educated under his own eye in the college of Santa Cruz; and the latter, after a consultation among themselves, gave a written version, in the Mexican tongue, of the hieroglyphics. This process he repeated in another place, in some part of Mexico, and subjected the whole to a still further revision by a third body in another quarter. He finally arranged the combined results into a regular history, in the form it now bears; composing it in the Mexican language, which he could both write and speak with great accuracy and elegance, — greater, indeed, than any Spaniard of the time.

The work presented a mass of curious information, that attracted much attention among his brethren. But they feared its influence in keeping alive in the natives a too vivid reminiscence of the very superstitions which it was the great object of the Christian clergy to eradicate. Sahagun had views more liberal than those of his order, whose blind zeal would willingly have annihilated every monument of art and human ingenuity, which had not been produced under the influence of Christianity. They refused to allow him the necessary aid to transcribe his papers, which he had been so many years in preparing, under the pretext that the expense was too great for their order to incur. This occasioned a further delay of several years. What was worse, his provincial got possession of his manuscripts, which were soon scattered among the different religious houses in the country.

In this forlorn state of his affairs, Sahagun drew up a brief statement of the nature and contents of his work, and forwarded it to Madrid. It fell into the hands of Don Juan de Ovando, president of the Council for the Indies, who was so much interested in it, that he ordered the manuscripts to be restored to their author, with the request that he would at once set about translating them into Castilian. This was accordingly done. His papers were recovered, though not without the menace of ecclesiastical censures; and the octogenarian author began the work of translation from the Mexican, in which they had been originally written by him thirty years before. He had the satisfaction to complete the task, arranging the Spanish version in a parallel column with the original, and adding a vocabulary, explaining the difficult Aztec terms and phrases; while the text was supported by the numerous paintings on which it was founded. In this form, making two bulky volumes in folio, it was sent to Madrid. There seemed now to be no further reason for postponing its publication, the importance of which could not be doubted. But from this moment it disappears; and we hear nothing further of it, for more than two centuries, except only as a valuable work, which had once existed, and

was probably buried in some one of the numerous cemeteries of learning in which Spain abounds.

At length, towards the close of the last century, the indefatigable Muñoz succeeded in disinterring the long lost manuscript from the place tradition had assigned to it, — the library of a convent at Tolosa, in Navarre, the northern extremity of Spain. With his usual ardor, he transcribed the whole work with his own hands, and added it to the inestimable collection, of which, alas! he was destined not to reap the full benefit himself. From this transcript Lord Kingsborough was enabled to procure the copy which was published in 1830, in the sixth volume of his magnificent compilation. In it he expresses an honest satisfaction at being the first to give Sahagun's work to the world. But in this supposition he was mistaken. The very year preceding, an edition of it, with annotations, appeared in Mexico, in three volumes 8vo. It was prepared by Bustamante, — a scholar to whose editorial activity his country is largely indebted, — from a copy of the Muñoz manuscript which came into his possession. Thus this remarkable work, which was denied the honors of the press during the author's lifetime, after passing into oblivion, reappeared, at the distance of nearly three centuries, not in his own country, but in foreign lands widely remote from each other, and that, almost simultaneously. The story is extraordinary, though unhappily not so extraordinary in Spain as it would be elsewhere.

Sahagun divided his history into twelve books. The first eleven are occupied with the social institutions of Mexico, and the last with the Conquest. On the religion of the country he is particularly full. His great object evidently was, to give a clear view of its mythology, and of the burdensome ritual which belonged to it. Religion entered so intimately into the most private concerns and usages of the Aztecs, that Sahagun's work must be a text-book for every student of their antiquities. Torquemada availed himself of a manuscript copy, which fell into his hands before it was sent to Spain, to enrich his own pages, — a circumstance more fortunate for his readers than for Sahagun's reputation, whose work, now that it is published, loses much of the originality and interest which would otherwise attach to it. In one respect it is invaluable; as presenting a complete collection of the various forms of prayer, accommodated to every possible emergency, in use by the Mexicans. They are often clothed in dignified and beautiful language, showing, that sublime speculative tenets are quite compatible with the most degrading practices of superstition. It is much to be regretted that we have not the eighteen hymns, inserted by the author in his book, which would have particular interest, as the only specimen of devotional poetry preserved of the Aztecs. The hieroglyphical

paintings, which accompanied the text, are also missing. If they have escaped the hands of fanaticism, both may reappear at some future day.

Sahagun produced several other works, of a religious or philological character. Some of these were voluminous, but none have been printed. He lived to a very advanced age, closing a life of activity and usefulness, in 1590, in the capital of Mexico. His remains were followed to the tomb by a numerous concourse of his own countrymen, and of the natives, who lamented in him the loss of unaffected piety, benevolence, and learning.

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JUNTA DE ANDALUCIA

CHAPTER IV.

MEXICAN HIEROGLYPHICS. — MANUSCRIPTS. — ARITHMETIC. —
CHRONOLOGY. — ASTRONOMY.

It is a relief to turn from the gloomy pages of the preceding chapter, to a brighter side of the picture, and to contemplate the same nation in its generous struggle to raise itself from a state of barbarism, and to take a positive rank in the scale of civilization. It is not the less interesting, that these efforts were made on an entirely new theatre of action, apart from those influences that operate in the Old World; the inhabitants of which, forming one great brotherhood of nations, are knit together by sympathies, that make the faintest spark of knowledge, struck out in one quarter, spread gradually wider and wider, until it has diffused a cheering light over the remotest. It is curious to observe the human mind, in this new position, conforming to the same laws as on the ancient continent, and taking a similar direction in its first inquiries after truth, — so similar, indeed, as, although not warranting, perhaps, the idea of imitation, to suggest, at least, that of a common origin.

In the eastern hemisphere, we find some nations, as the Greeks, for instance, early smitten with such a love of the beautiful as to be unwilling to dispense

with it, even in the graver productions of science; and other nations, again, proposing a severer end to themselves, to which even imagination and elegant art were made subservient. The productions of such a people must be criticized, not by the ordinary rules of taste, but by their adaptation to the peculiar end for which they were designed. Such were the Egyptians in the Old World,¹ and the Mexicans in the New. We have already had occasion to notice the resemblance borne by the latter nation to the former in their religious economy. We shall be more struck with it in their scientific culture, especially their hieroglyphical writing and their astronomy.

To describe actions and events by delineating visible objects seems to be a natural suggestion, and is practised, after a certain fashion, by the rudest savages. The North American Indian carves an arrow on the bark of trees to show his followers the direction of his march, and some other sign to show the success of his expeditions. But to paint intelligibly a consecutive series of these actions—forming what Warburton has happily called *picture-writing*²—re-

¹ "An Egyptian temple," says Denon, strikingly, "is an open volume, in which the teachings of science, morality, and the arts are recorded. Every thing seems to speak one and the same language, and breathes one and the same spirit." The passage is cited by Heeren, *Hist. Res.*, vol. V. p. 178.

² *Divine Legation*, ap. *Works*, (London, 1811,) vol. IV. b. 4, sec. 4.

The bishop of Gloucester, in his comparison of the various hieroglyphical systems of the world, shows his characteristic sagacity and boldness by announcing opinions little credited then, though since established. He affirmed the existence of an Egyptian alphabet, but was not aware of the phonetic property of hieroglyphics,—the great literary discovery of our age.

quires a combination of ideas, that amounts to a positively intellectual effort. Yet further, when the object of the painter, instead of being limited to the present, is, to penetrate the past, and to gather from its dark recesses lessons of instruction for coming generations, we see the dawnings of a literary culture, — and recognise the proof of a decided civilization in the attempt itself, however imperfectly it may be executed. The literal imitation of objects will not answer for this more complex and extended plan. It would occupy too much space, as well as time, in the execution. It then becomes necessary to abridge the pictures, to confine the drawing to outlines, or to such prominent parts of the bodies delineated, as may readily suggest the whole. This is the *representative* or *figurative* writing, which forms the lowest stage of hieroglyphics.

But there are things which have no type in the material world; abstract ideas, which can only be represented by visible objects supposed to have some quality analogous to the idea intended. This constitutes *symbolical* writing, the most difficult of all to the interpreter, since the analogy between the material and immaterial object is often purely fanciful, or local in its application. Who, for instance, could suspect the association which made a beetle represent the universe, as with the Egyptians, or a serpent typify time, as with the Aztecs?

The third and last division is the *phonetic*, in which signs are made to represent sounds, either entire words, or parts of them. This is the nearest

approach of the hieroglyphical series to that beautiful invention, the alphabet, by which language is resolved into its elementary sounds, and an apparatus supplied for easily and accurately expressing the most delicate shades of thought.

The Egyptians were well skilled in all three kinds of hieroglyphics. But, although their public monuments display the first class, in their ordinary intercourse and written records, it is now certain, they almost wholly relied on the phonetic character. Strange, that, having thus broken down the thin partition which divided them from an alphabet, their latest monuments should exhibit no nearer approach to it than their earliest.³ The Aztecs, also, were acquainted with the several varieties of hieroglyphics. But they relied on the figurative infinitely more than on the others. The Egyptians were at the top of the scale, the Aztecs at the bottom.

In casting the eye over a Mexican manuscript, or map, as it is called, one is struck with the grotesque caricatures it exhibits of the human figure; monstrous, overgrown heads, on puny, misshapen bod-

³ It appears that the hieroglyphics on the most recent monuments of Egypt contain no larger infusion of phonetic characters than those which existed eighteen centuries before Christ; showing no advance, in this respect, for twenty-two hundred years! (See Champollion, *Précis du Système Hiéroglyphique des Anciens Égyptiens*, (Paris, 1824,) pp. 242, 281.) It may seem more strange that the enchorial alphabet, so much more commodious, should not have been substituted. But the Egyptians were familiar with their hieroglyphics from infancy, which, moreover, took the fancies of the most illiterate, probably in the same manner as our children are attracted and taught by the picture-alphabets in an ordinary spelling-book.

ies, which are themselves hard and angular in their outlines, and without the least skill in composition. On closer inspection, however, it is obvious that it is not so much a rude attempt to delineate nature, as a conventional symbol, to express the idea in the most clear and forcible manner; in the same way as the pieces of similar value on a chess-board, while they correspond with one another in form, bear little resemblance, usually, to the objects they represent. Those parts of the figure are most distinctly traced, which are the most important. So, also, the coloring, instead of the delicate gradations of nature, exhibits only gaudy and violent contrasts, such as may produce the most vivid impression. "For even colors," as Gama observes, "speak in the Aztec hieroglyphics."⁴

But in the execution of all this the Mexicans were much inferior to the Egyptians. The drawings of the latter, indeed, are exceedingly defective, when criticised by the rules of art; for they were as ignorant of perspective as the Chinese, and only exhibited the head in profile, with the eye in the centre, and with total absence of expression. But they handled the pencil more gracefully than the Aztecs, were more true to the natural forms of objects, and, above all, showed great superiority in abridging the original figure by giving only the outline, or some characteristic or essential feature. This simplified the process, and facilitated the communication of thought. An

⁴ Descripción Histórica y Cronológica de las Dos Piedras, (México, 1832,) Parte 2, p. 39.

Egyptian text has almost the appearance of alphabetical writing in its regular lines of minute figures. A Mexican text looks usually like a collection of pictures, each one forming the subject of a separate study. This is particularly the case with the delineations of mythology; in which the story is told by a conglomeration of symbols, that may remind one more of the mysterious anaglyphs sculptured on the temples of the Egyptians, than of their written records.

The Aztecs had various emblems for expressing such things as, from their nature, could not be directly represented by the painter; as, for example, the years, months, days, the seasons, the elements, the heavens, and the like. A "tongue" denoted speaking; a "foot-print," travelling; a "man sitting on the ground," an earthquake. These symbols were often very arbitrary, varying with the caprice of the writer; and it requires a nice discrimination to interpret them, as a slight change in the form or position of the figure intimated a very different meaning.⁵ An ingenious writer asserts that the priests devised secret symbolic characters for the record of their religious mysteries. It is possible. But the researches of Champollion lead to the conclusion, that

⁵ Ibid., pp. 32, 44. — Acosta, lib. 6, cap. 7.

The continuation of Gama's work, recently edited by Bustamante, in Mexico, contains, among other things, some interesting remarks on the Aztec hieroglyphics.

The editor has rendered a good service by this further publication of the writings of this estimable scholar, who has done more than any of his countrymen to explain the mysteries of Aztec science.

the similar opinion, formerly entertained respecting the Egyptian hieroglyphics, is without foundation.⁶

Lastly, they employed, as above stated, phonetic signs, though these were chiefly confined to the names of persons and places; which, being derived from some circumstance, or characteristic quality, were accommodated to the hieroglyphical system. Thus the town *Cimatlan* was compounded of *cimatl*, a "root," which grew near it, and *tlan*, signifying "near"; *Tlaxcallan* meant "the place of bread," from its rich fields of corn; *Huexotzinco*, "a place surrounded by willows." The names of persons were often significant of their adventures and achievements. That of the great Tezcucan prince, Nezahualcoyotl, signified "hungry fox," intimating his sagacity, and his distresses in early life.⁷ The emblems of such names were no sooner seen, than they suggested to every Mexican the person and

⁶ Gama, *Descripcion*, Parte 2, p. 32.

Warburton, with his usual penetration, rejects the idea of mystery in the figurative hieroglyphics. (*Divine Legation*, b. 4, sec. 4.) If there was any mystery reserved for the initiated, Champollion thinks it may have been the system of the anaglyphs. (*Précis*, p. 360.) Why may not this be true, likewise, of the monstrous symbolical combinations which represented the Mexican deities?

⁷ Boturini, *Idea*, pp. 77-83. —

Gama, *Descripcion*, Parte 2, pp. 34-43.

Heeren is not aware, or does not allow, that the Mexicans used phonetic characters of any kind. (*Hist. Res.*, vol. V. p. 45.) They, indeed, reversed the usual order of proceeding, and, instead of adapting the hieroglyphic to the name of the object, accommodated the name of the object to the hieroglyphic. This, of course, could not admit of great extension. We find phonetic characters, however, applied, in some instances, to common, as well as proper names.

place intended ; and, when painted on their shields, or embroidered on their banners, became the armorial bearings, by which city and chieftain were distinguished, as in Europe, in the age of chivalry.⁸

But, although the Aztecs were instructed in all the varieties of hieroglyphical painting, they chiefly resorted to the clumsy method of direct representation. Had their empire lasted, like the Egyptian, several thousand, instead of the brief space of two hundred years, they would, doubtless, like them, have advanced to the more frequent use of the phonetic writing. But, before they could be made acquainted with the capabilities of their own system, the Spanish Conquest, by introducing the European alphabet, supplied their scholars with a more perfect contrivance for expressing thought, which soon supplanted the ancient pictorial character.⁹

Clumsy as it was, however, the Aztec picture-writing seems to have been adequate to the demands of the nation, in their imperfect state of civilization. By means of it were recorded all their laws, and even their regulations for domestic economy ; their tribute-rolls, specifying the imposts of the various towns ; their mythology, calendars, and rituals ; their political annals, carried back to a period long before the foundation of the city. They digested a com-

⁸ Boturini, *Idea*, ubi supra.

⁹ Clavigero has given a catalogue of the Mexican historians of the sixteenth century, — some of whom are often cited in this history, — which bears honorable

testimony to the literary ardor and intelligence of the native races. *Stor. del Messico*, tom. I., Pref. — Also, Gama, *Descripcion*. Parte 1, passim.

plete system of chronology, and could specify with accuracy the dates of the most important events in their history; the year being inscribed on the margin, against the particular circumstance recorded. It is true, history, thus executed, must necessarily be vague and fragmentary. Only a few leading incidents could be presented. But in this it did not differ much from the monkish chronicles of the dark ages, which often dispose of years in a few brief sentences; — quite long enough for the annals of barbarians.¹⁰

In order to estimate aright the picture-writing of the Aztecs, one must regard it in connexion with oral tradition, to which it was auxiliary. In the colleges of the priests the youth were instructed in astronomy, history, mythology, &c.; and those who were to follow the profession of hieroglyphical painting were taught the application of the characters appropriated to each of these branches. In an historical work, one had charge of the chronology, another of the events. Every part of the labor was thus mechanically distributed.¹¹ The pupils, instructed

¹⁰ M. de Humboldt's remark, that the Aztec annals, from the close of the eleventh century, "exhibit the greatest method, and astonishing minuteness," (*Vues des Cordillères*, p. 137,) must be received with some qualification. The reader would scarcely understand from it, that there are rarely more than one or two facts recorded in any year, and sometimes not one in a dozen or more. The necessary

looseness and uncertainty of these historical records are made apparent by the remarks of the Spanish interpreter of the Mendoza codex, who tells us that the natives, to whom it was submitted, were very long in coming to an agreement about the proper signification of the paintings. *Antiq. of Mexico*, vol. VI. p. 87.

¹¹ Gama, *Descripcion*, Parte 2, p. 30. — Acosta, lib. 6, cap. 7.

in all that was before known in their several departments, were prepared to extend still further the boundaries of their imperfect science. The hieroglyphics served as a sort of stenography, a collection of notes, suggesting to the initiated much more than could be conveyed by a literal interpretation. This combination of the written and the oral comprehended what may be called the literature of the Aztecs.¹²

Their manuscripts were made of different materials, — of cotton cloth, or skins nicely prepared; of a composition of silk and gum; but, for the most

“Tenian para cada género,” says Ixtlilxochitl, “sus Escritores, unos que trataban de los Anales, poniendo por su orden las cosas que acaecian en cada un año, con dia, mes, y hora; otros tenian á su cargo las Genealogías, y descendencia de los Reyes, Señores, y Personas de linaje, asentando por cuenta y razon los que nacian, y borran los que morian con la misma cuenta. Unos tenian cuidado de las pinturas, de los términos, límites, y mojoneras de las Ciudades, Provincias, Pueblos, y Lugares, y de las suertes, y repartimiento de las tierras cuyas eran, y á quien pertenecian; otros de los libros de Leyes, ritos, y ceremonias que usaban.” Hist. Chich., MS., Prólogo.

¹² According to Boturini, the ancient Mexicans were acquainted with the Peruvian method of recording events, by means of the

quippus, — knotted strings of various colors, — which were afterwards superseded by hieroglyphical painting. (Idea, p. 86.) He could discover, however, but a single specimen, which he met with in Tlascalala, and that had nearly fallen to pieces with age. McCulloch suggests that it may have been only a wampum belt, such as is common among our North American Indians. (Researches, p. 201.) The conjecture is plausible enough. Strings of wampum, of various colors, were used by the latter people for the similar purpose of registering events. The insulated fact, recorded by Boturini, is hardly sufficient — unsupported, as far as I know, by any other testimony — to establish the existence of *quippus* among the Aztecs, who had but little in common with the Peruvians.

part, of a fine fabric from the leaves of the aloe, *agave Americana*, called by the natives, *maguey*, which grows luxuriantly over the table-lands of Mexico. A sort of paper was made from it, resembling somewhat the Egyptian *papyrus*,¹³ which, when properly dressed and polished, is said to have been more soft and beautiful than parchment. Some of the specimens, still existing, exhibit their original freshness, and the paintings on them retain their brilliancy of colors. They were sometimes done up into rolls, but more frequently into volumes, of moderate size, in which the paper was shut up, like a folding-screen, with a leaf or tablet of wood at each extremity, that gave the whole, when closed, the appearance of a book. The length of the strips was determined only by convenience. As the pages might be read and referred to separately, this form had obvious advantages over the rolls of the ancients.¹⁴

¹³ Pliny, who gives a minute account of the *papyrus* reed of Egypt, notices the various manufactures obtained from it, as ropes, cloth, paper, &c. It also served as a thatch for the roofs of houses, and as food and drink for the natives. (Hist. Nat., lib. 11, cap. 20-22.) It is singular that the American *agave*, a plant so totally different, should also have been applied to all these various uses.

¹⁴ Lorenzana, Hist. de Nueva España, p. 8. — Boturini, Idea, p. 96. — Humboldt, Vues des Cor-

dillères, p. 52. — Peter Martyr Anglerius, De Orbe Novo, (Compluti, 1530,) dec. 3, cap. 8; dec. 5, cap. 10.

Martyr has given a minute description of the Indian maps, sent home soon after the invasion of New Spain. His inquisitive mind was struck with the evidence they afforded of a positive civilization. Ribera, the friend of Cortés, brought back a story, that the paintings were designed as patterns for embroiderers and jewelers. But Martyr had been in

At the time of the arrival of the Spaniards, great quantities of these manuscripts were treasured up in the country. Numerous persons were employed in painting, and the dexterity of their operations excited the astonishment of the Conquerors. Unfortunately, this was mingled with other, and unworthy feelings. The strange, unknown characters inscribed on them excited suspicion. They were looked on as magic scrolls; and were regarded in the same light with the idols and temples, as the symbols of a pestilent superstition, that must be extirpated. The first archbishop of Mexico, Don Juan de Zumarraga,—a name that should be as immortal as that of Omar,—collected these paintings from every quarter, especially from Tezcucó, the most cultivated capital in Anahuac, and the great depository of the national archives. He then caused them to be piled up in a “mountain-heap,”—as it is called by the Spanish writers themselves,—in the market-place of Tlatelolco, and reduced them all to ashes!¹⁵ His greater countryman, Archbishop Ximenes, had celebrated a similar *auto-da-fe* of Arabic manuscripts, in Granada, some twenty years before. Never did fanaticism achieve two

Egypt, and he felt little hesitation in placing the Indian drawings in the same class with those he had seen on the obelisks and temples of that country.

¹⁵ Ixtlilxochitl, Hist. Chich., MS., Prólogo.—Idem, Sum. Relac., MS.

Writers are not agreed whether the conflagration took place in the square of Tlatelolco or Tezcucó. Comp. Clavigero, Stor. del Messico, tom. II. p. 188, and Bustamante's Pref. to Ixtlilxochitl, Cruautés des Conquérens, trad. de Ternaux, p. xvii.

more signal triumphs, than by the annihilation of so many curious monuments of human ingenuity and learning! ¹⁶

The unlettered soldiers were not slow in imitating the example of their prelate. Every chart and volume which fell into their hands was wantonly destroyed; so that, when the scholars of a later and more enlightened age anxiously sought to recover some of these memorials of civilization, nearly all had perished, and the few surviving were jealously hidden by the natives.¹⁷ Through the indefatigable labors of a private individual, however, a considerable collection was eventually deposited in the archives of Mexico; but was so little heeded there, that some were plundered, others decayed piecemeal from the damps and mildews, and others, again, were used up as waste-paper!¹⁸ We contemplate with indignation the cruelties inflicted by the early conquerors. But indignation is qualified with contempt, when we see them thus ruthlessly trampling out the spark of knowledge, the common boon and property of all mankind. We may well

¹⁶ It has been my lot to record both these displays of human infirmity, so humbling to the pride of intellect. See the History of Ferdinand and Isabella, Part 2, Chap. 6.

¹⁷ Sahagun, Hist. de Nueva España, lib. 10, cap. 27.—Bustamante, Mañanas de Alameda, (México, 1836,) tom. II., Prólogo.

¹⁸ The enlightened governor, Don Lorenzo Zavala sold the documents in the archives of the Audience of Mexico, according to Bustamante, as wrapping-paper, to apothecaries, shopkeepers, and rocket-makers! Boturini's noble collection has not fared much better.

doubt, which has the strongest claims to civilization, the victor, or the vanquished.

A few of the Mexican manuscripts have found their way, from time to time, to Europe, and are carefully preserved in the public libraries of its capitals. They are brought together in the magnificent work of Lord Kingsborough; but not one is there from Spain. The most important of them, for the light it throws on the Aztec institutions, is the Mendoza Codex; which, after its mysterious disappearance for more than a century, has at length reappeared in the Bodleian library at Oxford. It has been several times engraved.¹⁹ The most brilliant

¹⁹ The history of this famous collection is familiar to scholars. It was sent to the Emperor Charles the Fifth, not long after the Conquest, by the viceroy Mendoza, Marques de Mondejar. The vessel fell into the hands of a French cruiser, and the manuscript was taken to Paris. It was afterwards bought by the chaplain of the English embassy, and, coming into the possession of the antiquary Purchas, was engraved, *in extenso*, by him, in the third volume of his "Pilgrimage." After its publication, in 1625, the Aztec original lost its importance, and fell into oblivion so completely, that, when at length the public curiosity was excited in regard to its fate, no trace of it could be discovered. Many were the speculations of scholars, at home and abroad, respecting it, and Dr. Robertson settled the question as to its existence in England, by declaring that there was no Mexican relic in that country, except a golden goblet of Montezuma. (History of America, (London, 1796,) vol. III. p. 370.) Nevertheless, the identical Codex, and several other Mexican paintings, have been since discovered in the Bodleian library. The circumstance has brought some obloquy on the historian, who, while prying into the collections of Vienna and the Escurial, could be so blind to those under his own eyes. The oversight will not appear so extraordinary to a thorough-bred collector, whether of manuscripts, or medals, or any other rarity. The Mendoza Codex is, after all, but a copy, coarsely done with a pen on European paper. Another copy, from which Archbishop Lorenzana en-

in coloring, probably, is the Borgian collection, in Rome.²⁰ The most curious, however, is the Dresden Codex, which has excited less attention than it deserves. Although usually classed among Mexican manuscripts, it bears little resemblance to them in its execution; the figures of objects are more delicately drawn, and the characters, unlike the Mexican, appear to be purely arbitrary, and are possibly phonetic.²¹ Their regular arrangement is quite equal to the Egyptian. The whole infers a much higher

graved his tribute-rolls in Mexico, existed in Boturini's collection. A third is in the Escorial, according to the Marquess of Spineto. (Lectures on the Elements of Hieroglyphics, (London,) lect. 7.) This may possibly be the original painting. The entire Codex, copied from the Bodleian maps, with its Spanish and English interpretations, is included in the noble compilation of Lord Kingsborough. (Vols. I., V., VI.) It is distributed into three parts; embracing the civil history of the nation, the tributes paid by the cities, and the domestic economy and discipline of the Mexicans; and, from the fulness of the interpretation, is of much importance in regard to these several topics.

²⁰ It formerly belonged to the Giustiniani family; but was so little cared for, that it was suffered to fall into the mischievous hands of the domestics' children, who made sundry attempts to burn it. Fortunately it was painted on deerskin, and, though somewhat

singed, was not destroyed. (Humboldt, *Vues des Cordillères*, p. 89, et seq.) It is impossible to cast the eye over this brilliant assemblage of forms and colors without feeling how hopeless must be the attempt to recover a key to the Aztec mythological symbols; which are here distributed with the symmetry, indeed, but in all the endless combinations, of the kaleidoscope. It is in the third volume of Lord Kingsborough's work.

²¹ Humboldt, who has copied some pages of it in his "Atlas Pittoresque," intimates no doubt of its Aztec origin. (*Vues des Cordillères*, pp. 266, 267.) M. Le Noir even reads in it an exposition of Mexican Mythology, with occasional analogies to that of Egypt and of Hindostan. (*Antiquités Mexicaines*, tom. II., Introd.) The fantastic forms of hieroglyphic symbols may afford analogies for almost any thing.

civilization than the Aztec, and offers abundant food for curious speculation.²²

Some few of these maps have interpretations annexed to them, which were obtained from the natives after the Conquest.²³ The greater part are

²² The history of this Codex, engraved entire in the third volume of the "Antiquities of Mexico," goes no further back than 1739, when it was purchased at Vienna for the Dresden library. It is made of the American *agave*. The figures painted on it bear little resemblance, either in feature or form, to the Mexican. They are surmounted by a sort of head-gear, which looks something like a modern peruke. On the chin of one we may notice a beard, a sign often used after the Conquest to denote a European. Many of the persons are sitting cross-legged. The profiles of the faces, and the whole contour of the limbs, are sketched with a spirit and freedom, very unlike the hard, angular outlines of the Aztecs. The characters, also, are delicately traced, generally in an irregular, but circular form, and are very minute. They are arranged, like the Egyptian, both horizontally and perpendicularly, mostly in the former manner, and, from the prevalent direction of the profiles, would seem to have been read from right to left. Whether phonetic or ideographic, they are of that compact and purely conventional sort which belongs to a well-digested system

for the communication of thought. One cannot but regret, that no trace should exist of the quarter whence this MS. was obtained; perhaps, some part of Central America; from the region of the mysterious races who built the monuments of Mitla and Palenque. Though, in truth, there seems scarcely more resemblance in the symbols to the Palenque *bas-reliefs*, than to the Aztec paintings.

²³ There are three of these; the Mendoza Codex; the Telleriano-Remensis, — formerly the property of Archbishop Tellier, — in the Royal library of Paris; and the Vatican MS., No. 3738. The interpretation of the last bears evident marks of its recent origin; probably as late as the close of the sixteenth, or the beginning of the seventeenth century, when the ancient hieroglyphics were read with the eye of faith, rather than of reason. Whoever was the commentator, (comp. *Vues des Cordillères*, pp. 203, 204; and *Antiq. of Mexico*, vol. VI. pp. 155, 222,) he has given such an exposition, as shows the old Aztecs to have been as orthodox Christians, as any subjects of the Pope.

without any, and cannot now be unriddled. Had the Mexicans made free use of a phonetic alphabet, it might have been originally easy, by mastering the comparatively few signs employed in this kind of communication, to have got a permanent key to the whole.²⁴ A brief inscription has furnished a clue to the vast labyrinth of Egyptian hieroglyphics. But the Aztec characters, representing individuals, or, at most, species, require to be made out separately; a hopeless task, for which little aid is to be expected from the vague and general tenor of the few interpretations now existing. There was, as already mentioned, until late in the last century, a professor in the University of Mexico, especially devoted to the study of the national picture-writing. But, as this was with a view to legal proceedings, his information, probably, was limited to deciphering titles. In less than a hundred years after the Conquest, the knowledge of the hieroglyphics had so far declined, that a diligent Tezcucan writer complains he could find in the country only two persons, both very aged, at all competent to interpret them.²⁵

²⁴ The total number of Egyptian hieroglyphics discovered by Champollion amounts to 864; and of these 130 only are phonetic, notwithstanding that this kind of character is used far more frequently than both the others. *Précis*, p. 263; — also Spineto, *Lectures*, lect. 3.

²⁵ *Ixtlilxochitl*, *Hist. Chich.*, MS., *Dedic.*

Boturini, who travelled through every part of the country, in the middle of the last century, could not meet with an individual who could afford him the least clue to the Aztec hieroglyphics. So completely had every vestige of their ancient language been swept away from the memory of the natives. (*Idea*, p. 116.) If we are to believe Bustamante, however, a com-

It is not probable, therefore, that the art of reading these picture-writings will ever be recovered; a circumstance certainly to be regretted. Not that the records of a semi-civilized people would be likely to contain any new truth or discovery important to human comfort or progress; but they could scarcely fail to throw some additional light on the previous history of the nation, and that of the more polished people who before occupied the country. This would be still more probable, if any literary relics of their Toltec predecessors were preserved; and, if report be true, an important compilation from this source was extant at the time of the invasion, and may have perhaps contributed to swell the holocaust of Zumarraga.²⁶ It is no great stretch of fancy, to suppose that such records might reveal the

plete key to the whole system is, at this moment, *somewhere* in Spain. It was carried home, at the time of the process against father Mier, in 1795. The name of the Mexican Champollion who discovered it is Borunda. Gama, *Descripcion*, tom. II. p. 33, nota.

²⁶ *Teoamoxtli*, "the divine book," as it was called. According to Ixtlilxochitl, it was composed by a Tezcucan doctor, named Huèmatzin, towards the close of the seventh century. (*Relaciones*, MS.) It gave an account of the migrations of his nation from Asia, of the various stations on their journey, of their social and religious institutions, their science, arts,

&c., &c., a good deal too much for one book. *Ignotum pro magnifico*. It has never been seen by a European. A copy is said to have been in possession of the Tezcucan chroniclers, on the taking of their capital. (*Bustamante, Crónica Mexicana*, (México, 1822,) carta 3.) Lord Kingsborough, who can scent out a Hebrew root, be it buried never so deep, has discovered that the *Teoamoxtli* was the Pentateuch. Thus, — *teo* means "divine," *amotl*, "paper" or "book," and *moxtli* "appears to be Moses," — "Divine Book of Moses"! *Antiq. of Mexico*, vol. VI. p. 204, nota.

successive links in the mighty chain of migration of the primitive races, and, by carrying us back to the seat of their possessions in the Old World, have solved the mystery which has so long perplexed the learned, in regard to the settlement and civilization of the New.

Besides the hieroglyphical maps, the traditions of the country were embodied in the songs and hymns, which, as already mentioned, were carefully taught in the public schools. These were various, embracing the mythic legends of a heroic age, the warlike achievements of their own, or the softer tales of love and pleasure.²⁷ Many of them were composed by scholars and persons of rank, and are cited as affording the most authentic record of events.²⁸ The Mexican dialect was rich and expressive, though inferior to the Tezcucan, the most polished of the idioms of Anahuac. None of the Aztec compositions have survived, but we can form some estimate of the general state of poetic culture from the odes which have come down to us from the royal house of Tezcuco.²⁹ Sahagun has furnished us with translations of their more elaborate prose, consisting of prayers and public discourses,

²⁷ Boturini, *Idea*, pp. 90-97.— Clavigero, *Stor. del Messico*, tom. II. pp. 174-178.

²⁸ "Los cantos con que las observaban Autores muy graves en su modo de ciencia y facultad, pues fueron los mismos Reyes, y de la gente mas ilustre y enten-

dida, que siempre observaron y adquirieron la verdad, y esta con tanta, y razon, quanta pudieron tener los mas graves y fidedignos Autores." Ixtlilxochitl, *Hist. Chich.*, MS., Prólogo.

²⁹ See Chap. 6, of this Introduction.

which give a favorable idea of their eloquence, and show that they paid much attention to rhetorical effect. They are said to have had, also, something like theatrical exhibitions, of a pantomimic sort, in which the faces of the performers were covered with masks, and the figures of birds or animals were frequently represented; an imitation, to which they may have been led by the familiar delineation of such objects in their hieroglyphics.³⁰ In all this we see the dawning of a literary culture, surpassed, however, by their attainments in the severer walks of mathematical science.

They devised a system of notation in their arithmetic, sufficiently simple. The first twenty numbers were expressed by a corresponding number of dots. The first five had specific names; after which they were represented by combining the fifth with one of the four preceding; as five and one for six, five and two for seven, and so on. Ten and fifteen had each a separate name, which was also combined with the first four, to express a higher quantity. These four, therefore, were the radical characters of their oral arithmetic, in the same manner as they were of the written with the ancient Romans; a more simple arrangement, probably, than any existing among Europeans.³¹ Twenty was expressed by

³⁰ See some account of these mummeries in Acosta, (lib. 5, cap. 30,) — also Clavigero (Stor. del Messico, ubi supra). Stone models of masks are sometimes found among the Indian ruins, and en-

gravings of them are both in Lord Kingsborough's work, and in the Antiquités Mexicaines.

³¹ Gama, Description, Parte 2, Apend. 2.

Gama, in comparing the language

a separate hieroglyphic, — a flag. Larger sums were reckoned by twenties, and, in writing, by repeating the number of flags. The square of twenty, four hundred, had a separate sign, that of a plume, and so had the cube of twenty, or eight thousand, which was denoted by a purse, or sack. This was the whole arithmetical apparatus of the Mexicans, by the combination of which they were enabled to indicate any quantity. For greater expedition, they used to denote fractions of the larger sums by drawing only a part of the object. Thus, half or three fourths of a plume, or of a purse, represented that proportion of their respective sums, and so on.³²

With all this, the machinery will appear very awkward to us, who perform our operations with so much ease, by means of the Arabic, or, rather, Indian ciphers. It is not much more awkward, however, than the system pursued by the great mathematicians of antiquity, unacquainted with the brilliant invention, which has given a new aspect to mathematical science, of determining the value, in a great measure, by the relative position of the figures.

In the measurement of time, the Aztecs adjusted their civil year by the solar. They divided it into eighteen months of twenty days each. Both months and days were expressed by peculiar hieroglyphics, — those of the former often intimating

of Mexican notation with the decimal system of the Europeans, and the ingenious binary system of Leibnitz, confounds oral with written arithmetic.

³² Ibid., ubi supra.

This learned Mexican has given a very satisfactory treatise on the arithmetic of the Aztecs, in his second part.

the season of the year, like the French months, at the period of the Revolution. Five complementary days, as in Egypt,³³ were added, to make up the full number of three hundred and sixty-five. They belonged to no month, and were regarded as peculiarly unlucky. A month was divided into four weeks, of five days each, on the last of which was the public fair, or market day.³⁴ This arrangement, differing from that of the nations of the Old Continent, whether of Europe or Asia,³⁵ has the advantage of giving an equal number of days to each month, and of comprehending entire weeks, without a fraction, both in the months and in the year.³⁶

As the year is composed of nearly six hours more than three hundred and sixty-five days, there still remained an excess, which, like other nations who have framed a calendar, they provided for by intercalation; not, indeed, every fourth year, as the Europeans,³⁷ but at longer intervals, like some of the

³³ Herodotus, Euterpe, sec. 4.

³⁴ Sahagun, *Hist. de Nueva España*, lib. 4, Apend.

According to Clavigero, the fairs were held on the days bearing the sign of the year. *Stor. del Messico*, tom. II. p. 62.

³⁵ The people of Java, according to Sir Stamford Raffles, regulated their markets, also, by a week of five days. They had, besides, our week of seven. (*History of Java*, (London, 1830,) vol. I., pp. 531, 532.) The latter division of time, of general use throughout the East, is the oldest

monument existing of astronomical science. See La Place, *Exposition du Système du Monde*, (Paris, 1808,) lib. 5, chap. 1.

³⁶ Veytia, *Historia Antigua de Méjico*, (Méjico, 1806,) tom. I. cap. 6, 7. — Gama, *Descripcion*, Parte 1, pp. 33, 34, et alibi. — Boturini, *Idea*, pp. 4, 44, et seq. — *Cod. Tel.-Rem.*, ap. *Antiq. of Mexico*, vol. VI. p. 104. — Camargo, *Hist. de Tlascalala*, MS. — Toribio, *Hist. de los Indios*, MS., Parte 1, cap. 5.

³⁷ Sahagun intimates doubts of this. "Otra fiesta hacian de quatro en quatro años á honra del

Asiatics.³⁸ They waited till the expiration of fifty-two vague years, when they interposed thirteen days, or rather twelve and a half, this being the number which had fallen in arrear. Had they inserted thirteen, it would have been too much, since the annual excess over three hundred and sixty-five is about eleven minutes less than six hours. But, as their calendar, at the time of the Conquest, was found to correspond with the European, (making allowance for the subsequent Gregorian reform,) they would seem to have adopted the shorter period of twelve days and a half,³⁹ which brought them, within an

fuego, y en esta fiesta *es verosímil, y hay congeturas* que hacian su visiesto contando seis dias de *ne-montemi*"; the five unlucky complementary days were so called. (Hist. de Nueva España, lib. 4; Apend.) But this author, however good an authority for the superstitions, is an indifferent one for the science of the Mexicans.

³⁸ The Persians had a cycle of one hundred and twenty years, of three hundred and sixty-five days each, at the end of which they intercalated thirty days. (Humboldt, *Vues des Cordillères*, p. 177.) This was the same as thirteen after the cycle of fifty-two years of the Mexicans; but was less accurate than their probable intercalation of twelve days and a half. It is obviously indifferent, as far as accuracy is concerned, which multiple of four is selected to form the cycle; though, the shorter the interval of intercalation, the less,

of course, will be the temporary departure from the true time.

³⁹ This is the conclusion to which Gama arrives, after a very careful investigation of the subject. He supposes that the "bundles," or cycles, of fifty-two years, — by which, as we shall see, the Mexicans computed time, — ended, alternately, at midnight and mid-day. (*Descripcion*, Parte 1, p. 52, et seq.) He finds some warrant for this in Acosta's account, (lib. 6, cap. 2,) though contradicted by Torquemada, (*Monarch. Ind.*, lib. 5, cap. 33,) and, as it appears, by Sahagun, — whose work, however, Gama never saw, — (*Hist. de Nueva España*, lib. 7, cap. 9,) both of whom place the close of the year at midnight. Gama's hypothesis derives confirmation from a circumstance I have not seen noticed. Besides the "bundle" of fifty-two years, the Mexicans had a larger cycle