Phoenicia

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8. Industrial Art and Manufactures

Phoenicia was celebrated from a remote antiquity for the manufacture of textile fabrics. The materials which she employed for them were wool, linen yarn, perhaps cotton, and, in the later period of her commercial prosperity, silk. The "white wool" of Syria was supplied to her in abundance by the merchants of Damascus, and wool of lambs, rams, and goats seems also to have been furnished by the more distant parts of Arabia. Linen yarn may have been imported from Egypt, where it was largely manufactured, and was of excellent quality; while raw silk is said to have been "brought to Tyre and Berytus by the Persian merchants, and there both dyed and woven into cloaks." The price of silk was very high, and it was customary in Phoenicia to intermix the precious material either with linen or with cotton; as is still done to a certain extent in modern times. It is perhaps doubtful whether, so far as the mere fabric of stuffs was concerned, the products of the Phoenician looms were at all superior to those which Egypt and Babylonia furnished, much less to those which came from India, and passed under the name of _Sindones_. Two things gave to the Phoenician stuffs that high reputation which caused them to be more sought for than any others; and these were, first, the brilliancy and beauty of their colours, and, secondly, the delicacy with which they were in many instances embroidered. We have not much trace of Phoenician embroidery on the representations of dresses that have come down to us; but the testimony of the ancients is unimpeachable, and we may regard it as certain that the art of embroidery, known at a very early date to the Hebrews, was cultivated with great success by their Phoenician neighbours, and under their auspices reached a high point of perfection. The character of the decoration is to be gathered from the extant statues and bas-reliefs, from the representations on paterae, on cups, dishes, and gems. There was a tendency to divide the surface to be ornamented into parallel stripes or bands, and to repeat along the line a single object, or two alternately. Rosettes, monsters of various kinds, winged globes with uraei, scarabs, sacred trees, and garlands or blossoms of the lotus were the ordinary "motives." Occasionally human figures might be introduced, and animal forms even more frequently; but a stiff conventionalism prevailed, the same figures were constantly repeated, and the figures themselves had in few cases much beauty.

The brilliancy and beauty of the Phoenician coloured stuffs resulted from the excellency of their dyes. Here we touch a second branch of their industrial skill, for the principal dyes used were originally invented and continuously fabricated by the Phoenicians themselves, not imported from any foreign country. Nature had placed along the Phoenician coast, or at any rate along a great portion of it, an inexhaustible supply of certain shell-fish, or molluscs, which contained as a part of their internal economy a colouring fluid possessing remarkable, and indeed unique, qualities. Some account has been already given of the species which are thought to have been anciently most esteemed. They belong, mainly, to the two allied families of the _Murex_ and the _Buccinum_ or _Purpura_. Eight species of the former, and six of the latter, having their habitat in the Mediterranean, have been

distinguished by some naturalists; but two of the former only, and one of the latter, appear to have attracted the attention of the Phoenicians. The _Murex brandaris_ is now thought to have borne away the palm from all the others; it is extremely common upon the coast; and enormous heaps of the shells are found, especially in the vicinity of Tyre, crushed and broken--the debris, as it would seem, cast away by the manufacturers of old. The _Murex trunculus_, according to some, is just as abundant, in a crushed state, in the vicinity of Sidon, great banks of it existing, which are a hundred yards long and several yards thick. It is a more spinous shell than the _M. brandaris_, having numerous projecting points, and a generally rough and rugged appearance. The _Purpura_ employed seems to have been the _P. lapillus_, a mollusc not confined to the Mediterranean, but one which frequents also our own shores, and was once turned to some account in Ireland. The varieties of the _P. lapillus_ differ considerably. Some are nearly white, some greyish, others buff striped with brown. Some, again, are smooth, others nearly as rough as the _Murex trunculus_. The _Helix ianthina_, which is included by certain writers among the molluscs employed for dyeing purposes by the Phoenicians, is a shell of a completely different character, smooth and delicate, much resembling that of an ordinary land snail, and small compared to the others. It is not certain, however, that the _helix_, though abounding in the Eastern Mediterranean, ever attracted the notice of the Phoenicians.

The molluscs needed by the Phoenician dyers were not obtained without some difficulty. As the Mediterranean has no tides, it does not uncover its shores at low water like the ocean, or invite man to rifle them. The coveted shell-fish, in most instances, preferred tolerably deep water; and to procure them in any quantity it was necessary that they should be fished up from a depth of some fathoms. The mode in which they were captured was the following. A long rope was let down into the sea, with baskets of reeds or rushes attached to it at intervals, constructed like our lobster-traps or eel-baskets, with an opening that yielded easily to pressure from the outside, but resisted pressure from the inside, and made escape, when once the trap was entered, impossible. The baskets were baited with mussels or frogs, both of which had great attractions for the _Purpurae_, and were seized and devoured with avidity. At the upper end of the rope was attached to a large piece of cork, which, even when the baskets were full, could not be drawn under water. It was usual to set the traps in the evening, and after waiting a night, or sometimes a night and a day, to draw them up to the surface, when they were generally found to be full of the coveted shell-fish.

There were two ways in which the dye was obtained from the molluscs. Sometimes a hole was broken in the side of the shell, and the fish taken out entire. The _sac_ containing the colouring matter, which is a sort of vein, beginning at the head of the animal, and following the tortuous line of the body as it twists through the spiral shell, was then carefully extracted, either while the mollusc was still alive, or as soon as possible after death, as otherwise the quality of the dye was impaired. This plan was pursued more especially with the larger species of _Purpurae_, where the _sac_ attained a certain size; while with a smaller kinds a different method was followed. In their case no attempt was made to extract the _sac_, but the entire fish was crushed, together with its shell, and after salt had been added in the proportion of twenty ounces to a hundred pounds of the pulp, three days were allowed for maceration; heat was then applied, and when, by repeated skimming, the coarse particles had been removed, the dye was left in a liquid state at the bottom. It was necessary that the vessel in which this final process took place should be of lead, and not of bronze or iron, since those metals gave the dye a disagreeable tinge.

The colouring matter contained in the _sac_ of the _Purpurae_ is a liquid of a creamy consistency, and of a yellowish-white hue. On extraction, it is at first decidedly yellow; then after a little time it becomes green; and, finally, it settles into some shade of violet or purple. Chemical analysis has shown that in the case of the _Murex trunculus_ the liquid is composed of two elementary substances, one being cyanic acid, which is of a blue or azure colour, and the other being purpuric oxide, which is a bright red. In the case of the _Murex brandaris_ one element only has been found: it is an oxide, which has received the name of _oxyde tyrien_. No naturalist has as yet discovered what purpose the liquid serves in the economy, or in the preservation, of the animal; it is certainly not exuded, as sepia is by the cuttle-fish, to cloud the water in the neighbourhood, and enable the creature to conceal itself.

Concerning the Phoenician process of dyeing, the accounts which have come down to us are at once confused and incomplete. Nothing is said with respect to their employment of mordants, either acid or alkali, and yet it is almost certain that they must have used one or the other, or both, to fix the colours, and render them permanent. The _gamins_ of Tyre employ to this day mordants of each sort; and an alkali derived from seaweed is mentioned by Pliny as made use of for fixing some dyes, though he does not distinctly tell us that it was known to the Phoenicians or employed in fixing the purple. What we chiefly learn from this writer as to the dyeing process is--first, that sometimes the liquid derived from the _murex_ only, sometimes that of the _purpura_ or _buccinum_ only, was applied to the material which it was wished to colour, while the most approved hue was produced by an application of both dyes separately. Secondly, we are told that the material, whatever it might be, was steeped in the dye for a certain number of hours, then withdrawn for a while, and afterwards returned to the vat and steeped a second time. The best Tyrian cloths were called _Dibapha_, i.e. "twice dipped;" and for the production of the true "Tyrian purple" it was necessary that the dye obtained from the _Buccinum_ should be used after that from the _Murex_ had been applied. The _Murex_ alone gave a dye that was firm, and reckoned moderately good; but the _Buccinum_ alone was weak, and easily washed out.

The actual tints produced from the shell-fish appear to have ranged from blue, through violet and purple, to crimson and rose. Scarlet could not be obtained, but was yielded by the cochineal insect. Even for the brighter sorts of crimson some admixture of the cochineal dye was necessary. The violet tint was not generally greatly prized, though there was a period in the reign of Augustus when it was the fashion; redder hues were commonly preferred; and the choicest of all is described as "a rich, dark purple, the colour of coagulated blood." A deep crimson was also in request, and seems frequently to be intended when the term purple ({porphureos}, _purpureus_) is used.

A third industry greatly affected by the Phoenicians was the manufacture of glass. According to Pliny, the first discovery of the substance was made upon the Phoenician coast by a body of sailors whom he no doubt regarded as Phoenicians. These persons had brought a cargo of natrum, which is the subcarbonate of soda, to the Syrian coast in the vicinity of Acre, and had gone ashore at the mouth of the river Belus to cook their dinner. Having lighted a fire upon the sand, they looked about for some stones to prop up their cooking utensils, but finding none, or none convenient for the purpose, they bethought themselves of utilising for the occasion some of the blocks of natrum with which their ship was laden. These were placed close to the fire, and the heat was sufficient to melt a portion of one of them, which, mixing with the siliceous sand at its base, produced a stream of glass. There is nothing impossible or even very improbable in this story; but we may question whether

the scene of it is rightly placed. Glass was manufactured in Egypt many centuries before the probable date of the Phoenician occupation of the Mediterranean coast; and, if the honour of the invention is to be assigned to a particular people, the Egyptians would seem to have the best claim to it. The process of glass-blowing is represented in tombs at Beni Hassan of very great antiquity, and a specimen of Egyptian glass is in existence bearing the name of a Usurtasen, a king of the twelfth dynasty. Natrum, moreover, was an Egyptian product, well known from a remote date, being the chief ingredient used in the various processes of embalming. Phoenicia has no natrum, and not even any vegetable alkali readily procurable in considerable quantity. There _may have been_ an accidental discovery of glass in Phoenicia, but priority of discovery belonged almost certainly to Egypt; and it is, upon the whole, most probable that Phoenicia derived from Egypt her knowledge both of the substance itself and of the method of making it.

Still, there can be no doubt that the manufacture was one on which the Phoenicians eagerly seized, and which they carried out on a large scale and very successfully. Sidon, according to the ancients, was the chief seat of the industry; but the best sand is found near Tyre, and both Tyre and Sarepta also seem to have been among the places where glassworks were early established. At Sarepta extensive banks of _debris_ have been found, consisting of broken glass of many colours, the waste beyond all doubt of a great glass manufactory; at Tyre, the traces of the industry are less extensive, but on the other hand we have historical evidence that it continued to be practised there into the middle ages.

The glass produced by the Phoenicians was of three kinds: first, transparent colourless glass, which the eye could see through; secondly, translucent coloured glass, through which light could pass, though the eye could not penetrate it so as to distinguish objects; and, thirdly, opaque glass, scarcely distinguishable from porcelain. Transparent glass was employed for mirrors, round plates being cast, which made very tolerable looking-glasses, when covered at the back by thin sheets of metal, and also for common objects, such as vases, urns, bottles, and jugs, which have been yielded in abundance by tombs of a somewhat late date in Cyprus. No great store, however, seems to have been set upon transparency, in which the Oriental eye saw no beauty; and the objects which modern research has recovered under this head at Tyre, in Cyprus, and elsewhere, seem the work of comparatively rude artists, and have little aesthetic merit. The shapes, however, are not inelegant.

The most beautiful of the objects in glass produced by the Phoenicians are the translucent or semi-transparent vessels of different kinds, most of them variously coloured, which have been found in Cyprus, at Camirus in Rhodes, and on the Syrian coast, near Beyrout and elsewhere. These comprise small flasks or bottles, from three to six inches long, probably intended to contain perfumes; small jugs (oenochoae) from three inches in height to five inches; vases of about the same size; amphorae pointed at the lower extremity; and other varieties. They are coloured, generally, either in longitudinal or in horizontal stripes and bands; but the bands often deviate from the straight line into zig-zags, which are always more or less irregular, like the zig-zags of the Norman builders, while sometimes they are deflected into crescents, or other curves, as particularly one resembling a willow-leaf. The colours are not very vivid, but are pleasing and well-contrasted; they are chiefly five--white, blue, yellow, green, and a purplish brown. Red scarcely appears, except in a very pale, pinkish form; and even in this form it is uncommon. Blue, on the other hand, is greatly affected, being sometimes used in the patterns, often taken for the ground, and occasionally, in two tints, forming both

groundwork and ornamentation. It is not often that more than three hues are found on the same vessel, and sometimes the hues employed are only two. There are instances, however, and very admirable instances, of the employment, on a single vessel, of four hues.

The colours were obtained, commonly, at any rate, from metallic oxides. The ordinary blue employed is cobalt, though it is suspected that there was an occasional use of copper. Copper certainly furnished the greens, while manganese gave the brown, which shades off into purple and into black. The beautiful milky white which forms the ground tint of some vases is believed to have been derived from the oxide of tin, or else from phosphate of chalk. It is said that the colouring matter of the patterns does not extend through the entire thickness of the glass, but lies only on the outer surface, being a later addition to the vessels as first made.

Translucent coloured glass was also largely produced by the Phoenicians for beads and other ornaments, and also for the imitation of gems. The huge emerald of which Herodotus speaks, as "shining with great brilliancy at night" in the temple of Melkarth at Tyre, was probably a glass cylinder, into which a lamb was introduced by the priests. In Phoenician times the pretended stone is quite as often a glass paste as a real gem, and the case is the same with the scarabs so largely used as seals. In Phoenician necklaces, glass beads alternate frequently with real agates, onyxes, and crystals; while sometimes glass in various shapes is the only material employed. A necklace found at Tharros in Sardinia, and now in the collection of the Louvre, which is believed to be of Phoenician manufacture, is composed of above forty beads, two cylinders, four pendants representing heads of bulls, and one representing the face of a man, all of glass. Another, found by M. Renan in Phoenicia itself, is made up of glass beads imitating pearls, intermixed with beads of cornaline and agate.

Another class of glass ornaments consists of small flat _plaques_ or plates, pierced with a number of fine holes, which appear to have been sewn upon garments. These are usually patterned, sometimes with spirals, sometimes with rosettes, occasionally, though rarely, with figures. Messrs. Perrot and Chipiez represent one in their great work upon ancient art, where almost the entire field is occupied by a winged griffin, standing upright on its two hind legs, and crowned with a striped cap, or turban.

Phoenician opaque glass is comparatively rare, and possesses but little beauty. It was rendered opaque in various ways. Messrs. Perrot and Chipiez found that in a statue of Serapis, which they analysed, the glass was mixed with bronze in the proportions of ten to three. An opaque material of a handsome red colour was thus produced, which was heavy and exceedingly hard.

The methods pursued by the Phoenician glass-manufacturers were probably much the same as those which are still employed for the production of similar objects, and involved the use of similar implements, as the blowpipe, the lathe, and the graver. The materials having been procured, they were fused together in a crucible or melting-pot by the heat of a powerful furnace. A blowpipe was then introduced into the viscous mass, a portion of which readily attached itself to the implement, and so much glass was withdrawn as was deemed sufficient for the object which it was designed to manufacture. The blower then set to work, and blew hard into the pipe until the glass at its lower extremity began to expand and gradually took a pear-shaped form, the material partially coolling and hardening, but still retaining a good deal of softness and pliability. While in this condition, it was detached from the pipe, and modelled with pincers or with the hand into the shape required, after which it was polished, and perhaps sometimes cut by means of the turning-lathe. Sand and emery were the chief polishers, and by their help a

surface was produced, with which little fault could be found, being smooth, uniform, and brilliant. Thus the vessel was formed, and if no further ornament was required, the manufacture was complete--a jug, vase, alabastron, amphora, was produced, either transparent or of a single uniform tint, which might be white, blue, brown, green, &c., according to the particular oxide which had been thrown, with the silica and alkali, into the crucible. Generally, however, the manufacturer was not content with so simple a product: he aimed not merely at utility, but at beauty, and proceeded to adorn the work of his hands--whatever it was--with patterns which were for the most part in good taste and highly pleasing. These patterns he first scratched on the outer surface of the vessel with a graving tool; then, when he had made his depressions deep enough, he took threads of coloured glass, and having filled up with the threads the depressions which he had made, he subjected the vessel once more to such a heat that the threads were fused, and attached themselves to the ground on which they had been laid. In melting they would generally more than fill the cavities, overflowing them, and protruding from them, whence it was for the most part necessary to repeat the polishing process, and to bring by means of abrasion the entire surface once more into uniformity. There are cases where this has been incompletely done and where the patterns project; there are others where the threads have never thoroughly melted into the ground, and where in the course of time they have partially detached themselves from it; but in general the fusion and subsequent polishing have been all that could be wished, and the patterns are perfectly level with the ground and seem one with it.

The running of liquid glass into moulds, so common nowadays, does not seem to have been practised by the Phoenicians, perhaps because their furnaces were not sufficiently hot to produce complete liquefaction. But--if this was so--the pressure of the viscous material into moulds cannot have been unknown, since we have evidence of the existence of moulds, and there are cases where several specimens of an object have evidently issued from a single matrix. Beads, cylinders, pendants, scarabs, amulets, were probably, all of them, made in this way, sometimes in translucent, sometimes in semi-opaque glass, as perhaps were also the _plaques_ which have been already described.

The ceramic art of the Phoenicians is not very remarkable. Phoenicia Proper is deficient in clay of a superior character, and it was probably a very ordinary and coarse kind of pottery that the Phoenician merchants of early times exported regularly in their trading voyages, both inside and outside the Mediterranean. We hear of their carrying this cheap earthenware northwards to the Cassiterides or Scilly Islands, and southwards to the isle of Cerne, which is probably Arguin, on the West African coast; nor can we doubt that they supplied it also to the uncivilised races of the Mediterranean--the Illyrians, Ligurians, Sicels, Sards, Corsicans, Spaniards, Libyans. But the fragile nature of the material, and its slight value, have caused its entire disappearance in the course of centuries, unless in the shape of small fragments; nor are these fragments readily distinguishable from those whose origin is different. Phoenicia Proper has furnished no earthen vessels, either whole or in pieces, that can be assigned to a time earlier than the Greco-Roman period, nor have any such vessels been found hitherto on Phoenician sites either in Sardinia, or in Corsica, or in Spain, or Africa, or Sicily, or Malta, or Gozzo. The only places that have hitherto furnished earthen vases or other vessels presumably Phoenician are Jerusalem, Camirus in Rhodes, and Cyprus; and it is from the specimens found at these sites that we must form our estimate of the Phoenician pottery.

The earliest specimens are of a moderately good clay, unglazed. They are regular in shape, being made by the help of a wheel, and for the most part not inelegant, though they

cannot be said to possess any remarkable beauty. Many are without ornament of any kind, being apparently mere jars, used for the storing away of oil or wine; they have sometimes painted or scratched upon them, in Phoenician characters, the name of the maker or owner. A few rise somewhat above the ordinary level, having handles of some elegance, and being painted with designs and patterns, generally of a geometrical character. A vase about six inches high, found at Jerusalem, has, between horizontal bands, a series of geometric patterns, squares, octagons, lozenges, triangles, pleasingly arranged, and painted in brown upon a ground which is of a dull grey. At the top are two rude handles, between which runs a line of zig-zag, while at the bottom is a sort of stand or base. The shape is heavy and inelegant.

Another vase of a similar character to this, but superior in many respects, was found by General Di Cesnola at Dali (Idalium), and is figured in his "Cyprus." This vase has the shape of an urn, and is ornamented with horizontal bands, except towards the middle, where it has its greatest diameter, and exhibits a series of geometric designs. In the centre is a lozenge, divided into four smaller lozenges by a St. Andrew's cross; other compartments are triangular, and are filled with a chequer of black and white, resembling the squares of a chessboard. Beyond, on either side, are vertical bands, diversified with a lozenge ornament. Two hands succeed, of a shape that is thought to have "a certain elegance." There is a rim, which might receive a cover, at top, and at bottom a short pedestal. The height of the vase is about thirteen inches.

In many of the Cyprian vases having a geometric decoration, the figures are not painted on the surface but impressed or incised. Messrs. Perrot and Chipiez regard this form of ornamentation as the earliest; but the beauty and finish of several vases on which it occurs is against the supposition. There is scarcely to be found, even in the range of Greek art, a more elegant form than that of the jug in black clay brought by General Di Cesnola from Alambra and figured both in his "Cyprus" and in the "Histoire de l'Art." Yet its ornamentation is incised. If, then, incised patterning preceded painted in Phoenicia, at any rate it held its ground after painting was introduced, and continued in vogue even to the time when Greek taste had largely influenced Phoenician art of every description.

The finest Phoenician efforts in ceramic art resemble either the best Egyptian or the best Greek. As the art advanced, the advantage of a rich glaze was appreciated, and specimens which seem to be Phoenician have all the delicacy and beauty of the best Egyptian faience. A cup found at Idalium, plain on the outside, is covered internally with a green enamel, on which are patterns and designs in black. In a medallion at the bottom of the cup is the representation of a marshy tract overgrown with the papyrus plant, whereof we see both the leaves and blossoms, while among them, rushing at full speed, is the form of a wild boar. The rest of the ornamentation consists chiefly of concentric circles; but between two of the circles is left a tolerably broad ring, which has a pattern consisting of a series of broadish leaves pointing towards the cup's centre. Nothing can be more delicate, or in better taste, than the entire design.

The most splendid of all the Cyprian vases was found at Curium, and has been already represented in this volume. It is an amphora of large dimensions, ornamented in part with geometrical designs, in part with compartments, in which are represented horses and birds. The form, the designs, and the general physiognomy of the amphora are considered to be in close accordance with Athenian vases of the most antique school. The resemblance is so great that some have supposed the vase to have been an importation from Attica into Cyprus; but such

conjectures are always hazardous; and the principal motives of the design are so frequent on the Cyprian vases, that the native origin of the vessel is at least possible, and the judgment of some of the best critics seems to incline in this direction.

Still, on the whole, the Cyprian ceramic art is somewhat disappointing. What is original in it is either grotesque, as the vases in the shape of animals, or those crowned by human heads, or those again which have for spout a female figure pouring liquid out of a jug. What is superior has the appearance of having been borrowed. Egyptian, Assyrian, and Greek art, each in turn, furnished shapes, designs, and patterns to the Phoenician potters, who readily adopted from any and every quarter the forms and decorations which hit their fancy. Their fancy was, predominantly, for the _bizarre_ and the extravagant. Vases in the shape of helmets, in the shape of barrels, in the shape of human heads, have little fitness, and in the Cyprian specimens have little beauty; the mixture of Assyrian with Egyptian forms is incongruous; the birds and beasts represented are drawn with studied quaintness, a quaintness recalling the art of China and Japan. If there is elegance in some of the forms, it is seldom a very pronounced elegance; and, where the taste is best, the suspicion continually arises that a foreign model has been imitated. Moreover, from first to last the art makes little progress. There seems to have been an arrest of development. The early steps are taken, but at a certain point stagnation sets in; there is no further attempt to improve or advance; the artists are content to repeat themselves, and reproduce the patterns of the past. Perhaps there was no demand for ceramic art of a higher order. At any rate, progress ceases, and while Greece was rising to her grandest efforts, Cyprus, and Phoenicia generally, were content to remain stationary.

Besides their ornamental metallurgy, which has been treated of in a former chapter, the Phoenicians largely employed several metals, especially bronze and copper, in the fabrication of vessels for ordinary use, of implements, arms, toilet articles, furniture, &c. The vessels include paterae, bowls, jugs, amphorae, and cups; the implements, hatchets, adzes, knives, and sickles; the arms, spearheads, arrowheads, daggers, battle-axes, helmets, and shields; the toilet articles, mirrors, hand-bells, buckles, candlesticks, &c.; the furniture, tall candelabra, tripods, and thrones. The bronze is of an excellent quality, having generally about nine parts of copper to one of tin; and there is reason to believe that by the skilful tempering of the Phoenician metallurgists, it attained a hardness which was not often given it by others. The Cyprian shields were remarkable. They were of a round shape, slightly convex, and instead of the ordinary boss, had a long projecting cone in the centre. An actual shield, with the cone perfect, was found by General Di Cesnola at Amathus, and a projection of the same kind is seen in several of the Sardinian bronze and terra-cotta statuettes. Shields were sometimes elaborately embossed, in part with patterning, in part with animal and vegetable forms. Helmets were also embossed with care, and sometimes inscribed with the name of the maker or the owner.

Some remains of swords, probably Phoenician, have been found in Sardinia. They vary from two feet seven inches to four feet two inches in length. The blade is commonly straight, and very thick in the centre, but tapers off on both sides to a sharp edge. The point is blunt, so that the intention cannot have been to use the weapon both for cutting and thrusting, but only for the former. It would scarcely make such a clean cut as a modern broadsword, but would no doubt be equally effectual for killing or disabling. Another weapon, found in Sardinia, and sometimes called a sword, is more properly a knife or dagger. In length it does not exceed seven or eight inches, and of this length more than a third is occupied by the handle. Below the handle the blade broadens for about an inch or an inch and a half; after this it

contracts, and tapers gently to a sharp point. Such a weapon appears sometimes in the hand of a statuette.

The bronze articles of the toilet recovered by recent researches in Cyprus and elsewhere are remarkable. The handle of a mirror found in Cyprus, and now in the Museum of New York, possesses considerable merit. It consists mainly of a female figure, naked, and standing upon a frog. In her hands she holds a pair of cymbals, which she is in the act of striking together. A ribbon, passed over her left shoulder, is carried through a ring, from which hangs a seal. On her arms and shoulders appear to have stood two lions, which formed side supports to the mirror that was attached to the figure's head. If the face of the cymbal-player cannot boast of much beauty, and her figure is thought to "lack distinction," still it is granted that the _tout ensemble_ of the work was not without originality, and may have possessed a certain amount of elegance. The frog is particularly well modelled.

Some candlesticks found in the Treasury of Curium, and a tripod from the same place, seem to deserve a short notice. The candlesticks stand upon a sort of short pillar as a base, above which is the blossom of a flower inverted, a favourite Phoenician ornament. From this rises the lamp-stand, composed of three leaves, which curl outwards, and support between them a ring into which the bottom of the lamp fitted. The tripod is more elaborate. The legs, which are fluted, bulge considerably at the top, after which they bend inwards, and form a curve like one half of a Cupid's bow. To retain them in place, they are joined together by a sort of cross-bar, about half-way in their length; while, to keep them steady, they are made to rest on large flat feet. The circular hoop which they support is of some width, and is ornamented along its entire course with a zig-zag. From the hoop depend, half-way in the spaces between the legs, three rings, from each of which there hangs a curious pendant.

Besides copper and bronze, the Phoenicians seem to have worked in lead and iron, but only to a small extent. Iron ore might have been obtained in some parts of their own country, but appears to have been principally derived from abroad, especially from Spain. It was worked up chiefly, so far as we know, into arms offensive and defensive. The sword of Alexander, which he received as a gift from the king of Citium, was doubtless in this metal, which is the material of a sword found at Amathus, and of numerous arrowheads. We are also told that Cyprus furnished the iron breast-plates worn by Demetrius Poliorcetes; and in pre-Homeric times it was a Phoenician--Cinyras--who gave to Agamemnon his breast-plate of steel, gold, and tin. That more remains of iron arms and implements have not been found on Phoenician sites is probably owing to the rapid oxydisation of the metal, which consequently decays and disappears. The Hiram who was sent to assist Solomon in building and furnishing the Temple of Jerusalem was, we must remember, "skilful to work," not only "in gold, and silver, and bronze," but also "in iron."

Lead was largely furnished to the Phoenicians by the Scilly Islands, and by Spain. It has not been found in any great quantity on Phoenician sites, but still appears occasionally. Sometimes it is a solder uniting stone with bronze; sometimes it exists in thin sheets, which may have been worn as ornaments. In Phoenicia Proper it has been chiefly met with in the shape of coffins, which are apparently of a somewhat late date. They are formed of several sheets placed one over the other and then soldered together. There is generally on the lid and sides of the coffin an external ornamentation in a low relief, wherein the myth of Psyche is said commonly to play a part; but the execution is mediocre, and the designs themselves have little merit.

9. Ships, Navigation, and Commerce

The first attempts of the Phoenicians to navigate the sea which washed their coast

were probably as clumsy and rude as those of other primitive nations. They are said to have voyaged from island to island, in their original abodes within the Persian Gulf, by means of rafts. When they reached the shores of the Mediterranean, it can scarcely have been long ere they constructed boats for fishing and coasting purposes, though no doubt such boats were of a very rude construction. Probably, like other races, they began with canoes, roughly hewn out of the trunk of a tree. The torrents which descended from Lebanon would from time to time bring down the stems of fallen trees in their flood-time; and these, floating on the Mediterranean waters, would suggest the idea of navigation. They would, at first, be hollowed out with hatchets and adzes, or else with fire; and, later on, the canoes thus produced would form the models for the earliest efforts in shipbuilding. The great length, however, would soon be found unnecessary, and the canoe would give place to the boat, in the ordinary acceptation of the term. There are models of boats among the Phoenician remains which have a very archaic character, and may give us some idea of the vessels in which the Phoenicians of the remoter times braved the perils of the deep. They have a keel, not ill shaped, a rounded hull, bulwarks, a beak, and a high seat for the steersman. The oars, apparently, must have been passed through interstices in the bulwark.

From this rude shape the transition was not very difficult to the bark represented in the sculptures of Sargon, which is probably a Phoenician one. Here four rowers, standing to their oars, impel a vessel having for prow the head of a horse and for stern the tail of a fish, both of them rising high above the water. The oars are curved, like golf or hockey-sticks, and are worked from the gunwale of the bark, though there is no indication of rowlocks. The vessel is without a rudder; but it has a mast, supported by two ropes which are fastened to the head and stern. The mast has neither sail nor yard attached to it, but is crowned by what is called a "crow's nest"--a bell-shaped receptacle, from which a slinger or archer might discharge missiles against an enemy.

A vessel of considerably greater size than this, but of the same class--impelled, that is, by one bank of oars only--is indicated by certain coins, which have been regarded by some critics as Phoenician, by others as belonging to Cilicia. These have a low bow, but an elevated stern; the prow exhibits a beak, while the stern shows signs of a steering apparatus; the number of the oars on each side is fifteen or twenty. The Greeks called these vessels triaconters or penteconters. They are represented without any mast on the coins, and thus seem to have been merely row-boats of a superior character.

About the time of Sennacherib (B.C. 700), or a little earlier, some great advances seem to have been made by the Phoenician shipbuilders. In the first place, they introduced the practice of placing the rowers on two different levels, one above the other; and thus, for a vessel of the same length, doubling the number of the rowers. Ships of this kind, which the Greeks called "biremes," are represented in Sennacherib's sculptures as employed by the inhabitants of a Phoenician city, who fly in them at the moment when their town is captured, and so escape their enemy. The ships are of two kinds. Both kinds have a double tier of rowers, and both are guided by two steering oars thrust out from the stern; but while the one is still without mast or sail, and is rounded off in exactly the same way both at stem and stern, the other has a mast, placed about midship, a yard hung across it, and a sail close reefed to the yard, while the bow is armed with a long projecting beak, like a ploughshare, which must have been capable of doing terrible damage to a hostile vessel. The rowers, in both classes of ships, are represented as only eight or ten upon a side; but this may have arisen from artistic necessity, since a greater number of figures could not have been introduced without confusion. It is thought that in the beaked

vessel we have a representation of the Phoenician war-galley; in the vessel without a beak, one of the Phoenician transport.

A painting on a vase found in Cyprus exhibits what would seem to have been a pleasure-vessel. It is unbeaked, and without any sign of oars, except two paddles for steering with. About midship is a short mast, crossed by a long spar or yard, which carries a sail, closely reefed along its entire length. The yard and sail are managed by means of four ropes, which are, however, somewhat conventionally depicted. Both the head and stern of the vessel rise to a considerable height above the water, and the stern is curved, very much as in the war-galleys. It perhaps terminated in the head of a bird.

According to the Greek writers, Phoenician vessels were mainly of two kinds, merchant ships and war-vessels. The merchant ships were of a broad, round make, what our sailors would call "tubs," resembling probably the Dutch fishing-boats of a century ago. They were impelled both by oars and sails, but depended mainly on the latter. Each of them had a single mast of moderate height, to which a single sail was attached; this was what in modern times is called a "square sail," a form which is only well suited for sailing with when the wind is directly astern. It was apparently attached to the yard, and had to be hoisted together with the yard, along which it could be closely reefed, or from which it could be loosely shaken out. It was managed, no doubt, by ropes attached to the two lower corners, which must have been held in the hands of sailors, as it would have been most dangerous to belay them. As long as the wind served, the merchant captain used his sail; when it died away, or became adverse, he dropped yard and sail on to his deck, and made use of his oars.

Merchant ships had, commonly, small boats attached to them, which afforded a chance of safety if the ship foundered, and were useful when cargoes had to be landed on a shelving shore. We have no means of knowing whether these boats were hoisted up on deck until they were wanted, or attached to the ships by ropes and towed after them; but the latter arrangement is the more probable.

The war-galleys of the Phoenicians in the early times were probably of the class which the Greeks called triaconters or penteconters, and which are represented upon the coins. They were long open rowboats, in which the rowers sat, all of them, upon a level, the number of rowers on either side being generally either fifteen or twenty-five. Each galley was armed at its head with a sharp metal spike, or beak, which was its chief weapon of offence, vessels of this class seeking commonly to run down their enemy. After a time these vessels were superseded by biremes, which were decked, had masts and sails, and were impelled by rowers sitting at two different elevations, as already explained. Biremes were ere long superseded by triremes, or vessels with three banks of oars, which are said to have been invented at Corinth, but which came into use among the Phoenicians before the end of the sixth century B.C. In the third century B.C. the Carthaginians employed in war quadriremes, and even quinqueremes; but there is no evidence of the employment of either class of vessel by the Phoenicians of Phoenicia Proper.

The superiority of the Phoenician ships to others is generally allowed, and was clearly shown when Xerxes collected his fleet of twelve hundred and seven triremes against Greece. The fleet included contingents from Phoenicia, Cyprus, Egypt, Cilicia, Pamphylia, Lycia, Caria, Ionia, AEolis, and the Greek settlements about the Propontis. When it reached the Hellespont, the great king, anxious to test the quality of his ships and sailors, made proclamation for a grand sailing match, in which all who liked might contend. Each contingent probably--at any rate, all that prided themselves on their nautical skill--selected its best vessel, and entered it for the coming race; the king himself, and his

grandees and officers, and all the army, stood or sat along the shore to see: the race took place, and was won by the Phoenicians of Sidon. Having thus tested the nautical skill of the various nations under his sway, the great king, when he ventured his person upon the dangerous element, was careful to embark in a Sidonian galley.

A remarkable testimony to the excellence of the Phoenician ships with respect to internal arrangements is borne by Xenophon, who puts the following words into the mouth of Ischomachus, a Greek: "I think that the best and most perfect arrangement of things that I ever saw was when I went to look at the great Phoenician sailing-vessel; for I saw the largest amount of naval tackling separately disposed in the smallest stowage possible. For a ship, as you well know, is brought to anchor, and again got under way, by a vast number of wooden implements and of ropes and sails the sea by means of a quantity of rigging, and is armed with a number of contrivances against hostile vessels, and carries about with it a large supply of weapons for the crew, and, besides, has all the utensils that a man keeps in his dwelling-house, for each of the messes. In addition, it is laden with a quantity of merchandise which the owner carries with him for his own profit. Now all the things which I have mentioned lay in a space not much bigger than a room which would conveniently hold ten beds. And I remarked that they severally lay in a way that they did not obstruct one another, and did not require anyone to search for them; and yet they were neither placed at random, nor entangled one with another, so as to consume time when they were suddenly wanted for use. Also, I found the captain's assistant, who is called 'the look-out man,' so well acquainted with the position of all the articles, and with the number of them, that even when at a distance he could tell where everything lay, and how many there were of each sort, just as anyone who has learnt to read can tell the number of letters in the name of Socrates and the proper place for each of them. Moreover, I saw this man, in his leisure moments, examining and testing everything that a vessel needs when at sea; so, as I was surprised, I asked him what he was about, whereupon he replied--
'Stranger, I am looking to see, in case anything should happen, how everything is arranged in the ship, and whether anything is wanting, or is inconveniently situated; for when a storm arises at sea, it is not possible either to look for what is wanting, or to put to right what is arranged awkwardly.'"

Phoenician ships seem to have been placed under the protection of the Cabeiri, and to have had images of them at their stem or stern or both. These images were not exactly "figure-heads," as they are sometimes called. They were small, apparently, and inconspicuous, being little dwarf figures, regarded as amulets that would preserve the vessel in safety. We do not see them on any representations of Phoenician ships, and it is possible that they may have been no larger than the bronze or glazed earthenware images of Phthah that are so common in Egypt. The Phoenicians called them _pittuchim_, "sculptures," whence the Greek {pataikoi} and the French _fetiche_.

The navigation of the Phoenicians, in early times, was no doubt cautious and timid. So far from venturing out of sight of land, they usually hugged the coast, ready at any moment, if the sea or sky threatened, to change their course and steer directly for the shore. On a shelving coast they were not at all afraid to run their ships aground, since, like the Greek vessels, they could be easily pulled up out of reach of the waves, and again pulled down and launched, when the storm was over and the sea calm once more. At first they sailed, we may be sure, only in the daytime, casting anchor at nightfall, or else dragging their ships up upon the beach, and so awaiting the dawn. But after a time they grew more bold. The sea became familiar to them, the positions of coasts and islands relatively one to another better known, the character of the seasons, the signs of unsettled or settled

weather, the conduct to pursue in an emergency, better apprehended. They soon began to shape the course of their vessels from headland to headland, instead of always creeping along the shore, and it was not perhaps very long before they would venture out of sight of land, if their knowledge of the weather satisfied them that the wind might be trusted to continue steady, and if they were well assured of the direction of the land that they wished to make. They took courage, moreover, to sail in the night, no less than in the daytime, when the weather was clear, guiding themselves by the stars, and particularly by the Polar star, which they discovered to be the star most nearly marking the true north. A passage of Strabo seems to show that--in the later times at any rate--they had a method of calculating the rate of a ship's sailing, though what the method was is wholly unknown to us. It is probable that they early constructed charts and maps, which however they would keep secret through jealousy of their commercial rivals.

The Phoenicians for some centuries confined their navigation within the limits of the Mediterranean, the Propontis, and the Euxine, land-locked seas, which are tideless and far less rough than the open ocean. But before the time of Solomon they had passed the Pillars of Hercules, and affronted the dangers of the Atlantic. Their frail and small vessels, scarcely bigger than modern fishing-smacks, proceeded southwards along the West African coast, as far as the tract watered by the Gambia and Senegal, while northwards they coasted along Spain, braved the heavy seas of the Bay of Biscay, and passing Cape Finisterre, ventured across the mouth of the English Channel to the Cassiterides. Similarly, from the West African shore, they boldly steered for the Fortunate Islands (the Canaries), visible from certain elevated points of the coast, though at 170 miles distance. Whether they proceeded further, in the south to the Azores, Madeira, and the Cape de Verde Islands, in the north to the coast of Holland, and across the German Ocean to the Baltic, we regard as uncertain. It is possible that from time to time some of the more adventurous of their traders may have reached thus far; but their regular, settled, and established navigation did not, we believe, extend beyond the Scilly Islands and coast of Cornwall to the north-west, and to the south-west Cape Non and the Canaries.

The commerce of the Phoenicians was carried on, to a large extent, by land, though principally by sea. It appears from the famous chapter of Ezekiel which describes the riches and greatness of Tyre in the sixth century B.C., that almost the whole of Western Asia was penetrated by the Phoenician caravans, and laid under contribution to increase the wealth of the Phoenician traders.

"Thou, son of man, (we read) take up a lamentation for Tyre, and say unto her, O thou that dwellest at the entry of the sea, Which art the merchant of the peoples unto many isles, Thus saith the Lord God, Thou, O Tyre, hast said, I am perfect in beauty. Thy borders are in the heart of the sea; Thy builders have perfected thy beauty. They have made all thy planks of fir-trees from Senir; They have taken cedars from Lebanon to make a mast for thee Of the oaks of Bashan have they made thine oars; They have made thy benches of ivory, Inlaid in box-wood, from the isles of Kittim. Of fine linen with broidered work from Egypt was thy sail, That it might be to thee for an ensign; Blue and purple from the isles of Elishah was thy awning. The inhabitants of Zidon and of Arvad were thy rowers; Thy wise men, O Tyre, were in thee--they were thy pilots. The ancients of Gebal, and their wise men, were thy calkers; All the ships of the sea, with their mariners, were in thee, That they might occupy thy merchandise. Persia, and Lud, and Phut were in thine army, thy men of war; They hanged the shield and helmet in thee; They set forth thy comeliness. The men of Arvad, with thine army, were upon thy walls round about; And the Gammadim were in thy towers;

They hanged their shields upon thy walls round about; They have brought to perfection thy beauty. Tarshish was thy merchant by reason of the multitude of all kinds of riches; With silver, iron, tin, and lead, they traded for thy wares. Javan, Tubal, and Meshech, they were thy traffickers; They traded the persons of men, and vessels of brass, for thy merchandise. They of the house of Togarmah traded for thy wares, With horses, and with chargers, and with mules. The men of Dedan were thy traffickers; many isles were the mart of thy hands; They brought thee in exchange horns of ivory, and ebony. Syria was thy merchant by reason of the multitude of thy handiworks; They traded for thy wares with emeralds, purple, and broidered work, And with fine linen, and coral, and rubies. Judah, and the land of Israel, they were thy traffickers; They traded for thy merchandise wheat of Minnith, And Pannag, and honey, and oil, and balm. Damascus was thy merchant for the multitude of thy handiworks; By reason of the multitude of all kinds of riches; With the wine of Helbon, and white wool. Dedan and Javan traded with yarn for thy wares; Bright iron, and cassia, and calamus were among thy merchandise. Dedan was thy trafficker in precious cloths for riding; Arabia, and all the princes of Kedar, they were the merchants of thy hand, In lambs, and rams, and goats, in these were they thy merchants. The traffickers of Sheba and Raamah, they were thy traffickers; They traded for thy wares with chief of all spices, And with all manner of precious stones, and gold. Haran, and Canneh, and Eden, the traffickers of Sheba, Asshur and Chilmad, were thy traffickers: They were thy traffickers in choice wares, In wrappings of blue and broidered work, and in chests of rich apparel, Bound with cords, and made of cedar, among thy merchandise. The ships of Tarshish were thy caravans for they merchandise; And thou wast replenished, and made very glorious, in the heart of the sea. Thy rowers have brought thee into great waters; The east wind hath broken thee in the heart of the sea. Thy reaches, and thy wares, thy merchandise, thy mariners, and thy pilots, Thy calkers, and the occupiers of thy merchandise, With all the men of war, that are in thee, Shall fall into the heart of the seas in the day of thy ruin. At the sound of thy pilot's cry the suburb's shall shake; And all that handle the oar, the mariners, and all the pilots of the sea, They shall come down from their ships, they shall stand upon the land, And shall cause their voice to be heard over thee, and shall cry bitterly, And shall cast up dust upon their heads, and wallow in the ashes; And they shall make themselves bald for thee, and gird them with sackcloth, And they shall weep for thee in bitterness of soul with bitter mourning. And in their wailing they shall take up a lamentation for thee, And lament over thee saying, Who is there like Tyre, Like her that is brought to silence in the midst of the sea? When thy wares went forth out of the seas, thou filledst many peoples; Thou didst enrich the kings of the earth with thy merchandise and thy riches. In the time that thou was broken by the seas in the depths of the waters, Thy merchandise, and all thy company, did fall in the midst of thee, And the inhabitants of the isles are astonished at thee, And their kings are sore afraid, they are troubled in their countenance, The merchants that are among the peoples, hiss at thee; Thou art become a terror; and thou shalt never be any more."

Translating this glorious burst of poetry into prose, we find the following countries mentioned as carrying on an active trade with the Phoenician metropolis:--Northern Syria, Syria of Damascus, Judah and the land of Israel, Egypt, Arabia, Babylonia, Assyria, Upper Mesopotamia, Armenia, Central Asia Minor, Ionia, Cyprus, Hellas or Greece, and Spain. Northern Syria furnishes the Phoenician merchants with _butz_, which is

translated "fine linen," but is perhaps rather cotton, the "tree-wool" of Herodotus; it also supplies embroidery, and certain precious stones, which our translators have considered to be coral, emeralds, and rubies. Syria of Damascus gives the "wine of Helbon"--that exquisite liquor which was the only sort that the Persian kings would condescend to drink--and "white wool," the dainty fleeces of the sheep and lambs that fed on the upland pastures of Hermon and Antilibanus. Judah and the land of Israel supply corn of superior quality, called "corn of Minnith"--corn, i.e. produced in the rich Ammonite country--together with _pannag_, an unknown substance, and honey, and balm, and oil. Egypt sends fine linen, one of her best known products--sometimes, no doubt, plain, but often embroidered with bright patterns, and employed as such embroidered fabrics were also in Egypt, for the sails of pleasure-boats. Arabia provides her spices, cassia, and calamus (or aromatic reed), and, beyond all doubt, frankincense, and perhaps cinnamon and ladanum. She also supplies wool and goat's hair, and cloths for chariots, and gold, and wrought iron, and precious stones, and ivory, and ebony, of which the last two cannot have been productions of her own, but must have been imported from India or Abyssinia. Babylonia and Assyria furnish "wrappings of blue, embroidered work, and chests of rich apparel." Upper Mesopotamia partakes in this traffic. Armenia gives horses and mules. Central Asia Minor (Tubal and Meshech) supplies slaves and vessels of brass, and the Greeks of Ionia do the like. Cyprus furnishes ivory, which she must first have imported from abroad. Greece Proper sends her shell-fish, to enable the Phoenician cities to increase their manufacture of the purple dye. Finally, Spain yields silver, iron, tin, and lead--the most useful of the metals--all of which she is known to have produced in abundance.

With the exception of Egypt, Ionia, Cyprus, Hellas, and Spain, the Phoenician intercourse with these places must have been carried on wholly by land. Even with Egypt, wherewith the communication by sea was so facile, there seems to have been also from a very early date a land commerce. The land commerce was in every case carried on by caravans. Western Asia has never yet been in so peaceful and orderly condition as to dispense prudent traders from the necessity of joining together in large bodies, well provisioned and well armed, when they are about to move valuable goods any considerable distance. There have always been robber-tribes in the mountain tracts, and thievish Arabs upon the plains, ready to pounce on the insufficiently protected traveller, and to despoil him of all his belongings. Hence the necessity of the caravan traffic. As early as the time of Joseph--probably about B.C. 1600--we find a _company_ of the Midianites on their way from Gilead, with their camels bearing spicery, and balm, and myrrh, going to carry it down to Egypt. Elsewhere we hear of the "travelling _companies_ of the Dedanim," of the men of Sheba bringing their gold and frankincense; of a multitude of camels coming up to Palestine with wood from Kedar and Nebaioth. Heeren is entirely justified in his conclusion that the land trade of the Phoenicians was conducted by "large companies or caravans, since it could only have been carried on in this way."

The nearest neighbours of the Phoenicians on the land side were the Jews and Israelites, the Syrians of Damascus, and the people of Northern Syria, or the Orontes valley and the tract east of it. From the Jews and Israelites the Phoenicians seem to have derived at all times almost the whole of the grain which they were forced to import for their sustenance. In the time of David and Solomon it was chiefly for wheat and barley that they exchanged the commodities which they exported, in that of Ezekiel it was primarily for "wheat of Minnith;" and a similar trade is noted on the return of the Jews from the captivity, and in the first century of our era. But besides grain they also imported from Palestine at some periods wine, oil, honey, balm, and oak timber. Western Palestine was

notoriously a land not only of corn, but also of wine, of olive oil, and of honey, and could readily impart of its superfluity to its neighbour in time of need. The oaks of Bashan are very abundant, and seem to have been preferred by the Phoenicians to their own oaks as the material of oars. Balm, or basalm, was a product of the land of Gilead, and also of the lower Jordan valley, where it was of superior quality.

From the Damascene Syrians we are told that Phoenicia imported "wine of Helbon" and "white wool." The "wine of Helbon" is reasonably identified with that {oinos Khalubonios} which is said to have been the favourite beverage of the Persian kings. It was perhaps grown in the neighbourhood of Aleppo. The "white wool" may have been furnished by the sheep that cropped the slopes of the Antilibanus, or by those fed on the fine grass which clothes most of the plain at its base. The fleece of these last is, according to Heeren, "the finest known, being improved by the heat of the climate, the continual exposure to the open air, and the care commonly bestowed upon the flocks." From the Syrian wool, mixed perhaps with some other material, seems to have been woven the fabric known, from the city where it was commonly made, as "damask."

According to the existing text of Ezekiel, Syria Proper "occupied in the fairs" of Phoenicia with cotton, with embroidered robes, with purple, and with precious stones. The valley of the Orontes is suitable for the cultivation of cotton; and embroidered robes would naturally be produced in the seat of an old civilisation, which Syria certainly was. Purple seems somewhat out of place in the enumeration; but the Syrians may have gathered the _murex_ on their seaboard between Mt. Casius and the Gulf of Issus, and have sold what they collected in the Phoenician market. The precious stones which Ezekiel assigns to them are difficult of identification, but may have been furnished by Casius, Bargylus, or Amanus. These mountains, or at any rate Casius and Amanus, are of igneous origin, and, if carefully explored, would certainly yield gems to the investigator. At the same time it must be acknowledged that Syria had not, in antiquity, the name of a gem-producing country; and, so far, the reading of "Edom" for "Aram," which is preferred by many, may seem to be the more probable.

The commerce of the Phoenicians with Egypt was ancient, and very extensive. "The wares of Egypt" are mentioned by Herodotus as a portion of the merchandise which they brought to Greece before the time of the Trojan War. The Tyrians had a quarter in the city of Memphis assigned to them, probably from an early date. According to Ezekiel, the principal commodity which Egypt furnished to Phoenicia was "fine linen"--especially the linen sails embroidered with gay patterns, which the Egyptian nobles affected for their pleasure-boats. They probably also imported from Egypt natron for their glass-works, papyrus for their documents, earthenware of various kinds for exportation, scarabs and other seals, statuettes and figures of gods, amulets, and in the later times sarcophagi. Their exports to Egypt consisted of wine on a large scale, tin almost certainly, and probably their peculiar purple fabrics, and other manufactured articles.

The Phoenician trade with Arabia was of especial importance, since not only did the great peninsula itself produce many of the most valuable articles of commerce, but it was also mainly, if not solely, through Arabia that the Indian market was thrown open to the Phoenician traders, and the precious commodities obtained for which Hindustan has always been famous. Arabia is _par excellence_ the land of spices, and was the main source from which the ancient world in general, and Phoenicia in particular, obtained frankincense, cinnamon, cassia, myrrh, calamus or sweet-cane, and ladanum. It has been doubted whether these commodities were, all of them, the actual produce of the

country in ancient times, and Herodotus has been in some degree discredited, but perhaps without sufficient reason. He is supported to a considerable extent by Theophrastus, the disciple of Aristotle, who says: "Frankincense, myrrh, and cassia grow in the Arabian districts of Saba and Hadramaut; frankincense and myrrh on the sides or at the foot of mountains, and in the neighbouring islands. The trees which produce them grow sometimes wild, though occasionally they are cultivated; and the frankincense-tree grows sometimes taller than the tree producing the myrrh." Modern authorities declare the frankincense-tree (_Boswellia thurifera_) to be still a native of Hadramaut; and there is no doubt that the myrrh-tree (_Balsamodendron myrrha_) also grows there. If cinnamon and cassia, as the terms are now understood, do not at present grow in Arabia, or nearer to Phoenicia than Hindustan, it may be that they have died out in the former country, or our modern use of the terms may differ from the ancient one. On the other hand, it is no doubt possible that the Phoenicians imagined all the spices which they obtained from Arabia to be the indigenous growth of the country, when in fact some of them were importations.

Next to her spices, Arabia was famous for the production of a superior quality of wool. The Phoenicians imported this wool largely. The flocks of Kedar are especially noted, and are said to have included both sheep and goats. It was perhaps a native woollen manufacture, in which Dedan traded with Tyre, and which Ezekiel notices as a trade in "cloths for chariots." Goat's hair was largely employed in the production of coverings for tents. Arabia also furnished Phoenicia with gold, with precious stones, with ivory, ebony, and wrought iron. The wrought iron was probably from Yemen, which was celebrated for its manufacture of sword blades. The gold may have been native, for there is much reason to believe that anciently the Arabian mountain ranges yielded gold as freely as the Ethiopian, with which they form one system; or it may have been imported from Hindustan, with which Arabia had certainly, in ancient times, constant communication. Ivory and ebony must, beyond a doubt, have been Arabian importations. There are two countries from which they may have been derived, India and Abyssinia. It is likely that the commercial Arabs of the south-east coast had dealings with both.

Of Phoenician imports into Arabia we have no account; but we may conjecture that they consisted principally of manufactured goods, cotton and linen fabrics, pottery, implements and utensils in metal, beads, and other ornaments for the person, and the like. The nomadic Arabs, leading a simple life, required but little beyond what their own country produced; there was, however, a town population in the more southern parts of the peninsula, to which the elegancies and luxuries of life, commonly exported by Phoenicia, would have been welcome.

The Phoenician trade with Babylonia and Assyria was carried on probably by caravans, which traversed the Syrian desert by way of Tadmor or Palmyra, and struck the Euphrates about Circesium. Here the route divided, passing to Babylon southwards along the course of the great river, and to Nineveh eastwards by way of the Khabour and the Sinjar mountain-range. Both countries seem to have supplied the Phoenicians with fabrics of extraordinary value, rich in a peculiar embroidery, and deemed so precious that they were packed in chests of cedar-wood, which the Phoenician merchants must have brought with them from Lebanon. The wares furnished by Assyria were in some cases exported to Greece, while no doubt in others they were intended for home consumption. They included cylinders in rock crystal, jasper, hematite, steatite, and other materials, which may sometimes have found purchasers in Phoenicia Proper, but appear to have been specially affected by the Phoenician colonists in Cyprus. On her part Phoenicia must have imported into Assyria and Babylonia the tin which was a necessary element in their

bronze; and they seem also to have found a market in Assyria for their own most valuable and artistic bronzes, the exquisite embossed paterae which are among the most precious of the treasures brought by Sir Austen Layard from Nineveh.

The nature of the Phoenician trade with Upper Mesopotamia is unknown to us; and it is not impossible that their merchants visited Haran, rather because it lay on the route which they had to follow in order to reach Armenia than because it possessed in itself any special attraction for them. Gall-nuts and manna are almost the only products for which the region is celebrated; and of these Phoenicia herself produced the one, while she probably did not need the other. But the natural route to Armenia was by way of the Coelesyrian valley, Aleppo and Carchemish, to Haran, and thence by Amida or Diarbekr to Van, which was the capital of Armenia in the early times.

Armenia supplied the Phoenicians with "horses of common and of noble breeds," and also with mules. Strabo says that it was a country exceedingly well adapted for the breeding of the horse, and even notes the two qualities of the animal that it produced, one of which he calls "Nisaean," though the true "Nisaean plain" was in Media. So large was the number of colts bred each year, and so highly were they valued, that, under the Persian monarchy the Great King exacted from the province, as a regular item of its tribute, no fewer than twenty thousand of them annually. Armenian mules seem not to be mentioned by any writer besides Ezekiel; but mules were esteemed throughout the East in antiquity, and no country would have been more likely to breed them than the mountain tract of Armenia, the Switzerland of Western Asia, where such surefooted animals would be especially needed.

Armenia adjoined the country of the Moschi and Tibareni--the Meshech and Tubal of the Bible. These tribes, between the ninth and the seventh centuries B.C., inhabited the central regions of Asia Minor and the country known later as Cappadocia. They traded with Tyre in the "persons of men" and in "vessels of brass" or copper. Copper is found abundantly in the mountain ranges of these parts, and Xenophon remarks on the prevalence of metal vessels in the portion of the region which he passed through--the country of the Carduchians. The traffic in slaves was one in which the Phoenicians engaged from very early times. They were not above kidnapping men, women, and children in one country and selling them into another; besides which they seem to have frequented regularly the principal slave marts of the time. They bought such Jews as were taken captive and sold into slavery by the neighbouring nations, and they looked to the Moschi and Tibareni for a constant supply of the commodity from the Black Sea region. The Caucasian tribes have always been in the habit of furnishing slave-girls to the harems of the East, and the Thracians, who were not confined to Europe, but occupied a great part of Asia Minor, regularly trafficked in their children.

Such was the extent of the Phoenician land trade, as indicated by the prophet Ezekiel, and such were, so far as is at present known, the commodities interchanged in the course of it. It is quite possible--nay, probable--that the trade extended much further, and certain that it must have included many other articles of commerce besides those which we have mentioned. The sources of our information on the subject are so few and scanty, and the notices from which we derive our knowledge for the most part so casual, that we may be sure what is preserved is but a most imperfect record of what was--fragments of wreck recovered from the sea of oblivion. It may have been a Phoenician caravan route which Herodotus describes as traversed on one occasion by the Nasamonians, which began in North Africa and terminated with the Niger and the city of Timbuctoo; and another, at which he hints as lying between the coast of the Lotus-eaters and Fezzan. Phoenician traders may have accompanied

and stimulated the slave hunts of the Garamantians, as Arab traders do those of the Central African nations at the present day. Again, it is quite possible that the Phoenicians of Memphis designed and organised the caravans which, proceeding from Egyptian Thebes, traversed Africa from east to west along the line of the "Salt Hills," by way of Ammon, Augila, Fezzan, and the Tuarik country to Mount Atlas. We can scarcely imagine the Egyptians showing so much enterprise. But these lines of traffic can be ascribed to the Phoenicians only by conjecture, history being silent on the subject.

The sea trade of the Phoenicians was still more extensive than their land traffic. It is divisible into two branches, their trade with their own colonists, and that with the natives of the various countries to which they penetrated in their voyages. The colonies sent out from Phoenicia were, except in the single instance of Carthage, trading settlements, planted where some commodity or commodities desired by the mother-country abounded, and were intended to secure to the mother-country the monopoly of such commodity or commodities. For instance, Cyprus was colonised for the sake of its copper mines and its timber; Cilicia and Lycia for their timber only; Thasos for its gold mines; Salamis and Cythera for the purple trade; Sardinia and Spain for their numerous metals; North Africa for its fertility and for the trade with the interior. Phoenicia expected to derive, primarily, from each colony the commodity or commodities which had caused the selection of the site. In return she supplied the colonists with her own manufactured articles; with fabrics in linen, wool, cotton, and perhaps to some extent in silk; with every variety of pottery, from dishes and jugs of the plainest and most simple kind to the most costly and elaborate vases and amphorae; with metal utensils and arms, with gold and silver ornaments, with embossed shields and paterae, with faince and glass, and also with any foreign products or manufactures that they desired and that the countries within the range of her influence could furnish. Phoenicia must have imported into Cyprus, to suit a peculiar Cyprian taste, the Egyptian statuettes, scarabs, and rings, and the Assyrian and Babylonian cylinders, which have been found there. The tin which she brought from the Cassiterides she distributed generally, for she did not discourage her colonists from manufacturing for themselves to some extent. There was probably no colony which did not make its own bronze vessels of the commoner sort and its own coarser pottery.

In her trade with the nations who peopled the coasts of the Mediterranean, the Propontis, and the Black Sea, Phoenicia aimed primarily at disposing to advantage of her own commodities, secondarily at making a profit in commodities which she had obtained from other countries, and thirdly on obtaining commodities which she might dispose of to advantage elsewhere. Where the nations were uncivilised, or in a low condition of civilisation, she looked to making a large profit by furnishing them at a cheap rate with all the simplest conveniences of life, with their pottery, their implements and utensils, their clothes, their arms, the ornaments of their persons and of their houses. Underselling the native producers, she soon obtained a monopoly of this kind of trade, drove the native products out of the market, and imposed her own instead, much as the manufacturers of Manchester, Birmingham, and the Potteries impose their calicoes, their cutlery, and their earthenware on the savages of Africa and Polynesia. Where culture was more advanced, as in Greece and parts of Italy, she looked to introduce, and no doubt succeeded in introducing, the best of her own productions, fabrics of crimson, violet, and purple, painted vases, embossed paterae, necklaces, bracelets, rings--"cunning work" of all manner of kinds--mirrors, glass vessels, and smelling-bottles. At the same time she also disposed at a profit of many of the wares that she had imported from foreign countries, which were advanced in certain branches of

art, as Egypt, Babylonia, Assyria, possibly India. The muslins and ivory of Hindustan, the shawls of Kashmir, the carpets of Babylon, the spices of Araby the Blest, the pearls of the Persian Gulf, the faience and the papyrus of Egypt, would be readily taken by the more civilised of the Western nations, who would be prepared to pay a high price for them. They would pay for them partly, no doubt, in silver and gold, but to some extent also in their own manufactured commodities, Attica in her ceramic products, Corinth in her "brass," Etruria in her candelabra and engraved mirrors, Argos in her highly elaborated ornaments. Or, in some cases, they might make return out of the store wherewith nature had provided them, Euboea rendering her copper, the Peloponnese her "purple," Crete her timber, the Cyrenaica its silphium.

Outside the Pillars of Hercules the Phoenicians had only savage nations to deal with, and with these they seem to have traded mainly for the purpose of obtaining certain natural products, either peculiarly valuable or scarcely procurable elsewhere. Their trade with the Scilly Islands and the coast of Cornwall was especially for the procuring of tin. Of all the metals, tin is found in the fewest places, and though Spain seems to have yielded some anciently, yet it can only have been in small quantities, while there was an enormous demand for tin in all parts of the old world, since bronze was the material almost universally employed for arms, tools, implements, and utensils of all kinds, while tin is the most important, though not the largest, element in bronze. From the time that the Phoenicians discovered the Scilly Islands--the "Tin Islands" (Cassiterides), as they called them--it is probable that the tin of the civilised world was almost wholly derived from this quarter. Eastern Asia, no doubt, had always its own mines, and may have exported tin to some extent, in the remoter times, supplying perhaps the needs of Egypt, Assyria, and Babylon. But, after the rich stores of the metal which our own islands possess were laid open, and the Phoenicians with their extensive commercial dealings, both in the West and in the East, became interested in diffusing it, British tin probably drove all other out of use, and obtained the monopoly of the markets wherever Phoenician influence prevailed. Hence the trade with the Cassiterides was constant, and so highly prized that a Phoenician captain, finding his ship followed by a Roman vessel, preferred running it upon the rocks to letting a rival nation learn the secret of how the tin-producing coast might be approached in safety. With the tin it was usual for the merchants to combine a certain amount of lead and a certain quantity of skins or hides; while they gave in exchange pottery, salt, and articles in bronze, such as arms, implements, and utensils for cooking and for the table.

If the Phoenicians visited, as some maintain that they did, the coasts of the Baltic, it must have been for the purpose of obtaining amber. Amber is thrown up largely by the waters of that land-locked sea, and at present especially abounds on the shore in the vicinity of Dantzic. It is very scarce elsewhere. The Phoenicians seem to have made use of amber in their necklaces from a very early date; and, though they might no doubt have obtained it by land-carriage across Europe to the head of the Adriatic, yet their enterprise and their commercial spirit were such as would not improbably have led them to seek to open a direct communication with the amber-producing region, so soon as they knew where it was situated. The dangers of the German Ocean are certainly not greater than those of the Atlantic; and if the Phoenicians had sufficient skill in navigation to reach Britain and the Fortunate Islands, they could have found no very serious difficulty in penetrating to the Baltic. On the other hand, there is no direct evidence of their having penetrated so far, and perhaps the Adriatic trade may have supplied them with as much amber as they needed.

The trade of the Phoenicians with the west coast of Africa had for its principal objects the

procuring of ivory, of elephant, lion, leopard, and deer-skins, and probably of gold. Scylax relates that there was an established trade in his day (about B.C. 350) between Phoenicia and an island which he calls Cerne, probably Arguin, off the West African coast. "The merchants," he says, "who are Phoenicians, when they have arrived at Cerne, anchor their vessels there, and after having pitched their tents upon the shore, proceed to unload their cargo, and to convey it in smaller boats to the mainland. The dealers with whom they trade are Ethiopians; and these dealers sell to the Phoenicians skins of deer, lions, panthers, and domestic animals--elephants' skins also, and their teeth. The Ethiopians wear embroidered garments, and use ivory cups as drinking vessels; their women adorn themselves with ivory bracelets; and their horses also are adorned with ivory. The Phoenicians convey to them ointment, elaborate vessels from Egypt, castrated swine(?), and Attic pottery and cups. These last they commonly purchase [in Athens] at the Feast of Cups. These Ethiopians are eaters of flesh and drinkers of milk; they make also much wine from the vine; and the Phoenicians, too, supply some wine to them. They have a considerable city, to which the Phoenicians sail up." The river on which the city stood was probably the Senegal.

It will be observed that Scylax says nothing in this passage of any traffic for gold. We can scarcely suppose, however, that the Phoenicians, if they penetrated so far south as this, could remain ignorant of the fact that West Africa was a gold-producing country, much less that, being aware of the fact, they would fail to utilise it. Probably they were the first to establish that "dumb commerce" which was afterwards carried on with so much advantage to themselves by the Carthaginians, and whereof Herodotus gives so graphic an account. "There is a country," he says, "in Libya, and a nation, beyond the Pillars of Hercules, which the Carthaginians are wont to visit, where they no sooner arrive than forthwith they unlade their wares, and having disposed them after an orderly fashion along the beach, there leave them, and returning aboard their ships, raise a great smoke. The natives, when they see the sample, come down to the shore, and laying out to view so much gold as they think the wares are worth, withdraw to a distance. The Carthaginians upon this come ashore again and look. If they think the gold to be enough, they take it and go their way; but if it does not seem to them sufficient, they go aboard ship once more, and wait patiently. Then the others approach and add to their gold, till the Carthaginians are satisfied. Neither party deals unfairly by the other: for they themselves never touch the gold till it comes up to the worth of their goods, nor do the natives ever carry off the goods until the gold has been taken away."

The nature of the Phoenician trade with the Canaries, or Fortunate Islands, is not stated by any ancient author, and can only be conjectured. It would scarcely have been worth the Phoenicians' while to convey timber to Syria from such a distance, or we might imagine the virgin forests of the islands attracting them. The large breed of dogs from which the Canaries derived their later name may perhaps have constituted an article of export even in Phoenician times, as we know they did later, when we hear of their being conveyed to King Juba; but there is an entire lack of evidence on the subject. Perhaps the Phoenicians frequented the islands less for the sake of commerce than for that of watering and refitting the ships engaged in the African trade, since the natives were less formidable than those who inhabited the mainland.

There was one further direction in which the Phoenicians pushed their maritime trade, not perhaps continuously, but at intervals, when their political relations were such as to give them access to the sea which washed Asia on the south and on the southeast. The nearest points at which they could embark for the purpose of exploring or utilising the great

tract of ocean in this quarter were the inner recesses of the two deep gulfs known as the Persian and the Arabian. It has been thought by some that there were times in their history when the Phoenicians had the free use of both these gulfs, and could make the starting-point of their eastern explorations and trading voyages either a port on one of the two arms into which the Red Sea divides towards the north, or a harbour on the Persian Gulf near its north-western extremity. But the latter supposition rests upon grounds which are exceedingly unsafe and uncertain. That the Phoenicians migrated at some remote period from the shores of the Persian Gulf to the Mediterranean may be allowed to be highly probable; but that, after quitting their primitive abodes and moving off nearly a thousand miles to the westward, they still maintained a connection with their early settlements and made them centres for a trade with the Far East, is as improbable a hypothesis as any that has ever received the sanction of men of learning and repute. The Babylonians, through whose country the connection must have been kept up, were themselves traders, and would naturally keep the Arabian and Indian traffic in their own hands; nor can we imagine them as brooking the establishment of a rival upon their shores. The Arabians were more friendly; but they, too, would have disliked to share their carrying trade with a foreign nation. And the evidence entirely fails to show that the Phoenicians, from the time of their removal to the Mediterranean, ever launched a vessel in the Persian Gulf, or had any connection with the nations inhabiting its shores, beyond that maintained by the caravans which trafficked by land between the Phoenician cities and the men of Dedan and Babylon.

It was otherwise with the more western gulf. There, certainly, from time to time, the Phoenicians launched their fleets, and carried on a commerce which was scarcely less lucrative because they had to allow the nations whose ports they used a participation in its profits. It is not impossible that, occasionally, the Egyptians allowed them to build ships in some one or more of their Red Sea ports, and to make such port or ports the head-quarters of a trade which may have proceeded beyond the Straits of Babelmandeb and possibly have reached Zanzibar and Ceylon. At any rate, we know that, in the time of Solomon, two harbours upon the Red Sea were open to them--viz. Eloth and Ezion-Geber--both places situated in the inner recess of the Elanitic Gulf, or Gulf of Akaba, the more eastern of the two arms into which the Red Sea divides. David's conquest of Edom had put these ports into the possession of the Israelites, and the friendship between Hiram and Solomon had given the Phoenicians free access to them. It was the ambition of Solomon to make the Israelites a nautical people, and to participate in the advantages which he perceived to have accrued to Phoenicia from her commercial enterprise. Besides sharing with the Phoenicians in the trade of the Mediterranean, he constructed with their help a fleet at Ezion-Geber upon the Red Sea, and the two allies conjointly made voyages to the region, or country, called Ophir, for the purpose of procuring precious stones, gold, and almug-wood. Ophir is, properly speaking, a portion of Arabia, and Arabia was famous for its production of gold, and also for its precious stones. Whether it likewise produced almug-trees is doubtful; and it is quite possible that the joint fleet went further than Ophir proper, and obtained the "almug-wood" from the east coast of Africa, or from India. The Somauli country might have been as easily reached as South-eastern Arabia, and if India is considerably more remote, yet there was nothing to prevent the Phoenicians from finding their way to it. We have, however, no direct evidence that their commerce in the Indian Ocean ever took them further than the Arabian coast, about E. Long. 55º.

10. Mining

The most precious and useful of the metals lie, in many places, so near the earth's surface that, in the earliest times, mining is unneeded and therefore unpractised. We are told that in Spain silver was first discovered in consequence of a great fire, which consumed all the forests wherewith the mountains were clothed, and lasted many days; at the end of which time the surface of the soil was found to be intersected by streams of silver from the melting of the superficial silver ore through the intense heat of the conflagration. The natives did not know what to do with the metal, so they bartered it away to the Phoenician traders, who already frequented their country, in return for some wares of very moderate value. Whether this tale be true or no, it is certain that even at the present day, in what are called "new countries," valuable metals often show themselves on the surface of the soil, either in the form of metalliferous earths, or of rocks which shine with spangles of a metallic character, or occasionally, though rarely, of actual masses of pure ore, sometimes encrusted with an oxide, sometimes bare, bright, and unmistakable. In modern times, whenever there is a rush into any gold region--whether California, or Australia, or South Africa--the early yield is from the surface. The first comers scratch the ground with a knife or with a pick-axe, and are rewarded by discovering "nuggets" of greater or less dimensions; the next flight of gold-finders search the beds of the streams; and it is not until the supply from these two sources begins to fail that mining, in the proper sense of the term, is attempted.

The earliest mining operations, whereof we have any record, are those conducted by the Egyptian kings of the fourth, fifth and twelfth dynasties, in the Sinaitic region. At two places in the mountains between Suez and Mount Sinai, now known as the Wady Magharah and Sarabit-el-Khadim, copper was extracted from the bosom of the earth by means of shafts laboriously excavated in the rocks, under the auspices of these early Pharaohs. Hence at the time of the Exodus the process of mining was familiar to the Hebrews, who could thus fully appreciate the promise, that they were about to be given "a good land"--"a land whose stones were iron, and out of whose hills they might _dig brass_." The Phoenicians, probably, derived their first knowledge of mining from their communications with the Egyptians, and no doubt first practised the art within the limits of their own territory--in Lebanon, Casius, and Bargylus. The mineral stores of these regions were, however, but scanty, and included none of the more important metals, excepting iron. The Phoenicians were thus very early in their history driven afield for the supply of their needs, and among the principal causes of their first voyages of discovery must be placed the desire of finding and occupying regions which contained the metallic treasures wherein their own proper country was deficient.

It is probable that they first commenced mining operations on a large scale in Cyprus. Here, according to Pliny, copper was first discovered; and though this may be a fable, yet here certainly it was found in great abundance at a very early time, and was worked to such an extent, that the Greeks knew copper, as distinct from bronze, by no other name than that of {khalkos Kuprios}, whence the Roman _AEs Cyprium_, and our own name for the metal. The principal mines were in the southern mountain range, near Tamasus, but there were others also at Amathus, Soli, and Curium. Some of the old workings have been noticed by modern travellers, particularly near Soli and Tamasus, but they have neither been described anciently nor examined scientifically in modern times. The ore from which the metal was extracted is called _chalcitis_ by Pliny, and may have been the "chalcocite" of our present metallurgical science, which is a sulphide containing very nearly eighty per cent. of copper. The brief account which

Strabo gives of the mines of Tamasus shows that the ore was smelted in furnaces which were heated by wood fires. We gather also from Strabo that Tamasus had silver mines.

That the Phoenicians conducted mining operations in Thasos we know from Herodotus, and from other writers of repute we learn that they extended these operations to the mainland opposite. Herodotus had himself visited Thasos, and tells us that the mines were on the eastern coast of the island, between two places which he calls respectively AEnyra and Coenyra. The metal sought was gold, and in their quest of it the Phoenicians had, he says, turned an entire mountain topsy-turvy. Here again no modern researches seem to have been made, and nothing more is known than that at present the natives obtain no gold from their soil, do not seek for it, and are even ignorant that their island was ever a gold-producing region. The case is almost the same on the opposite coast, where in ancient times very rich mines both of gold and silver abounded, which the Phoenicians are said to have worked, but where at the present day mining enterprise is almost at a standstill, and only a very small quantity of silver is produced.

Sardinia can scarcely have been occupied by the Phoenicians for anything but its metals. The southern and south-western parts of the island, where they made their settlements, were rich in copper and lead; and the position of the cities seems to indicate the intention to appropriate these metals. In the vicinity of the lead mines are enormous heaps of scoriae, mounting up apparently to a very remote era. The scoriae are not so numerous in the vicinity of the copper mines, but "pigs" of copper have been found in the island, unlike any of the Roman period, which are perhaps Phoenician, and furnish specimens of the castings into which the metal was run, after it had been fused and to some extent refined. The weight of the pigs is from twenty-eight to thirty-seven kilogrammes. Pigs of lead have also been found, but they are less frequent.

But all the other mining operations of the Phoenicians were insignificant compared with those of which the theatre was Spain. Spain was the Peru of the ancient world, and surpassed its modern rival, in that it produced not only gold and silver, but also copper, iron, tin, and lead. Of these metals gold was the least abundant. It was found, however, as gold dust in the bed of the Tagus; and there were mines of it in Gallicia, in the Asturias, and elsewhere. There was always some silver mixed with it, but in one of the Gallician mines the proportion was less than three per cent. Elsewhere the proportion reached to ten or even twelve and a half per cent.; and, as there was no known mode of clearing the gold from it, the produce of the Gallician mine was in high esteem and greatly preferred to that of any other. Silver was yielded in very large quantities. "Spain," says Diodorus Siculus, "has the best and most plentiful silver from mines of all the world." "The Spanish silver," says Pliny, "is the best." When the Phoenicians first visited Spain, they found the metal held in no esteem at all by the natives. It was the common material of the cheapest drinking vessels, and was readily parted with for almost anything that the merchants chose to offer. Much of it was superficial, but the veins were found to run to a great depth; and the discovery of one vein was a sure index of the near vicinity of more. The out-put of the Spanish silver mines during the Phoenician, Carthaginian, and Roman periods was enormous, and cannot be calculated; nor has the supply even yet failed altogether. The iron and copper of Spain are also said to have been exceedingly abundant in ancient times, though, owing to the inferior value of the metals, and to their wider distribution, but little is recorded with regard to them. Its tin and lead, on the other hand, as being metals found in comparatively few localities, receive not infrequent mention. The Spanish tin, according to Posidonius, did not crop out upon the surface, but had to be

obtained by mining. It was produced in some considerable quantity in the country of the Artabri, to the north of Lusitania, as well as in Lusitania itself, and in Gallicia; but was found chiefly in small particles intermixed with a dark sandy earth. Lead was yielded in greater abundance; it was found in Cantabria, in Baetica, and many other places. Much of it was mixed with silver, and was obtained in the course of the operations by means of which silver was smelted and refined. The mixed metal was called _galena_. Lead, however, was also found, either absolutely pure, or so nearly so that the alloy was inappreciable, and was exported in large quantities, both by the Phoenicians and the Carthaginians, and also by the Romans. It was believed that the metal had a power of growth and reproduction, so that if a mine was deserted for a while and then re-opened, it was sure to be found more productive than it was previously. The fact seems to be simply that the supply is inexhaustible, since even now Spain furnishes more than half the lead that is consumed by the rest of Europe. Besides the ordinary metals, Spain was capable of yielding an abundance of quicksilver; but this metal seems not to have attracted the attention of the Phoenicians, who had no use for it.

The methods employed by the Phoenicians to obtain the metals which they coveted were not, on the whole, unlike those which continue in use at the present day. Where surface gold was brought down by the streams, the ground in their vicinity, and such portions of their beds as could be laid bare, were searched by the spade; any earth or sand that was seen to be auriferous was carefully dug out and washed, till the earthy particles were cleared away, and only the gold remained. Where the metal lay deeper, perpendicular shafts were sunk into the ground to a greater or less depth--sometimes, if we may believe Diodorus, to the depth of half a mile or more; from these shafts horizontal adits were carried out at various levels, and from the adits there branched lateral galleries, sometimes at right angles, sometimes obliquely, which pursued either a straight or a tortuous course. The veins of metal were perseveringly followed up, and where faults occurred in them, filled with trap, or other hard rock, the obstacle was either tunnelled through or its flank turned, and the vein still pursued on the other side. As the danger of a fall of material from the roofs of the adits and galleries was well understood, it was customary to support them by means of wooden posts, or, where the material was sufficiently firm, to arch them. Still, from time to time, falls would occur, with great injury and loss of life to the miners. Nor was there much less danger where a mountain was quarried for the sake of its metallic treasures. Here, too, galleries were driven into the mountain-side, and portions of it so loosened that after a time they detached themselves and fell with a loud crash into a mass of _debris_. It sometimes happened that, as the workings proceeded, subterranean springs were tapped, which threatened to flood the mine, and put an end to its further utilisation. In such cases, wherever it was possible, tunnels were constructed, and the water drained off to a lower level. In the deeper mines this, of course, could not be done, and such workings had to be abandoned, until the invention of the Archimedes' screw (ab. B.C. 220-190), when the water was pumped up to the surface, and so got rid of. But before this date Phoenicia had ceased to exist as an independent country, and the mines that had once been hers were either no longer worked, or had passed into the hands of the Romans or the Carthaginians.

When the various ores were obtained, they were first of all crushed, then pounded to a paste; after which, by frequent washings, the non-metallic elements were to a large extent eliminated, and the metallic ones alone left. These, being collected, were placed in crucibles of white clay, which were then submitted to the action of a furnace heated to the melting point. This point could only be

reached by the use of the bellows. When it was reached, the impurities which floated on the top of the molten metal were skimmed off, or the metal itself allowed, by the turning of a cock, to flow from an upper crucible into a lower one. For greater purity the melting and skimming process was sometimes repeated; and, in the case of gold, the skimmings were themselves broken up, pounded, and again submitted to the melting pot. The use of quicksilver, however, being unknown, the gold was never wholly freed from the alloy of silver always found in it, nor was the silver ever wholly freed from an alloy of lead.

The Romans and Carthaginians worked their mines almost wholly by slave labour; and very painful pictures are drawn of the sufferings undergone by the unhappy victims of a barbarous and wasteful system. The gangs of slaves, we are told, remained in the mines night and day, never seeing the sun, but living and dying in the murky and foetid atmosphere of the deep excavations. It can scarcely be hoped that the Phoenicians were wiser or more merciful. They had a large command of slave labour, and would naturally employ it where the work to be done was exceptionally hard and disagreeable. Moreover, the Carthaginians, their colonists, are likely to have kept up the system, whatever it was, which they found established on succeeding to the inheritance of the Phoenician mines, and the fact that they worked them by means of slaves makes it more than probable that the Phoenicians had done so before them.

When the metals were regarded as sufficiently cleansed from impurities, they were run into moulds, which took the form of bars, pigs, or ingots. Pigs of copper and lead have, as already observed, been found in Sardinia which may well belong to Phoenician times. There is also in the museum of Truro a pig of tin, which, as it differs from those made by the Romans, Normans, and later workers, has been supposed to be Phoenician. Ingots of gold and silver have not at present been found on Phoenician localities; but the Persian practice, witnessed to by Herodotus, was probably adopted from the subject nation, which confessedly surpassed all the others in the useful arts, in commerce, and in practical sagacity.

11. Religion

There can be no doubt that the Phoenicians were a people in whose minds religion and religious ideas occupied a very prominent place. Religiousness has been said to be one of the leading characteristics of the Semitic race; and it is certainly remarkable that with that race originated the three principal religions, two of which are the only progressive religions, of the modern world. Judaism, Christianity, and Mohammedanism all arose in Western Asia within a restricted area, and from nations whose Semitic origin is unmistakable. The subject of ethnic affinities and differences, of the transmission of qualities and characteristics, is exceedingly obscure; but, if the theory of heredity be allowed any weight at all, there should be no difficulty in accepting the view that particular races of mankind have special leanings and aptitudes.

Still, the religiousness of the Phoenicians does not rest on any _a priori_ arguments, or considerations of what is likely to have been. Here was a nation among whom, in every city, the temple was the centre of attraction, and where the piety of the citizens adorned every temple with abundant and costly offerings. The monarchs who were at the head of the various states showed the greatest zeal in continually maintaining the honour of the gods, repaired and beautified the sacred buildings, and occasionally added to their kingly dignity the highly esteemed office of High Priest. The coinage of the country bore religious emblems, and proclaimed the fact that the cities regarded themselves as under the protection of this or that deity. Both the kings and their subjects bore commonly religious names--names which designated

them as the worshippers or placed them under the tutelage of some god or goddess. Abd-alonim, Abdastartus, Abd-osiris, Abdemon (which is properly Abd-Esmun), Abdi-milkut, were names of the former kind, Abi-baal (= "Baal is my father"), Itho-bal (= "with him is Baal"), Baleazar or Baal-azur (= "Baal protects"), names of the latter. The Phoenician ships carried images of the gods in the place of figure-heads. Wherever the Phoenicians went, they bore with them their religion and their worship; in each colony they planted a temple or temples, and everywhere throughout their wide dominion the same gods were worshipped with the same rites and with the same observances.

In considering the nature of the Phoenician religion, we must distinguish between its different stages. There is sufficient reason to believe that originally, either when they first occupied their settlements upon the Mediterranean or before they moved from their primitive seats upon the shores of the Persian Gulf, the Phoenicians were Monotheists. We must not look for information on this subject to the pretentious work which Philo of Byblus, in the first or second century of our era, put forth with respect to the "Origines" of his countrymen, and attributed to Sanchoniatho; we must rather look to the evidence of language and fact, records which may indeed be misread, but which cannot well be forged or falsified. These will show us that in the earliest times the religious sentiment of the Phoenicians acknowledged only a single deity--a single mighty power, which was supreme over the whole universe. The names by which they designated him were El, "great;" Ram or Rimmon, "high;" Baal, "Lord;" Melek or Molech, "King;" Eliun, "Supreme;" Adonai, "My Lord;" Bel-samin, "Lord of Heaven," and the like. Distinct deities could no more be intended by such names as these than by those under which God is spoken of in the Hebrew Scriptures, several of them identical with the Phoenician names--El or Elohim, "great;" Jehovah, "existing;" Adonai, "my Lord;" Shaddai, "strong;" El Eliun, "the supreme Great One." How far the Phoenicians actually realised all that their names properly imply, whether they went so far as to divest God wholly of a material nature, whether they viewed Him as the Creator, as well as the Lord, of the world, are problems which it is impossible, with the means at present at our disposal, to solve. But they certainly viewed Him as "the Lord of Heaven," and, if so, no doubt also as the Lord of earth; they believed Him to be "supreme" or "the Most High;" and they realised his personal relation to each one of his worshippers, who were privileged severally to address Him as Adonai--"_my_ Lord." It may be presumed that at this early stage of the religion there was no idolatry; when One God alone is acknowledged and recognised, the feeling is naturally that expressed in the Egyptian hymn of praise--"He is not graven in marble; He is not beheld; His abode is unknown; there is no building that can contain Him; unknown is his name in heaven; He doth not manifest his forms; vain are all representations."

But this happy state of things did not--perhaps we may say, could not--in the early condition of the human intelligence, last long. Fallen man, left to himself, very soon corrupts his way upon the earth; his hands deal with wickedness; and, in a little while, "every imagination of the thoughts of his heart is only evil continually." When he becomes conscious to himself of sin, he ceases to be able to endure the thought of One Perfect Infinite Being, omnipotent, ever-present, who reads his heart, who is "about his path, and about his bed, and spies out all his ways." He instinctively catches at anything whereby he may be relieved from the intolerable burden of such a thought; and here the imperfection of language comes to his aid. As he has found it impossible to express in any one word all that is contained in his idea of the Divine Being, he has been forced to give Him many names, each of them originally expressive of some one of that Being's attributes. But in course of time these words have lost their

force--their meaning has been forgotten--and they have come to be mere proper names, designative but not significative. Here is material for the perverted imagination to work upon. A separate being is imagined answering to each of the names; and so the _nomina_ become _numina_. Many gods are substituted for one; and the idea of God is instantly lowered. The gods have different spheres. No god is infinite; none is omnipotent, none omnipresent; therefore none omniscient. The aweful, terrible nature of God is got rid of, and a company of angelic beings takes its place, none of them very alarming to the conscience.

In its second stage the religion of Phoenicia was a polytheism, less multitudinous than most others, and one in which the several divinities were not distinguished from one another by very marked or striking features. At the head of the Pantheon stood a god and a goddess--Baal and Ashtoreth. Baal, "the Lord," or Baal-samin, "the Lord of Heaven," was compared by the Greeks to their Zeus, and by the Romans to their Jupiter. Mythologically, he was only one among many gods, but practically he stood alone; he was the chief of the gods, the main object of worship, and the great ruler and protector of the Phoenician people. Sometimes, but not always, he had a solar character, and was represented with his head encircled by rays. Baalbek, which was dedicated to him, was properly "the city of the Sun," and was called by the Greeks Heliopolis. The solar character of Baal is, however, far from predominant, and as early as the time of Josiah we find the Sun worshipped separately from him, no doubt under a different name. Baal is, to a considerable extent, a city god. Tyre especially was dedicated to him; and we hear of the "Baal of Tyre" and again of the "Baal of Tarsus." Essentially, he was the embodiment of the generative principle in nature--"the god of the creative power, bringing all things to life everywhere." Hence, "his statue rode upon bulls, for the bull was the symbol of generative power; and he was also represented with bunches of grapes and pomegranates in his hand," emblems of productivity. The sacred conical stones and pillars dedicated in his temples may have had their origin in a similar symbolism. As polytheistic systems had always a tendency to enlarge themselves, Baal had no sooner become a separate god, distinct from El, and Rimmon, and Molech, and Adonai, than he proceeded to multiply himself, and from Baal became Baalim, either because the local Baals--Baal-Tzur, Baal-Sidon, Baal-Tars, Baal-Libnan, Baal-Hermon--were conceived of as separate deities, or because the aspects of Baal--Baal as Sun-God, Baal as Lord of Heaven, Baal as lord of flies,, &c.--were so viewed, and grew to be distinct objects of worship. In later times he was identified with the Egyptian Ammon, and worshipped as Baal-Hammon.

Baal is known to have had temples at Baalbek, at Tyre, at Tarsus, at Agadir (Gades), in Sardinia, at Carthage, and at Ekron. Though not at first worshipped under a visible form, he came to have statues dedicated to him, which received the usual honours. Sometimes, as already observed, his head was encircled with a representation of the solar rays; sometimes his form was assimilated to that under which the Egyptians of later times worshipped their Ammon. Seated upon a throne and wrapped in a long robe, he presented the appearance of a man in the flower of his age, bearded, and of solemn aspect, with the carved horn of a ram on either side of his forehead. Figures of rams also supported the arms of his throne on either side, and on the heads of these two supports his hands rested.

The female deity whose place corresponded to that of Baal in the Phoenician Pantheon, and who was in a certain sense his companion and counterpart, was Ashtoreth or Astarte. As Baal was the embodiment of the generative principle in nature, so was Ashtoreth of the receptive and productive principle. She was the great nature-goddess,

the Magna Mater, regent of the stars, queen of heaven, giver of life, and source of woman's fecundity. Just as Baal had a solar, so she had a lunar aspect, being pictured with horns upon her head representative of the lunar crescent. Hence, as early as the time of Moses, there was a city on the eastern side of Jordan, named after her, Ashtoreth-Karnaim, or "Astarte of the two horns." Her images are of many forms. Most commonly she appears as a naked female, with long hair, sometimes gathered into tresses, and with her two hands supporting her two breasts. Occasionally she is a mother, seated in a comfortable chair, and nursing her babe. Now and then she is draped, and holds a dove to her breast, or else she takes an attitude of command, with the right hand raised, as if to bespeak attention. Sometimes, on the contrary, her figure has that modest and retiring attitude which has caused it to be described by a distinguished archaeologist as "the Phoenician prototype of the Venus de Medici." The Greeks and Romans, who identified Baal determinately with their Zeus or Jupiter, found it very much more difficult to fix on any single goddess in their Pantheon as the correspondent of Astarte. Now they made her Hera or Juno, now Aphrodite or Venus, now Athene, now Artemis, now Selene, now Rhea or Cybele. But her aphrodisiac character was certainly the one in which she most frequently appeared. She was the goddess of the sexual passion, rarely, however, represented with the chaste and modest attributes of the Grecian Aphrodite-Urania, far more commonly with those coarser and more repulsive ones which characterise Aphrodite Pandemos. Her temples were numerous, though perhaps not quite so numerous as those of Baal. The most famous were those at Sidon, Aphaca, Ashtoreth-Karnaim, Paphos, Pessinus, and Carthage. At Sidon the kings were sometimes her high-priests; and her name is found as a frequent element in Phoenician personal names, royal and other: e.g.--Astartus, Abdastartus, Delaeastartus, Am-ashtoreth, Bodoster, Bostor, &c.

The other principal Phoenician deities were El, Melkarth, Dagon, Hadad, Adonis, Sydyk, Eshmun, the Cabeiri, Onca, Tanith, Tanata, or Anaitis, and Baalith, Baaltis, or Beltis. El, or Il, originally a name of the Supreme God, became in the later Phoenician mythology a separate and subordinate divinity, whom the Greeks compared to their Kronos and the Romans to their Saturn. El was the special god of Gebal or Byblus, and was worshipped also with peculiar rites at Carthage. He was reckoned the son of Uranus and the father of Beltis, to whom he delivered over as her especial charge the city of Byblus. Numerous tales were told of him. While reigning on earth as king of Byblus, or king of Phoenicia, he had fallen in love with a nymph of the country, called Anobret, by whom he had a son named Ieoud. This son, much as he loved him, when great dangers from war threatened the land, he first invested with the emblems of royalty, and then sacrificed. Uranus (Heaven) married his sister Ge (Earth), and Il or Kronos was the issue of this marriage, as also were Dagon, Baetylus, and Atlas. Ge, being dissatisfied with the conduct of her husband, induced her son Kronos to make war upon him, and Kronos, with the assistance of Hermes, overcame Uranus, and having driven him from his kingdom succeeded to the imperial power. Besides sacrificing Ieoud, Kronos murdered another of his sons called Sadid, and also a daughter whose name is not given. Among his wives were Astarte, Rhea, Dione, Eimarmene, and Hora, of whom the first three were his sisters. There is no need to pursue this mythological tangle. If it meant anything to the initiated, the meaning is wholly lost; and the stories, gravely as they are related by the ancient historian, to the modern, who has no key to them, are almost wholly valueless.

Originally, Melkarth would seem to have been a mere epithet, representing one aspect of Baal. The word is formed from the two roots _melek_ and _kartha_ (= Heb. _kiriath_, "city"), and means "King of the City," or "City King," which Baal was considered to be. But the two

names in course of time drifted apart, and Melicertes, in Philo Byblius, has no connection at all with Baal-samin. The Greeks, who identified Baal with their Zeus, viewed Melkarth as corresponding to their Heracles, or Hercules; and the later Phoenicians, catching at this identification, represented Melkarth under the form of a huge muscular man, with a lion's skin and sometimes with a club. Melkarth was especially worshipped at Tyre, of which city he was the tutelary deity, at Thasos, and at Gades. Herodotus describes the temple of Hercules at Tyre, and attributes to it an antiquity of 2,300 years before his own time. He also visited a temple dedicated to the same god at Thasos. With Gades were connected the myths of Hercules' expedition to the west, of his erection of the pillars, his defeat of Chrysaor of the golden sword, and his successful foray upon the flocks and herds of the triple Geryon. Whether these legends were Greek or Phoenician in origin is uncertain; but the Phoenicians, at any rate, adopted them, and here have been lately found on Phoenician sites representations both of Geryon himself, and the carrying off by Hercules of his cattle. The temple of Heracles at Gades is mentioned by Strabo and others. It was on the eastern side of the island, where the strait between the island and the continent was narrowest. Founded about B.C. 1100, it continued to stand to the time of Silius Italicus, and, according to the tradition, had never needed repair. An unextinguished fire had burnt upon its altar for thirteen hundred years; and the worship had remained unchanged--no image profaned the Holy of Holies, where the god dwelt, waited on by bare-footed priests with heads shaved, clothed in white linen robes, and vowed to celibacy. The name of the god occurs as an element in a certain small number of Phoenician names of men--e.g. Bomilcar, Himilcar, Abd-Melkarth, and the like.

Dagon appears in scripture only as a Philistine god, which would not prove him to have been acknowledged by the Phoenicians; but as Philo of Byblus admits him among the primary Phoenician deities, making him a son of Uranus, and a brother of Il or Kronis, it is perhaps right that he should be allowed a place in the Phoenician list. According to Philo, he was the god of agriculture, the discoverer of wheat, and the inventor of the plough. Whether he was really represented, as is commonly supposed, in the form of a fish, or as half man and half fish, is extremely doubtful. In the Hebrew account of the fall of Dagon's image before the Ark of the Covenant at Ashdod there is no mention made of any "fishy part;" nor is there anything in the Assyrian remains to connect the name Dagon, which occurs in them, with the remarkable figure of a fish-god so frequent in the bas-reliefs. That figure would seem rather to represent, or symbolise, either Hea or Nin. The notion of Dagon's fishy form seems to rest entirely on an etymological basis--on the fact, i.e. that _dag_ means "fish," in Hebrew. In Assyrian, however, _kha_ is "fish," and not _dag_; while in Hebrew, though _dag_ is "fish," _dagan_ is "corn." It may be noted also that the Phoenician remains contain no representation of a fish deity. On the whole, it is perhaps best to be content with the account of Philo, and to regard the Phoenician Dagon as a "Zeus Arotrios"--a god presiding over agriculture and especially worshipped by husbandmen. The name, however, does not occur in the Phoenician remains which have come down to us.

Hadad, like Dagon, obtains his right to be included in the list of Phoenician deities solely from the place assigned to him by Philo. Otherwise he would naturally be viewed as an Aramean god, worshipped especially in Aram-Zobah, and in Syria of Damascus. In Syria, he was identified with the sun; and it is possible that in the Phoenician religion he was the Sun-God, worshipped (as we have seen) sometimes independently of Baal. His image was represented with the solar rays streaming down from it towards the earth, so as to indicate that the earth received from him all that made it fruitful and

abundant. Macrobius connects his name with the Hebrew _chad_, "one;" but this derivation is improbable. Philo gives him the title of "King of Gods," and says that he reigned conjointly with Astarte and Demaroues, but this does not throw much light on the real Phoenician conception of him. The local name, Hadad-rimmon, may seem to connect him with the god Rimmon, likewise a Syrian deity, and it is quite conceivable that the two words may have been alternative names of the same god, just as Phoebus and Apollo were with the Greeks. We may conjecture that the Sun was worshipped under both names in Syria, while in Phoenicia Hadad was alone made use of. The worship of Baal as the Sun, which tended to prevail ever more and more, ousted Hadad from his place, and caused him to pass into oblivion.

Adonis was probably, like Hadad, originally a sun-god; but the myths connected with him gave him, at any rate in the late Phoenician times, a very distinct and definite personality. He was made the son of Cinryas, a mythic king of Byblus, and the husband of Astarte or Ashtoreth. One day, as he chased the wild boar in Lebanon, near the sources of the river of Byblus, the animal which he was hunting turned upon him, and so gored his thigh that he died of the wound. Henceforth he was mourned annually. At the turn of the summer solstice, the anniversary of his death, all the women of Byblus went in a wild procession to Aphaca, in the Lebanon, where his temple stood, and wept and wailed on account of his death. The river, which his blood had once actually stained, turned red to show its sympathy with the mourners, and was thought to flow with his blood afresh. After the "weeping for Tammuz" had continued for a definite time, the mourning terminated with the burial of an image of the god in the sacred precinct. Next day Adonis was supposed to return to life; his image was disinterred and carried back to the temple with music and dances, and every circumstance of rejoicing. Wild orgies followed, and Aphaca became notorious for scenes to which it will be necessary to recur hereafter. The Adonis myth is generally explained as representing either the perpetually recurrent decay and recovery of nature, or the declension of the Sun as he moves from the summer to the winter constellations, and his subsequent return and reappearance in all his strength. But myths obtained a powerful hold on ancient imaginations, and the worshippers of Adonis probably in most cases forgot the symbolical character of his cult, and looked on him as a divine or heroic personage, who had actually gone through all the adventures ascribed to him in the legend. Hence the peculiarly local character of his worship, of which we find traces only at Byblus and at Jerusalem.

Sydyk, "Justice," or, the "Just One," whose name corresponds to the Hebrew Zadok or Zedek, appears in the Phoenician mythology especially as the father of Esmun and the Cabeiri. Otherwise he is only known as the son of Magus (!) and the discoverer of salt. It is perhaps his name which forms the final element in Melchizedek, Adoni-zedek, and the like. We have no evidence that he was really worshipped by the Phoenicians.

Esmun, on the other hand, the son of Sydyk, would seem to have been an object of worship almost as much as any other deity. He was the special god of Berytus, but was honoured also in Cyprus, at Sidon, at Carthage, in Sardinia, and elsewhere. His name forms a frequent element in Phoenician names, royal and other:--e.g. Esmun-azar, Esmun-nathan, Han-Esmun, Netsib-Esmun, Abd-Esmun, &c. According to Damascius, he was the eighth son of Sydyk, whence his name, and the chief of the Cabeiri. Whereas they were dwarfish and misshapen, he was a youth of most beautiful appearance, truly worthy of admiration. Like Adonis, he was fond of hunting in the woods that clothe the flanks of Lebanon, and there he was seen by Astronoe, the Phoenician goddess, the mother of the gods (in whom we cannot fail to recognise Astarte), who persecuted him with

her attentions to such an extent that to escape her he was driven to the desperate resource of self-emasculation. Upon this the goddess, greatly grieved, called him Paean, and by means of quickening warmth brought him back to life, and changed him from a man into a god, which he thenceforth remained. The Phoenicians called him Esmun, "the eighth," but the Greeks worshipped him as Asclepius, the god of healing, who gave life and health to mankind. Some of the later Phoenicians regarded him as identical with the atmosphere, which, they said, was the chief source of health to man. But it is not altogether clear that the earlier Phoenicians attached to him any healing character.

The seven other Cabeiri, or "Great Ones," equally with Esmun the sons of Sydyk, were dwarfish gods who presided over navigation, and were the patrons of sailors and ships. The special seat of their worship in Phoenicia Proper was Berytus, but they were recognised also in several of the Phoenician settlements, as especially in Lemnos, Imbrus, and Samothrace. Ships were regarded as their invention, and a sculptured image of some one or other of them was always placed on every Phoenician war-galley, either at the stern or stem of the vessel. They were also viewed as presiding over metals and metallurgy, having thus some points of resemblance to the Greek Hephaestus and the Latin Vulcan. Pigmy and misshapen gods belong to that fetishism which has always had charms for the Hamitic nations; and it may be suspected that the Phoenicians adopted the Cabeiri from their Canaanite predecessors, who were of the race of Ham. The connection between these pigmy deities and the Egyptian Phthah, or rather Phthah-Sokari, is unmistakable, and was perceived by Herodotus. Clay pigmy figurines found on Phoenician sites very closely resemble the Egyptian images of that god; and the coins attributed to Cossura exhibit a similar dwarfish form, generally carrying a hammer in the right hand. An astral character has been attached by some writers to the Cabeiri, but chiefly on account of their number, which is scarcely a sufficient proof.

Several Greek writers speak of a Phoenician goddess corresponding to the Grecian Athene, and some of them say that she was named Onga or Onca. The Phoenician remains give us no such name; but as Philo Byblius has an "Athene" among his Phoenician deities, whom he makes the daughter of Il, or Kronos, and the queen of Attica, it is perhaps best to allow Onca to retain her place in the Phoenician Pantheon. Philo says that Kronos _by her advice_ shaped for himself out of iron a sword and a spear; we may therefore presume that she was a war-goddess (as was Pallas-Athene among the Greeks), whence she naturally presided over the gates of towns, which were built and fortified for warlike purposes.

The worship of a goddess, called Tanath or Tanith, by the later Phoenicians, is certain, since, besides the evidence furnished by the name Abd-Tanith, i.e. "Servant of Tanith," the name Tanith itself is distinctly read on a number of votive tablets brought from Carthage, in a connection which clearly implies her recognition, not only as a goddess, but as a great goddess, the principal object of Carthaginian worship. The form of inscription on the tablets is, ordinarily, as follows:--

"To the great [goddess], Tanith, and To our lord and master Baal-Hammon. The offerer is ...., Son of ...., son of ...."

Tanith is invariable placed before Baal, as though superior to him, and can be no other than the celestial goddess (Dea coelestis), whose temple in the Roman Carthage was so celebrated. The Greeks regarded her as equivalent to their Artemis; the Romans made her Diana, or Juno, or Venus. Practically she must at Carthage have taken the place of Ashtoreth. Apuleius describes her as having a lunar character, like Ashtoreth, and calls her "the parent of all things, the mistress of the elements, the initial offspring of the ages, the highest of the deities, the queen of the Manes, the first of the celestials, the single representative of all the gods and goddesses,

the one divinity whom all the world worships in many shapes, with varied rites, and under a multitude of names." He says that she was represented as riding upon a lion, and it is probably her form which appears upon some of the later coins of Carthage, as well as upon a certain number of gems. The origin of the name is uncertain. Gesenius would connect it at once with the Egyptian Neith (Nit), and with the Syrian Anaitis or Tanaitis; but the double identification is scarcely tenable, since Anaitis was, in Egypt, not Neith, but Anta. The subject is very obscure, and requires further investigation.

Baaltis, or Beltis, was, according to Philo Byblius, the daughter of Uranus and the sister of Asthoreth or Astarte. Il made her one of his many wives, and put the city of Byblus, which he had founded, under her special protection. It is doubtful, however, whether she was really viewed by the Phoenicians as a separate goddess, and not rather as Ashtoreth under another name. The word is the equivalent of {...}, "my lady," a very suitable title for the supreme goddess. Beltis, indeed, in Babylonia, was distinct from Ishtar; but this fact must not be regarded as any sufficient proof that the case was the same in Phoenicia. The Phoenician polytheism was decidedly more restricted than the Babylonian, and did not greatly affect the needless multiplication of divinities. Baaltis in Phoenicia may be the Beltis of Babylon imported at a comparatively late date into the country, but is more probably an alternative name, or rather, perhaps, a mere honorary title of Ashtoreth.

The chief characteristic of the third period of the Phoenician religion was the syncretistic tendency, whereby foreign gods were called in, and either identified with the old national divinities, or joined with them, and set by their side. Ammon, Osiris, Phthah, Pasht, and Athor, were introduced from Egypt, Tanith from either Egypt or Syria, Nergal from Assyria, Beltis (Baaltis) perhaps from Babylon. The worship of Osiris in the later times appears from such names as Abd-Osir, Osir-shamar, Melek-Osir, and the like, and is represented on coins with Phoenician legends, which are attributed either to Malta or Gaulos. Osiris was, it would seem, identified with Adonis, and was said to have been buried at Byblus; which was near the mouth of the Adonis river. His worship was not perhaps very widely spread; but there are traces of it at Byblus, in Cyprus, and in Malta. Ammon was identified with Baal in his solar character, and was generally worshipped in conjunction with Tanith, more especially at Carthage. He was represented with his head encircled by rays, and with a perfectly round face. His common title was "Lord" {...}, but in Numidia he was worshipped as "the Eternal King" {...}. As the giver of all good things, he held trees or fruits in his hands.

The Phoenicians worshipped their gods, like most other ancient nations, with prayer, with hymns of praise, with sacrifices, with processions, and with votive offerings. We do not know whether they had any regularly recurrent day, like the Jewish Sabbath, or Christian Sunday, on which worship took place in the temples generally; but at any rate each temple had its festival times, when multitudes flocked to it, and its gods were honoured with prolonged services and sacrifices on a larger scale than ordinary. Most festivals were annual, but some recurred at shorter intervals; and, besides the festivals, there was an every day cult, which was a duty incumbent upon the priests, but at which the private worshipper also might assist to offer prayer or sacrifice. The ordinary sacrificial animals were oxen, cows, goats, sheep, and lambs; swine were not offered, being regarded as unclean; but the stag was an acceptable victim, at any rate on certain occasions. At all functions the priests attended in large numbers, habited in white garments of linen or cotton, and wearing a stiff cap or mitre upon their heads: on one occasion of a sacrifice Lucian counted above three hundred engaged in the ceremony. It was the duty of some to slay the victims; of

others to pour libations; of a third class to bear about pans of coal on which incense could be offered; of a fourth to attend upon the altars. The priests of each temple had at their head a Chief or High Priest, who was robed in purple and wore a golden tiara. His office, however, continued only for a year, when another was chosen to succeed him.

Ordinarily, sacrifices were offered, in Phoenicia as elsewhere, singly, and upon altars; but sometimes it was customary to have a great holocaust. Large trees were dug up by the roots, and planted in the court of the temple; the victims, whether goats, or sheep, or cattle of any other kind, were suspended by ropes from the branches; birds were similarly attached, and garments, and vessels in gold and silver. Then the images of the gods belonging to the temple were brought out, and carried in a solemn procession round the trees; after which the trees were set on fire, and the whole was consumed in a mighty conflagration. The season for this great holocaust was the commencement of the spring-time, when the goodness of Heaven in once more causing life to spring up on every side seemed to require man's special acknowledgment.

Hymns of praise are spoken of especially in connection with this same Spring-Festival. Votive offerings were continually being offered in every temple by such as believed that they had received any benefit from any god, either in consequence of their vows, or prayers, or even by the god's spontaneous action. The sites of temples yield numerous traces of such offerings. Sometimes they are in the shape of stone _stelae_ or pillars, inscribed and more or less ornamented, sometimes of tablets placed within an ornamental border, and generally accompanied by some rude sculptures; more often of figures, either in bronze or clay, which are mostly of a somewhat rude character. M. Renan observes with respect to these figures, which are extremely numerous:--"Ought we to see in these images, as has been supposed, long series of portraits of priests and priestesses continued through several centuries? We do not think so. The person represented in these statues appears to us to be the author of a vow or of a sacrifice made to the divinity of the temple . . . Vows and sacrifices were very fleeting things; it might be feared that the divinity would soon forget them. An inscription was already recognised as a means of rendering the memory of a vow more lasting; but a statue was a momento still more--nay, much more efficacious. By having himself represented under the eyes of the divinity in the very act of accomplishing his vow, a man called to mind, as one may say, incessantly the offering which he had made to the god, and the homage which he had rendered him. An idea of this sort is altogether in conformity with the materialistic and self-interested character of the Phoenician worship, where the vow is a kind of business affair, a matter of debtor and creditor account, in which a man stipulates very clearly what he is to give, and holds firmly that he is to be paid in return . . . We have then, in these statues, representations of pious men, who came one after another to acquit themselves of their debt in the presence of the divinity; in order that the latter should not forget that the debt was discharged, they set up their images in front of the god. The image was larger or smaller, more or less carefully elaborated, in a more or less valuable material, according to the means of the individual who consecrated it."

Thus far there was no very remarkable difference between the Phoenician religious system and other ancient Oriental worships, which have a general family likeness, and differ chiefly in the names and number of the deities, the simplicity or complication of the rites, and the greater or less power and dignity attached to the priestly office. In these several respects the Phoenician religion seems to have leant towards the side of simplicity, the divinities recognised being, comparatively speaking, few, priestly influence not great, and the ceremonial not

very elaborate. But there were two respects in which the religion was, if not singular, at any rate markedly different from ordinary polytheisms, though less in the principles involved than in the extent to which they were carried out in practice. These were the prevalence of licentious orgies and of human sacrifice. The worship of Astarte was characterised by the one, the worship of Baal by the other. Phoenician mythology taught that the great god, Il or El, when reigning upon earth as king of Byblus, had, under circumstances of extreme danger to his native land, sacrificed his dearly loved son, Ieoud, as an expiatory offering. Divine sanction had thus been given to the horrid rite; and thenceforth, whenever in Phoenicia either public or private calamity threatened, it became customary that human victims should be selected, the nobler and more honourable the better, and that the wrath of the gods should be appeased by taking their lives. The mode of death was horrible. The sacrifices were to be consumed by fire; the life given by the Fire God he should also take back again by the flames which destroy being. The rabbis describe the image of Moloch as a human figure with a bull's head and outstretched arms; and the account which they give is confirmed by what Diodorus relates of the Carthaginian Kronos. His image, Diodorus says, was of metal, and was made hot by a fire kindled within it; the victims were placed in its arms and thence rolled into the fiery lap below. The most usual form of the rite was the sacrifice of their children--especially of their eldest sons--by parents. "This custom was grounded in part on the notion that children were the dearest possession of their parents, and, in part, that as pure and innocent beings they were the offerings of atonement most certain to pacify the anger of the deity; and further, that the god of whose essence the generative power of nature was had a just title of that which was begotten of man, and to the surrender of their children's lives . . . Voluntary offering on the part of the parents was essential to the success of the sacrifice; even the first-born, nay, the only child of the family, was given up. The parents stopped the cries of their children by fondling and kissing them, for the victim ought not to weep; and the sound of complaint was drowned in the din of flutes and kettledrums. Mothers, according to Plutarch, stood by without tears or sobs; if they wept or sobbed they lost the honour of the act, and their children were sacrificed notwithstanding. Such sacrifices took place either annually or on an appointed day, or before great enterprises, or on the occasion of public calamities, to appease the wrath of the god."

In the worship of Astarte the prostitution of women, and of effeminate men, played the same part that child murder did in the worship of Baal. "This practice," says Dr. Doellinger, "so widely spread in the world of old, the delusion that no service more acceptable could be rendered a deity than that of unchastity, was deeply rooted in the Asiatic mind. Where the deity was in idea sexual, or where two deities in chief, one a male and the other a female, stood in juxtaposition, there the sexual relation appeared as founded upon the essence of the deity itself, and the instinct and its satisfaction as that in men which most corresponded with the deity. Thus lust itself became a service of the gods; and, as the fundamental idea of sacrifice is that of the immediate or substitutive surrender of a man's self to the deity, so the woman could do the goddess no better service than by prostitution. Hence it was the custom [in some places] that a maiden before her marriage should prostitute herself once in the temple of the goddess; and this was regarded as the same in kind with the offering of the first-fruits of the field." Lucian, a heathen and an eye-witness, tells us--"I saw at Byblus the grand temple of the Byblian Venus, in which are accomplished the orgies relating to Adonis; and I learnt the nature of the orgies. For the Byblians say that the wounding of Adonis by the boar took place in their country; and, in memory of the accident, they

year by year beat their breasts, and utter lamentations, and go through the orgies, and hold a great mourning throughout the land. When the weeping is ended, first of all, they make to Adonis the offerings usually made to a corpse; after which, on the next day, they feign that he has come to life again, and hold a procession [of his image] in the open air. But previously they shave their heads, like the Egyptians when an Apis dies; and if any woman refuse to do so, she must sell her beauty during one day to all who like. Only strangers, however, are permitted to make the purchase, and the money paid is expended on a sacrifice which is offered to the goddess." "In this way," as Dr. Doellinger goes on to say, "they went so far at last as to contemplate the abominations of unnatural lust as a homage rendered to the deity, and to exalt it into a regular cultus. The worship of the goddess [Ashtoreth] at Aphaca in the Lebanon was specially notorious in this respect." Here, according to Eusebius, was, so late as the time of Constantine the Great, a temple in which the old Phoenician rites were still retained. "This," he says, "was a grove and a sacred enclosure, not situated, as most temples are, in the midst of a city, and of market-places, and of broad streets, but far away from either road or path, on the rocky slopes of Libanus. It was dedicated to a shameful goddess, the goddess Aphrodite. A school of wickedness was this place for all such profligate persons as had ruined their bodies by excessive luxury. The men there were soft and womanish--men no longer; the dignity of their sex they rejected; with impure lust they thought to honour the deity. Criminal intercourse with women, secret pollutions, disgraceful and nameless deeds, were practised in the temple, where there was no restraining law, and no guardian to preserve decency."

One fruit of this system was the extraordinary institution of the Galli. The Galli were men, who made themselves as much like women as they could, and offered themselves for purposes of unnatural lust to either sex. Their existence may be traced in Israel and Judah, as well as in Syria and Phoenicia. At great festivals, under the influence of a strong excitement, amid the din of flutes and drums and wild songs, a number of the male devotees would snatch up swords or knives, which lay ready for the purpose, throw off their garments, and coming forward with a loud shout, proceed to castrate themselves openly. They would then run through the streets of the city, with the mutilated parts in their hands, and throw them into the houses of the inhabitants, who were bound in such case to provide the thrower with all the apparel and other gear needful for a woman. This apparel they thenceforth wore, and were recognised as attached to the worship of Astarte, entitled to reside in her temples, and authorised to take part in her ceremonies. They joined with the priests and the sacred women at festival times in frenzied dances and other wild orgies, shouting, and cutting themselves on the arms, and submitting to be flogged one by another. At other seasons they "wandered from place to place, taking with them a veiled image or symbol of their goddess, and clad in women's apparel of many colours, and with their faces and eyes painted in female fashion, armed with swords and scourges, they threw themselves by a wild dance into bacchanalian ecstasy, in which their long hair was draggled through the mud. They bit their own arms, and then hacked themselves with their swords, or scourged themselves in penance for a sin supposed to have been committed against the goddess. In these scenes, got up to aid the collection of money, by long practice they contrived to cut themselves so adroitly as not to inflict on themselves any very serious wounds."

It is difficult to estimate the corrupting effect upon practice and morals of a religious system which embraced within it so many sensual and degrading elements. Where impurity is made an essential part of religion, there the very fountain of life is poisoned, and that which should have been "a savour of life

unto life"--a cleansing and regenerating influence--becomes "a savour of death unto death"--an influence leading on to the worst forms of moral degradation. Phoenician religion worked itself out, and showed its true character, in the first three centuries after our era, at Aphaca, at Hierapolis, and at Antioch, where, in the time of Julian, even a Libanius confessed that the great festival of the year consisted only in the perpetration of all that was impure and shameless, and the renunciation of every lingering spark of decency.

A vivid conception of another world, and of the reality of a life after death, especially if connected with a belief in future rewards and punishments, might have done much, or at any rate something, to counteract the effect upon morals and conduct of the degrading tenets and practices connected with the Astarte worship; but, so far as appears, the Phoenicians had a very faint and dim conception of the life to come, and neither hoped for happiness, nor feared misery in it. Their care for the preservation of their bodies after death, and the provision which in some cases they are seen to have made for them, imply a belief that death was not the end of everything, and a few vague expressions in inscriptions upon tombs point to a similar conviction; but the life of the other world seems to have been regarded as something imperfect and precarious--a sort of shadowy existence in a gloomy _Sheol_, where was neither pleasure nor pain, neither suffering nor enjoyment, but only quietness and rest. The thought of it did not occupy men's minds, or exercise any perceptible influence over their conduct. It was a last home, whereto all must go, acquiesced in, but neither hoped for nor dreaded. A Phoenician's feelings on the subject were probably very much those expressed by Job in his lament:--

"Why died I not from the womb? Why gave I not up the ghost at my birth? Why did the knees prevent me? or why the breasts that I should suck? For now should I have lain still and been quiet; I should have slept, and then should I have been at rest; I should have been with the kings and councillors of the earth, Who rebuilt for themselves the cities that were desolate. I should have been with the princes that had much gold, And that filled their houses with silver . . . There they that are wicked cease from troubling, There they that are weary sink to rest; There the prisoners are in quiet together, And hear no longer the voice of the oppressor: There are both the great and small, and the servant is freed from his master."

Still their religion, such as it was, had a great hold upon the Phoenicians. Parents gave to their children, almost always, religious names, recognising each son and daughter as a gift from heaven, or placing them under the special protection of the gods generally, or of some single divinity. It was piety, an earnest but mistaken piety, which so often caused the parent to sacrifice his child--the very apple of his eye and delight of his heart--that so he might make satisfaction for the sins which he felt in his inmost soul that he had committed. It was piety that filled the temples with such throngs, that brought for sacrifice so many victims, that made the worshipper in every difficulty put up a vow to heaven, and caused the payment of the vows in such extraordinary profusion. At Carthage alone there have been found many hundreds of stones, each one of which records the payment of a vow; while other sites have furnished hundreds or even thousands of _ex votos_--statues, busts, statuettes, figures of animals, cylinders, seals, rings, bracelets, anklets, ear-rings, necklaces, ornaments for the hair, vases, amphorae, oenochoae, paterae, jugs, cups, goblets, bowls, dishes, models of boats and chariots--indicative of an almost unexampled devotion. A single chamber in the treasury of Curium produced more than three hundred articles in silver and silver-gilt; the temple of Golgi yielded 228 votive statues; sites in Sardinia scarcely mentioned in antiquity have sufficed to fill

whole museums with statuettes, rings, and scarabs. If the Phoenicians did not give evidence of the depth of their religious feeling by erecting, like most nations, temples of vast size and magnificence, still they left in numerous places unmistakable proof of the reality of their devotion to the unseen powers by the multiplicity, and in many cases the splendour, of their votive offerings.