VARIOUS

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Содержание

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“PALE CONCLUDING WINTER.”

With howling fury Winter makes his bound
Upon us, freezing Nature at a look.
He dashes out the sweet and dreamy hues
Of Indian Summer, so that where the eye
The golden softness and the purple haze
Beheld at noon, at sunset sees the mist
Darken around the landscape, and the ear,
Nestling upon its pillow, hears the sleet
Ticking against the casement, whilst within
The silvery cracking of the kindling coal
Keeps merry chime. The morning rises up,
And lo! the dazzling picture! Every tree
Seems carved from steel, the silent hills are helm’d,
And the broad fields have breastplates. Over all
The sunshine flashes in a keen white blaze
Of splendor, searing eyesight. Go abroad!
The branches yield crisp cracklings, now and then
Sending a shower of rattling diamonds down
On the mailed earth, as freshens the light wind.
The hemlock is a stooping bower of ice,
And the oak seems as though a fairy’s wand
Had, the past night, transformed its skeleton frame
To a rich structure, trembling o’er with tints
Of rainbow beauty… A. B. Street.

A HISTORY OF THE ART OF WOOD-ENGRAVING

—

BY AN AMATEUR ARTIST

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With regard to the antiquity and origin of this most beautiful and most important of the early Christian arts – most important, because to it can be traced directly the invention of typography, as it now exists, bringing knowledge and truth within the reach of all who desire to attain them – there has been much difference and dispute among the literati. After the second restoration of letters – I mean after the dull and dreary interregnum between the era of the Stuarts and the Georgian era of literature, dating from the commencement of the present century – there seems to have arisen a strange habit of referring every thing, the origin of which was not distinctly known, to eras the most remote. Not to be able to say such a discovery was made by such a learned German or Venetian, by such a celebrated Gaul or Briton, in such a town, in such a year, of such a century, was sufficient cause for the drivelers of the time – the best scholars of whom knew, like Shakspeare, little Latin and less Greek, assuming, nevertheless, the possession of the deepest classic lore – to assert point-blank that it was made by such a wonderful Chinese philosopher during the reign of Wu-wang, emperor of China, or such a remarkable Egyptian sage, in the reign of Tathrak or Amenophis; or, that it was in common use in the days of Pericles, or perhaps even of the later Roman emperors.

The general knowledge of the classic languages was then so rare even among the authors of those days, that the *dictum* of any dunce who grossly misconstrued a Greek or Latin text, or of any rogue, who chose to forge one in support of his theory – in those days a matter of daily occurrence – was, so far from being questioned, detected, refuted, and exposed, as would now be the case, within a week of its publication, quoted and requoted by successive schools of dunces, until it was received as a truth, and sent down as a grave authority to future generations.

Though no author of this day, thanks to the number and acumen of the literary and critical journals – we do not mean newspapers, which promulgate, not correct falsehoods – could *originate* a blunder, much less a forgery, with a possibility of escaping detection; still, careless and hasty compilers following what they deem authorities, without themselves referring to the original authority cited, are constantly reproducing falsehood, promulgating it, and giving to it weight as truth, when nothing is more averse from their intention than to do so.

In nothing is this more the case than in the very class of works in which of all others accuracy and truth are most requisite – are, indeed, indispensable – we mean what are now called juvenile books, school-books for the use of the young. These works are, unfortunately, rarely or never composed by men of science, men of historical knowledge, men of high general information, or literary standing, although – embracing, as they pretend to do, the whole range of human knowledge from astronomy and the direct sciences, through universal history to political economy, physical and moral philosophy, and philology – they, above all beside, should be the work of men of unerring accuracy in the statement of facts. Since it is easier to teach three new ideas to a mind unimpressed, than to eradicate from it one preconceived opinion, false or true.

It is enough to say in this connection, that out of all the modern "histories for the young" we have ever seen – and we have seen scores, if not hundreds – we never read six successive pages which did not contain either a disgraceful blunder as to fact, or a more disgraceful perversion of facts to meet popular prejudices or popular passions. In the pseudoscientific text-books, sheer stupidity and ignorance produce the same effects.

All this class of books, as a rule, are worse than worthless; and we had far rather see the rising generation return to "Mother Goose," "Little Red Riding Hood," and "Cinderella," and thence to "Sandford and Merton," Mrs. Barbauld, Miss Edgeworth, and works and writers of the like calibre, until fit to commence the real study of real history and real science, than have them stuffed with such farragoes of imbecility, reckless assertion, and plausible falsehood – under the plea of knowledge made popular – as, for instance, most of "The Histories for the Young," which afford a perfect type of the class of works, to which we have just alluded.

To this train of thought we have been led, by observing the pertinacious and absurd folly, on the part of all the writers on the subject before us, of ascribing the art of wood-engraving and printing, to every nation which never possessed it, and the invention of it to none knows who.

It really seems that to these worthies it is quite argument enough to say, because the Chinese, Egyptians, Phœnicians, Greeks, or Romans did *not* possess such an art, but *did* possess such another, therefore they *must* have possessed that which they did not possess.

Thus – because the Egyptians made wooden moulds with reversed characters or figures, wherein to make fictile bricks, jars, or other implements – they possessed the art of wood-engraving and printing.

Because the Greeks and Romans used to engrave their laws and decrees on stone or metal, both in intaglio and relief, and even colored the depressed or prominent characters with various pigments, therefore the Greeks and Romans made use of printing and wood or metallic engraving – as understood in the present sense; that is to say, for the purpose of taking reversed impressions on paper, parchment, or the like, with ink or other pigments, from prepared blocks, or forms of movable types – the impressions, not the blocks or forms, being legible in the usual mode, from left to right, or the reverse, according to the nature of the character or language.

It is, perhaps, scarcely necessary now to state, not only that there is no reason for believing that any ancient nation was acquainted at all with any thing in the least degree approaching to the modern art of printing, but that there is a positive certainty that no people of antiquity was so acquainted.

In the same manner may be dismissed the Chinese claim to originality in this invention. So early as the 12th century, stamps, engraved with monograms, or fanciful figures, assumed by individuals as their signs manuals, wrought on them in relief, were in common use. They were made of wood or metal, dipped in ink or paint, and impressed on any document requiring signature; and they seem to have continued occasionally in use so late as to the reign of King Henry VIII. of England, whose warrant for the execution of the poet Surrey was signed by this method, and not by royal sign manual; the king being then in *articulo mortis*, and unable to sign his name.

At a much earlier period than this – so early, indeed, as the sixth century – the Emperor Justin I., in signing documents, made use of what is now called a stencil, a thin plate of wood or metal perforated with figures, characters, or other designs, which, when applied to a surface of blank paper or parchment, leaves the design on the exposed surface of the paper, all else being covered, open to the operation of a brush or pencil, which necessarily leaves the impress of the form invariably the same on all occasions.

From this practice of stenciling, perhaps, or more probably from the dipping of the signet-ring, which had been used for ages in impressing wax and the like, into ink, and impressing it on paper, was derived the idea of stamps engraved with monograms, and used as signatures – an invention of vast practical utility in an age when not one man of five hundred, even of kings and nobles, unless he were in holy orders, was capable of signing, or even reading, his own name. One of the earliest of

these stamps is that of Gundisalvo Tellez, one of the Gothic invaders of Spain, affixed to a charter bearing date A. D. 840; and the same sign, after his death, was appended, by his widow, Flamula, to a grant for the good of her husband's soul.

Now it has never been asserted or pretended that the Chinese, even at a much later period than this, had advanced beyond the use of monogram stamps impinged by hand.

In lack, therefore, of more direct evidence, this is enough to justify us in rejecting the claim put forward in behalf of the Chinese, to the invention of the art of wood-engraving or typography, and the idea of its having been imported from them into Europe.

But there is no lack of more direct evidence. For in the year of the Christian era 1271, Marco Polo, a Venetian trader, voyaged from Venice to Tartary and China, in the reign of the Emperor Rublai Khan, his uncle and father having visited the same countries some quarter of a century before. On his return, he published an account of his travels, very copious and very full of marvelous truths and marvelous errors – most of the latter having been since shown to be misconceptions of real truths, not falsehoods. In this work, Marco Polo makes no mention of the use of printing-blocks, or of cannon, or of the mariner's compass by the Chinese. Hence it is morally certain, either that the Chinese did not at that period possess any one of these inventions – all of which have been attributed to them – at all, or that the people for whom Marco Polo wrote, the Venetians in particular, and Europeans in general, possessed them in the same degree of perfection with the Chinese, at the same or at an earlier period.

It is, indeed, probable, that the Chinese claim was only put in by favorers of the Venetian claim to the European invention or introduction of this art, in order to account reasonably for their priority.

And it would be curious, were it not almost invariably the case, that the forged legend introduced to support a false claim, when analyzed and searched by a clear head, not only confutes itself, but that which it was intended to establish.

It is very satisfactorily proved that previous to the fourteenth century, although stencils and stamps had been in use for some time, perhaps for some centuries, as means for securing the invariability of monogram signatures, and of giving the power of signing papers to those who could not write, no use whatever had been made or attempted of either, for the purpose of reproduction from a single type and indefinite multiplication of copies.

This is what we mean by printing and engraving; and until it be shown that some nation of antiquity did invent and use such instruments for such purposes, all discussion is absurd.

It were just as rational to argue, that, because the Chinese, Egyptians, Greeks and Romans possessed boilers, and boiling water, and steam, with which they might have propelled steamboats, had they known how, therefore they *had* steamboats – as to assert, that, because they possessed reversed moulds and stamps, in relief or intaglio, for the making of pottery, with which they might have produced colored impressions on papyrus or linen, had they conceived the idea of doing so, therefore they *did* reproduce works of art from plates or types.

It appears most probable that the first direct approach to this art was the practice, when playing cards were first introduced in Europe, of the German card-makers, to use stencils in order to draw, accurately and invariably, the outlines of the figures on their cards, which were then filled in with color by the hand. This, though not originally intended to facilitate multiplication so much as accuracy, would naturally suggest that idea.

The next known step, in progress, was the use of monogrammatic stamps, some of them of most elaborate and exquisite design and execution, for the impression on illuminated manuscripts, such as missals, breviaries, bibles and other religious works, of the large, beautiful and often many-colored initial letters.

And these, there is much reason to believe, were more or less in use so early as A. D. 1400.

The history of the first known wood-cut is as follows. From a convent within fifty miles of Augsburgh, where in 1418 the first mention of a kartenmacher, card-engraver, occurs, the earliest wood-cut known – the St. Christopher, now in the collection of the Earl of Spencer – was obtained.

The outlines are engraved on wood, and thence taken off in dark coloring matter, resembling printer's ink, on the paper; after which the impression appears to have been colored by means of a stencil.

This cut is extremely well-designed, as regards the principal figures, which, with the exception of the extremities, are executed in such style as would not disgrace Albert Durer himself. The perspective is – as usual, in old wood-cuts even of a later date than this, and executed by artists of high grade, such as Hans Burgmair and Hans Schaufflein, nearly a century afterward – utterly disregarded. It was, indeed, scarce understood.

The second and third cuts in existence, also in Lord Spencer's collection, are an "Annunciation" and "St. Bridget," both similarly printed in outline, and colored by stenciling, the last of these is curious, as showing, on examination of the back of the plate – for it is not, like the others, pasted into a book – that the impression was not taken by means of a press, but by friction on the paper superimposed to the block, by means of a burnisher or similar instrument, just as proofs are now taken by engravers.

From this period, the succession and progress of the art is clearly to be traced. First, through figure blocks, with letterings sculptured on them in relief, to solid blocks carved in wood and printing off entire pages, as is done by modern stereotypes, with or without pictures attached. At this stage of the work the idea of reproduction and multiplication had obtained as the primary objects of the art.

The next step was the invention of movable types capable of being combined at will into words and sentences, braced into the form of pages, and, the work completed, distributed, and combined anew for the composition of other and different works. From this period, wood-engraving proper, and type-cutting in wood, became separate arts; and ere long – metallic types engraved at first, and afterward cast, replacing the wooden letters – the latter passed into oblivion, while the former has increased gradually and steadily, though with occasional pauses and interruptions, until the present day; when it has attained its highest known perfection, while it is still so far progressive, that it is not easy to predict what may be expected of its future improvement and excellence.

And here it may be well, since few persons comparatively speaking, even of those who are admirers and more or less judges of the art, have a distinct idea of its precise character and nature, to explain briefly in what it consists and wherein it differs from engraving on copper or steel.

All engraving consists of cutting with a sharp instrument into a hard surface, whether of wood or metal, so that when the picture is perfected on the wood or metal, ink may be applied to the surface, from which fac-similies may be taken off by the impression of moistened paper on the block or plate by means either of friction or pressure.

The practice thus far is identical whether steel, copper or wood is to be the material engraved.

But with this all similarity ends.

In steel or copperplate-engravings the ink, when applied, is received into the engraved lines, and is wiped off from the prominent portions; so that, in the impressions taken on paper, the lines cut into the plate communicate the shades, the portions left in relief on the plate remain colorless and blank.

In wood-engravings, on the contrary, the ink, when applied, is taken up by the parts left prominent, and never penetrates into the engraved lines; so that, in the impressions taken on paper, the portions of the wood less prominent communicate the shades, the portions cut away, on the block, remain colorless and blank.

Thus the same process, pursued on the metallic plate, and on the wood-block, produces effects diametrically opposite, and to produce the same effects from the two materials converse processes must be pursued.

Thus we will engrave the word on a plate of metal, and on a block of wood, and let these two engravings be perfect fac-similies, line for line alike, in form, length, width and depth; then, the impression taken from the engraved plate of metal, being derived from the depressed lines, filled with ink, *into* which the paper is forced by the action of the press, will present the appearance shown above.

But, the impression taken from the engraved block of wood, being derived from the elevated portions of the block, covered with ink, *upon* which the paper is impinged by the action of the press, will give the appearance presented below.

Observe, therefore, that as on the two engravings, the same work produces results exactly the reverse, one of the other; so to produce the same effect from each of the two engravings, we must have recourse to two different processes.

The former of the above two cuts, is the effect produced on paper from a metallic plate, into the surface of which the lines producing the shades are engraved or cut in.

The same effects precisely may be produced on paper from a wood-block; but, in order to produce it, all the portions of the wood-block, which now give solid black upon the paper, must be cut out of the wood; leaving the lines, which now give white on the paper, prominent, so as to receive the ink and make their impression on the surface to be printed.

The same end could be attained on the other side – that is to say, a light lettering on a dark ground – by cutting away all the metal, except the lines now producing dark impressions on a light ground, which would then give light lines on a dark ground; but the labor of doing this would be interminable, and the advantage gained, nothing.

This principle once understood, the whole system becomes comprehensible at a glance. If, in an engraving on metal, all the lines cut into the plate were of equal depth and capacity, all the impressions would be equal as to shade, and the print would display an impression in pure black and pure white only, without intermediate tints.

So, in cutting a wood block, if all the prominent parts be left equally prominent, the quantity of ink deposited by each and all will be identical, and the impression will be, as before, in simple black and white.

To produce greater depth of shadow in one part of a metallic engraving than in others, the lines must be cut deepest where the shadow is to be the blackest, and thence graduated, less and less deep, to the plain surface, which gives pure white.

To produce greater depth of shadows in one part of a wood-cut than in others, the prominent lines must be left most prominent where the shadow is to be the blackest; and thence shaved away more and more, as the shadows are to be less intense, until no lines at all are left on which the paper can impinge, and *there* will be pure white.

The superiority of wood-blocks to metallic-plates consists in their superior capacity for impressing broad, solid masses of pure black, as contrasted with pure white. An effect which cannot be readily or effectually given on metal. Since in intaglio engraving the nearest approach to absolute blackness, extending over spaces, is obtained by the continual crossing and recrossing of slender black lines, until the white interstices become infinitesimal, and their effect is more or less swallowed up and lost. The superiority of metal to wood, on the other hand, consists in the greater readiness and facility with which it transfers to paper the finest and most delicate hair-strokes, such as could hardly be left to sustain themselves in wood when all surrounding lights are cut away.

This leads to a different mode of *handling* in the two materials. Shadows in metallic engraving are produced, mainly, by what is called cross-hatching, or cutting lines, intersecting each other diagonally, with white, lozenge-shaped intersections between them. This method cannot be resorted to with any facility on wood, as any one may comprehend, who will consider, that in one case, on metal, the engraver has only to cut long, continuous lines intersecting each other, each line by a single stroke; leaving the interstices to take care of themselves; while in the other, on wood, every separate lozenge-shaped interstice has to be cut out in precise and regular form, and with such nicety as to leave the intersections, often no wider than a hair, in continuous and accurate lines.

The labor and waste of time in this method is enormous; and, although it is adhered to by some artists, the better and, in our opinion, more effective way of giving shadow is by leaving greater

breadth to the prominent lines where the heavier shadows are required, and so diminishing the size of the light spaces left, though in a different direction, and by a different method.

The finest cross-hatched wood-cut in existence, probably the finest ever executed, is a large cut of the death of Dentatus, engraved by Mr. Harvey from the design of Mr. R. B. Haydon. But, though it is unquestionably the most elaborately engraved large wood-cut that ever has appeared, and though parts of it are better than any thing earlier or later, in the same style, it cannot be regarded as a successful specimen of the art. It is, in fact, an attempt to rival a copperplate-engraving on wood; and, as such, has transcended the powers of the art, and the capabilities of the material.

That Mr. Harvey has effected with wood all that could be effected on wood in this manner, is undeniable; but that he could have produced much more with wood, in a different manner, is equally certain.

If the *ne plus ultra* of wood-engraving were to produce imitations of metal-engraving of inferior effect, and with much greater labor, then Mr. Harvey's Dentatus were the *ne plus ultra* of wood-engraving.

But wood, within its own legitimate bounds, is greater and more effective, in some peculiarities, than copper. Just as copper, in other peculiarities, is greater than wood. Neither was ever intended to clash or contend with the other. Each in its own empire is supreme.

It should be added here, before quitting the technical portion of the subject, that one advantage possessed by wood-cuts is this – that giving their impression from the elevated surfaces precisely as metallic types, the wood-blocks can be inserted in the same forms among the types; so that the impressions can be worked by the same press, and printed on the same pages, while the reverse sides can also be printed, either with letter-press or other wood-cuts, so as to form part and parcel of one continuous narrative. Metallic-plates, on the contrary, must be worked by an entirely different press, and on separate pages, apart from the letter-press, and on one side of the paper only.

This gives a great superiority for purposes of illustration, whether by anagrams or slight sketches of things described in the body of the work, to the wood-cut, above the copper-plate. And, indeed, this admitted advantage, with the extreme comparative cheapness of wood-engraving, and the rare delicacy and beauty which has been attained by the more modern artists of the day, has led to the very general adoption of this style of illustration for ornamented volumes.

It is, in fact, rapidly gaining the preference over metallic engraving; the great expense and very inferior durability of copper, and the coldness, hardness, and absence of richness which seem to be inherent to steel, having gone far to banish both from general use as ornaments or additions to printed books.

As the finest of all methods of reproducing large pictures and fine productions of art; as affording exquisite adornments for the walls of ornamented apartments – vastly superior, would people but believe it, to second-rate oil-paintings – as the legitimate treasures of hoarded portfolios, fine copperplate-engravings will and *must* ever hold their place. But for the illustration of books – as books must now be – accessible to the million, we fully believe that wood is the best, and soon to be almost the sole material.

The day of steel,[1] we think and hope, is already past, for though we have seen good things executed on that most thankless and intractable of substances, we never saw such that we did not regret the time, the talent, and the toil, so comparatively wasted.

Now, to return to the history of wood-cutting proper, we find that but little improvement was effected in the mechanical part, little filling in, very slight efforts at representing texture, and scarcely

[1] It may not probably be known to ordinary readers that while a copperplate-engraving begins to fail after two or three thousand copies have been taken from it, and is worthless after six or eight thousand, fifty or sixty thousand can be taken from wood-blocks, and yet more from steel, without detriment.

any chiaro-scuro having been attempted, previous to the invention of movable types and the use of the press.

It is probable that Gutenberg first conceived the idea of movable types, at Strasburg, in or about 1436; and that "with the aid of Faust's money, and Sheffer's ingenuity,"[2] the art was perfected at Mentz in or about 1452. "In the first book which appeared with a date and the printer's name," continues the author I have quoted above – "The Psalter printed by Faust and Scheffer at Mentz, in 1457 – the large initial letters, engraved on wood, and printed in red and blue ink, are the most beautiful specimens of this kind of ornament which the united efforts of the wood-engraver and the pressman have produced. They have been imitated in modern times but not excelled. As they are the first letters, in point of time, printed with two colors, so are they likely to continue the first in point of excellence."

From this time the art made rapid progress, as connected with the press, which in a very rude and primitive state now came generally into vogue, though the machine of 1460 was as far different from one of Hoe's marvelous power-presses as is an Indian's bark canoe from an Atlantic steamer.

Between this date and the conclusion of the century, we find one wood-engraving by an unknown author, the frontispiece of Breydenbach's Travels, so infinitely superior to every thing that succeeded it for many years as to deserve special notice. It contains the first specimen of cross-hatching known to exist, and attempts both shade and color, not without considerable effect. It is said, by the author above quoted, "not to be only the finest wood-engraving up to that date, but to be in point of design and execution as far superior to the best cuts in the Nuremberg Chronicle, as Albert Durer's designs are to the cuts in the oldest edition of the "Poor Preacher's Bible." The engraved frontispiece, in question, bears the date 1486, the Nuremberg Chronicle of 1493; and the *Biblia Pauperum*, as it is – probably erroneously – called, in various editions from 1462 to 1475."

The following cut is a representation of the press in use at this period, and for some considerable time afterward. It is a fac-simile of an engraving of "the press of Jodocus Badius Ascensianus, from the title page of a book printed by him in 1498."

The above engraving, although it is not inserted here as a specimen of the style of engraving at this date, but merely as a representation of the machinery in use at the time, may be regarded, on the whole, as about on an average with the ordinary work of the period, both as to design and execution; it is vastly superior to the cuts of the "*Biblia Pauperum*," and "*Speculum Humanæ Salvationis*," and yet more so to that of the Nuremberg Chronicles; it is inferior to the frontispiece of Breydenbach's Travels, which, it has been stated above, is the *chef-d'œuvre* of this epoch; but, although slight and sketchy, it is in all respects superior to the hideous monstrosities which disgrace, in lieu of ornamenting, four-fifths of the cheap publications of the day.

We have now, however, arrived at a period when wood-engraving became not merely a calling, but an art; when painters of the highest degree, higher than ever before or since, were proud and pleased, and, what is more, *able* to be designers on wood for the engravers. From this date, until the troubles of the civil war and commonwealth in England, and religious conflicts on the continent of Europe, annihilated the arts, put the muses to flight – with one sublime exception – and almost overthrew society itself, such painters as Wolgemuth, and Pleydenwurth, Cranach, and Burgmair, and more famous yet, Albert Durer and Hans Holbein, became the chief patrons and promulgators of the art, constantly themselves designing and completing drawings on wood, for the engraver, although there is no reason for believing – but on the contrary every reason for denying – that these illustrious men ever employed themselves in actual cutting; which was then a process purely mechanical, practiced by persons utterly devoid of all knowledge either of composition or correct drawing. At this time, all the merit of the wood-cut rested with the designer and artist, none with the wood-cutter. Now it is shared by both alike, and to produce an excellent wood-engraving, excellence

[2] History Wood Engraving. Jackson. London.

both in the artist and the engraver is indispensable. Of a bad or indifferent[34] composition and design, the best engraver that ever lived cannot make a good picture. And in no smaller degree will the best picture ever composed and drawn by the best artist be ruined, and prove an utter failure, if intrusted to the hands of an ignorant, incompetent, or reckless engraver.

Albert Durer – of whom the following cut is a fac-simile likeness, from a wood-engraving designed by himself – was born at Nuremburg, May 20, 1471, the son of Albert Durer, a goldsmith by profession, a Hungarian by birth.

In those days goldsmiths were artists of the highest order; necessarily sculptors, designers and engravers – witness Benevenuto, Cellini, and others, such as Bandinelli, and various great Italians, whom it would be too long to note, scarcely inferior.

Ambitious of greater things, Durer became apprentice to Michael Wolgemuth, the principal painter of his age and country; and, after having served his time, traveled, married unhappily, and died ere he reached old age, but not before he obtained world-wide, and time-defying renown, as a great painter, as more than a great copperplate-engraver – for it is only the greatest of the present day who are capable of producing fac-similes of his works – and, what most concerns us, as a great patron and promoter of wood-engraving.

That he was no wood-engraver himself, is we consider certainly proved, although by proofs negative.

They are briefly these.

The designs of the wood-cuts ascribed to Albert are in all respects equal to the designs of copper-engravings, known to be both designed and engraved by himself.

The execution and handling on his copperplates is superior to those of any other artist of his day.

Of his wood-cuts, while the designs are transcendent, the execution is ordinary; nor is there any perceptible variation between the execution of the cuts attributed to him, and those known to have been cut by Resch, from his designs.

The style of Durer's drawing on wood shows the hand of a man used to copper; and is not that the best calculated for producing effects on wood.

Now it is scarcely credible, or even to be imagined, that an artist, who should have attained, himself almost untaught – for whoever they were, he manifestly surpasses all his teachers – such wonderful power and facility in *engraving* on one substance, should not, with equal practice on a different substance, have evinced the same – or at least *some*– superiority in handling it.

"There are about two hundred subjects, engraved on wood," we quote, as before, from Jackson's History of Wood-Engraving, "which are marked with the initials of Albert Durer's name, and the greater part of them, though evidently designed by the hand of a master, are engraved in a manner which certainly denotes no very great excellence. Of the remainder, which are better engraved, it would be difficult to point out one which displays execution so decidedly superior as to enable any person to say positively that it must have been cut by Durer. The earliest engravings on wood with Durer's mark are sixteen cuts illustrative of the Apocalypse, first published in 1498; and between that

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[3] As an exemplication of the above statement, two wood-cuts are here submitted, with the view of proving the absolute necessity of a good artist-like drawing to enable the engraver to produce a handsome or even creditable wood-cut. Both the following cuts are from one sketch, by the great landscape-painter Morland – the one meagre, tame, unfilled, and presenting nothing beyond a bare, cold outline; the other a remarkably spirited and flowing sketch, not one of the extra or additional lines being supernumerary, but each tending to give both effect and support to the outline.

[4] And here it is well to point out to those seeking to obtain good wood-engravings, for the illustration of works which they propose to write or publish, that there are two absurdities, about equally great, usually committed by persons in their position. The one of which is the ordering and paying liberally for the work of a clever artist and designer, and then mulcting the engraver one half the price he ought to receive, if he do his duty and spend the requisite time on the work, and wondering why the product is a wretched botch and not a fine work of art. The other is the converse of this, paying an engraver well to cut, and grudging the extra expense of a good artist. For it must be remembered, that in wood-engraving the artist and designer, where they are not one, as in the case of Bewick and a few others – and this is a rare case – must work in unity of intent, with a perfect comprehension of, and a full sympathy in, the meaning and genius each of the other.

and 1528, the year of his death, it is likely that nearly all the others were executed. The cuts of the Apocalypse generally are much superior to all wood-engravings that had previously appeared, both in design and execution; but if they be examined by any person conversant with the practice of the art, it will be perceived that their superiority is not owing to any delicacy in the lines, which would render them difficult to engrave, but from the ability of the person by whom they were drawn, and from his knowledge of the capabilities of the art. Looking at the state of wood-engraving at the period when those cuts were published, I cannot think that the artist who made the drawings would experience any difficulty in finding persons capable of engraving them."

It matters not, however, to the history of the art, whether Durer engraved, or did not engrave, with his own hand; it is sufficient for us to know, that it was he, and his friends and successors, who raised it to the position which it in their time occupied, and which, after a dark interregnum, it now occupies again, how high to soar hereafter we know not.

The works of Durer, "The Triumphal Procession of Maximilian," in which he was a collaborateur with Hans Burgmair, The "Dance Macaber," ascribed improperly to Hans Holbein, all executed nearly at this period, if they did not attain the highest attainable pitch of perfection, fell not at least far short of it. If, in after days, the skill of the manual workman has increased, the excellence of the designer is less marked – or, what amounts to the same thing, the best designers have not, until within the last half century, applied their talents to this art. At all events, and all things considered, we may assume with Mr. Jackson, that "at no time does the art appear to have been more flourishing, or more highly esteemed, than in the reign of its great patron the Emperor Maximilian."

From the date of the appearance of the Dance Macaber, which is considered by good judges equal at least to any wood-cuts ever executed, the art began to decline. In England – later, perhaps, to receive it than the more early refined nations of the continent – it lingered through the reign of Elizabeth; but during the reign of the bestial Scottish despot who succeeded her, and his unhappy race, went out, like an exhausted lamp, for want of nutriment. The Italian school yet for awhile clung to existence, distinguished by inferior vigor, but by superior finish and neatness both of drawing and workmanship, and then perished, effete before mature, and never, we believe, has again revived.

How low the art of wood-engraving sunk after the commencement of the seventeenth century, and how small appeared the chance of its ever rising again from its ashes, may be seen at a glance; by comparing the specimens above, none of them pretending to be exemplars of the *finest* work of their several epochs, with the following miserable abortion, than which, it needs not now to say, no tolerable apprentice, of one year's standing in a respectable office, could, unless he tried to do so, produce any thing worse either in design or execution.

And yet this is a very fair example of the style of wood-engraving from the reign of Charles II. to that of George III., with few exceptions. In a word, for some unaccountable reason, this noble art, as an art, had fallen every where – though nowhere, as some persons have fancied, either disused or forgotten – into desuetude, neglect, and contempt, from about the year 1700, until near the close of the eighteenth century. This, too, occurred at a period when, in many other sister branches, art stood as high, perhaps higher than ever, when Antony Vandyke, and Peter Joly, and Godfrey Kneller, and Joshua Reynolds painted, and copper-engraving had shown no decadence, but the reverse, either on the Continent or in England.

On the 10th of August, 1753, at Cherryburn, near Newcastle on Tyne, in Northumberland, was born, the son of a poor owner of a small landsale colliery, Thomas Bewick, who, by his own almost unassisted talents, raised this art, single-handed, from utter disgrace, and all but oblivion, to its very highest pitch of excellence – for in generic drawing and engraving especially, he never has found, and probably never will find, an equal. Designer, draughtsman, engraver, three in one, he has produced wood-cuts which never have been approached, and of which it has been said by competent authority, that "every line that is to be perceived in this, is the best that could have been desired to express the engraver's perfect idea of his subject."

It is said that as a boy this great man was employed as a laborer at his father's coal-pit; but this may be dismissed as improbable at least, since he was early sent to school by his father at the Parsonage House of Ovingham, in an adjoining parish, and was subsequently, in compliance with his own desire, apprenticed to Mr. Beilly, an engraver at Newcastle, where, having by a mere accident of the office been employed to cut some mathematical diagrams on wood, he acquired a taste for the art sufficient to urge him on, without much encouragement, to its prosecution. Shortly after the expiration of his apprenticeship, he returned to his father's house, and there applied himself earnestly to the study of the art in which he was ultimately to gain so much renown.

In 1775, when he was twenty-two years old, he received a premium from the Society for the Encouragement of Arts and Manufactures for a cut of "the Huntsman and the Old Hound," which was first printed in an edition of Gay's Fables, published by T. Saint, Newcastle, 1779 – a fac-simile of which is given below.

Although this juvenile engraving of the great master in no respect approaches the greatest, or even the average, of his mature works, it yet exhibits great talent and greater promise. The whole later tendency of wood-engraving, such as it was, had been toward conventional method, not toward the study and imitation of nature; and here at once, in his earliest success, we find the learner leaving all rules and precepts behind him, and dashing at once into the bold, free, and irregular imitations of nature, by which he was thereafter to achieve a reputation, create a school, and redeem a noble art from the disrepute into which it had fallen; not – as some foolishly have asserted – to revive a lost or forgotten art; for wood-cutting never had been, even in the worst times, *disused*, but only degraded from its high estate and abused to base purposes.

It must be evident that within the limits of an article, such as this, it must be impossible to enter fully into the merits and peculiarities of all the wood-engravers of four centuries; when at the present day alone there are living more than twenty, to each of whom more than an equal space were fairly due, if we but had the space to bestow in proportion to their deserts. As it is, even on Bewick, greatest, in our opinion, most original, most truthful to nature, and least a mannerist of all who have succeeded or preceded him, we can dwell long enough only to speak of him generally as the founder of the modern school, superior in delineation of texture, in force, in spirit, and in the true feeling and genius of the art of wood-cutting, to all the world beside. To those who are acquainted with his "British Birds," we need only refer to his "woodcock" and his "partridge," more especially, in justification of our unqualified praise and admiration; to those who are not, we can only give our earnest advice to become acquainted with them as soon as may be. Bewick had many scholars and pupils, who have brought down his reputation and much of his skill to the present day. Mr. Harvey, one of his most eminent successors, long considered his best pupil, has given up engraving for designing, still maintaining high character for ability; but, though a man of unquestioned talent, he is rather too much of a mannerist greatly to delight ourselves. The delicious foliage of Linton, king of all modern artists, is known to all our readers from the fine wood-cuts in the illustrated London papers; as are the traits and characteristics of Thompson, Foster, and half a dozen others, although their names may not be so familiar as their works. Beyond all doubt, the English school of wood-cutting, whether for loose, sketchy, landscape, or elaborate portraiture, is now the finest, freest, simplest, and most natural in the world; the French excel in a sort of bold pen and inky style of character and caste delineation – but it is national, not universal – tricky, not artistical, and lacking the "touch of nature which makes the whole world kin."

No country has, however, made such wonderful strides in this art as America; for twenty years ago scarce twenty wood-engravings were published annually in America; now we should be afraid to say how many times twenty thousand.

Then, there were, to the best of our memory, but two wood-cutters of any great note or merit – certainly in New York, we believe in America. Dr. Alex'r. Anderson, supposed to be the first who produced any thing worthy of note in this profession, commenced the business, which he still pursues,

in 1798 or 1799. Mr. J. A. Adams was the next, who applied himself to the art in 1826. He has now retired, it is understood, on a handsome competency earned by his talent and industry; chiefly, it is said, through his engagement on Harper's illustrated Bible, a work which owes its celebrity to its prestige, as being the first thing of the kind issued in the United States, and by no means to its merits as a work of art. When issued, in the opinions of those who knew, it was barely tolerable for this country, in which the art was nearly unknown; were it to appear now, it would be merely contemptible.

Not to be over boastful of our own columns, we do not fear to challenge comparison between the generic cuts of game, which have appeared in Graham, within the last two years, from the gravers of Devereux and Brightly, against any thing of their character since the days of Bewick. The cuts of Orr – to whom we had intended to allude more fully – in this paper, as well as those of Devereux generally, prove what we shall do hereafter. But want of space, in this number, circumscribes much complimentary mention of these and many other artists.

Note. – The head and tail-pieces of this article, without assuming to be splendid or unusual specimens of art, are given as characteristic examples of the modern style in the treatment of foliage and architecture.

RIVERS

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BY THOMAS MILNER, M. A

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(Concluded from page 463.)

Many rivers are subject to a considerable elevation of the level of their waters. This is periodical or irregular in its occurrence, according to the nature of the producing cause. Casual temporary floodings, as the effect of extraordinary rains, are common to the streams of most countries, and sometimes occasion great changes of the surface, and destruction of life and property. One of the most remarkable instances of this kind in modern times, occurred on the 4th of August, 1829, in Scotland, when the Nairn, Spey, and Findhorn rose above their natural boundaries, and spread a devastating deluge over the surrounding country. The rain which produced this flood fell chiefly on the Monadhleadh Mountains, where the rivers in question have their feeders, situated between the south of Loch Ness and the group of the Cairngorums. Sir Thomas Dick Lauder, in his interesting account of this inundation, considers the westerly winds, which prevailed for some time previously, after a season of unusual heat, to have produced a gradual accumulation of vapor, somewhere north of our island; and the column being suddenly impelled by a strong north-easterly blast, it was driven toward the south-west, till arrested in its course by the lofty mountains upon which it discharged itself in torrents perfectly unexampled. The rain fell occasionally in heavy drops, but was for the most part broken by the blast into extremely minute particles, so thick that the very air itself seemed to be descending in one mass of water upon the earth. It deluged every house whose windows were exposed to the south-east. The lesser animals, the birds, and especially game of all kinds, were destroyed in great numbers, by the rain alone; and the mother partridge, with her progeny and mate, were found chilled to death amidst the drenching wet. At Huntly Lodge, according to an accurate observation, between five o'clock of the morning of the 3d of August and the same hour of the succeeding day there fell 3¾ inches of rain, or about one-sixth of our annual allowance of rain descended there in twenty-four hours. This was at a considerable distance from the mountains – the central scene of the rain – where its quantity must have been prodigiously greater, sufficient to account for the tremendous flood that followed, far exceeding in its rise, duration, and havoc, any other that ever affected the same locality. The Findhorn and Spey assumed the appearance of inland seas; and, when the former began to ebb, a fine salmon was driven ashore and captured at an elevation of fifty feet above its ordinary level. Most of the rivers of the temperate zones are subject to these irregular floodings from the same cause, especially those which take their rise in high mountain regions, the St. Lawrence being the most remarkable exception, the level of which is not affected by either rains or drought. The vast lakes from which this river issues furnish its channel with an inexhaustible supply of water, and present a surface too extensive to be sensibly elevated by any extraordinary rains. A strong westerly wind, however, will affect the level of the St. Lawrence, and occasion a rise of six feet in the waters to the eastern extremity of Lake Erie. An easterly wind also upon the Orinoco will check its current,

elevate the upper part of the stream, and force its waters into the channels of its tributaries, giving them a backward flow, and causing them to be flooded; and a northerly wind will drive the Baltic up the mouths of the Oder, and raise its level for a considerable distance. In a similar manner, the Neva rises when a strong wind blows from the Gulf of Finland; and that occurrence – taking place coincidently with high water and the breaking up of the ice, would create an inundation sufficient to drown the whole population of St. Petersburg, and convert that brilliant capital, with all its sumptuous palaces, into a chaotic mass of ruins. We have the materials of this statement from M. Kohl. The Gulf of Finland runs to a point as it approaches the mouth of the Neva, where the most violent gales are always those from the west; so that the mass of waters on such occasions is always forcibly impelled toward the city. The islands forming the delta of the Neva, on which St. Petersburg stands, are extremely low and flat; and the highest point in the city is probably not more than twelve or fourteen feet above the average level of the sea. A rise of fifteen feet is therefore enough to place all St. Petersburg under water, and a rise of thirty feet is enough to drown almost every human being in the place. Hence the inhabitants of the capital are in constant danger of destruction at the period referred to, and can never be certain that the 500,000 of them may not, within the next twenty-four hours, be driven out of their houses to find, in multitudes of instances, a watery grave. This is not a chimerical danger; for, during its short continuance, the city of the Czar has experienced some formidable inundations. The only hope of this apparently doomed city is that the three circumstances may never be coincident, namely, high water, the breaking up of the ice, and a gale of wind from the west. It is nevertheless true, that the wind is very often westerly during spring, and the ice floating in the Neva and the Gulf of Finland is of a bulk amply sufficient to oppose a formidable obstacle to the egress of the water; so that it will not be surprising if St. Petersburg, after suddenly rising like a meteor from the swamps of Finland, should still more suddenly be extinguished in them.

The periodical rise of rivers is either diurnal, semi-annual, or annual, and proceeds from a variety of causes. Where streams descend immediately from mountains covered with snow, the heat of the sun melting the snow produces high water every day, the increase being the greatest in the hottest days. In Peru and Chili there are small rivers which flow only during the day, because they are fed entirely by the melting of the snow upon the summit of the Andes, which takes place only when the solar influence is in action. In Hindûstan, and some parts of Africa, rivers exist, which, though they flow night and day, are, from the accession of snow-water, the greatest by day. Those rivers also which fall into the sea have their level daily varied by the tidal wave for some distance from their mouths, the extent through which the influence of the tides is felt being modified by the breadth and shape of their channels and the force of their current. The wider and more direct the bed of a stream communicating with the ocean, and the slower its motion the farther the tide will penetrate; whereas a narrow and sinuous course, and a great velocity, offer obstructions to its progress. The tide of the Atlantic is perceived four hundred miles along the course of the Amazon, and that of the German Ocean extends about seventy miles up the Thames. Important facilities are afforded to the navigation of many rivers by this circumstance, for they are only accessible to vessels of large burden at high water. The rapid of Richelieu, on the St. Lawrence, where the river contracts, and has its course obstructed by rocks, impedes the navigation between Montreal and Quebec, except at high tide, when the water rises fifteen or eighteen feet, and the rapid entirely disappears. A semi-annual or annual rise alone distinguishes the rivers of inter-tropical regions, and of countries bordering on the torrid zone. The semi-annual rise is a feature of those rivers which drain high mountain ranges, and proceeds from the two independent causes, of the melting of the snows in spring or summer, and the great seasonal rains to which such districts are subject. The rivers which have only one annual rise are influenced by the latter cause alone, or by the two acting coincidently, and producing a grand periodical flood. The Tigris rises twice in the year – first, and most remarkably, in April, in consequence of the melting of the snows in the mountains of Armenia; and secondly, in November, through an accession from the periodical rains. The Mississippi likewise is subject to two rises in

the year – one about January, occasioned by the periodical rains that fall toward the lower part of its course; but the grand flood commences in March, and continues till June, proceeding from the melting of the ice in the upper part of the continent, where the Missouri and other tributary streams have their origin. A very striking spectacle is exhibited by this river in the season of inundation. It rises from forty to fifty feet in some parts of its course, and is from thirty to a hundred miles wide, all overshaded with forest, except the interior stripe consisting of its bed. The water stands among the trees from ten to fifteen feet in height, and the appearance is exactly that of a forest rising from a lake, with its waters in rapid motion. For the protection of the cultivated lands, and to prevent their conversion into permanent swamps, an embankment, called the Levee, has been raised, which extends two hundred miles on the eastern shore of the river, and three hundred on the western. In Asia, the Ganges, Indus, and Euphrates exhibit inundations upon a similarly great scale. The Euphrates slightly increases in January, but the grand flood begins soon after the middle of March. It attains its height about the 20th of May, after which it falls rapidly till June. The decrease then proceeds gradually until the middle of November, when the stream is at its lowest. The rise of the water at Anah, above the site of ancient Babylon, occasionally amounts to eighteen feet, sometimes entering that town, running with a velocity exceeding five miles an hour. The moment that the waters of the river recede, the rice and grain crops are sown in the marshes, and villages of slightly made reed cottages are reared in their neighborhood. These last, in consequence of being suffered to remain too long, are often surprised by the returning inundation, and it is no uncommon spectacle for their occupants to be seen following the floating villages in canoes, for the purpose of recovering their property. But of all inundations that of the Nile, if not the most extensive, is the most regular, and has become the most celebrated, from the knowledge of it going back to the earliest periods to which history recurs. The rise of the river commences about the time of the summer solstice, attains its maximum height at the autumnal equinox, remains stationary for some days, and then gradually diminishes till the time of the winter solstice. The ancients, unacquainted with the climate of the interior country from which it descends, and not caring in general to inquire for physical causes, possessing also a very limited knowledge of terrestrial phenomena, deemed the annual overflow of the Nile a unique event, and attributed it to the special interference of a supernatural power. Lucretius, however, who soared in many respects above the prejudices of his age concerning the natural world, assigned it to a proper cause; though he ascribes too much influence to the Etesian wind, and shows his imperfect acquaintance with the geography of the globe, by supposing the occurrence without a parallel.

> "The Nile now calls us, pride of Egypt's plains:
> Sole stream on earth its boundaries that o'erflows
> Punctual, and scatters plenty. When the year
> Now glows with perfect summer, leaps its tide
> Proud o'er the champaign; for the north wind, now
> Th' Etesian breeze, against its mouth direct
> Blows with perpetual winnow; every surge
> Hence loiters slow, the total current swells,
> And wave o'er wave its loftiest bank surmounts.
> For that the fixed monsoon that now prevails
> Flows from the cold stars of the northern pole
> None e'er can doubt; while rolls the Nile adverse
> Full from the south, from realms of torrid heat,
> Haunts of the Ethiop tribes; yet far beyond
> First bubbling, distant, o'er the burning line.
>
> Then ocean, haply, by th' undevious breeze

Blown up the channel, heaves with every wave
Heaps of high sand, and dams its wonted course;
Whence, narrower, too, its exit to the main,
And with less force the tardy stream descends.

Or, towards its fountain, ampler rains, perchance,
Fall, as th' Etesian fans, now wide unfurled,
Ply the big clouds perpetual from the north
Full o'er the red equator; where condensed,
Ponderous and low, against the hills they strike,
And shed their treasures o'er the rising flood.
Or, from the Ethiop mountains, the bright sun
Now full matured with deep-dissolving ray
May melt th' agglomerate snows, and down the plains
Drive them, augmenting hence th' incipient stream."

The annual overflow of the Nile is now well known to proceed from the heavy periodical rains within the tropics. They fall in copious torrents upon the great plateau of Abyssinia, which rises, like a fortress, 6000 feet above the burning plains with which it is surrounded on every side, attracting the clouds, cold fogs, and tremendous showers, enveloping An Rober, the capital, while, whenever the curtain of mist is withdrawn, the strange contrast is presented of the sulphureous plains, visible below, where the heat is 90°, and the drought excessive. A peculiar character has been given to this district by the violence of the periodical rains. Bruce speaks of the mountains of this table-land, not remarkable for their height, but for their number and uncommon forms. "Some of them are flat, thin, and square, in shape of a hearth-stone or slab, that scarce would seem to have base sufficient to resist the winds. Some are like pyramids, others like obelisks or prisms, and some, the most extraordinary of all, pyramids pitched upon their points, with their base uppermost." Mr. Salt confirms this delineation in the main. The peculiar shapes referred to have been formed by the action of the torrents discharged from the clouds, which have, for ages, been skeletonizing the country, dismantling the granite with its kindred masses of the softer deposits, gradually wearing away also these harder rocks, and carrying along the soil of Ethiopia, strewing it upon the valley of the Nile, to the shores of the Mediterranean. When Bruce was ascending Taranta, a sudden noise was heard on the heights louder than the loudest thunder, and, almost directly afterward, a river, the channel of which had been dry, came down in a stream several feet in depth, and as broad as the whole bed. Hence the steeple and obelisk form of the rocks, with their naked aspect – which has, not unaptly, been compared to bones stripped of their flesh.

In the tropical countries of South America, the seasonal rains are, perhaps, more intensely copious than in any other part of the torrid zone, and the floods of its rivers are of corresponding magnitude. At the mission of San Antonio de Javita, on the Orinoco, during the wet season, the sun and stars are seldom visible, and Humboldt was told by the padre, that it sometimes rained for four or five months without intermission. The traveler collected there, in five hours, 21 lines of water in height on the first of May, and 14 lines on the 3d, in three hours; whereas at Paris there fall only 28 or 30 lines in as many weeks. Humboldt traces the transition from the one great season of drought to that of rain, which divides the year, in an interesting manner, with the atmospheric phenomena which accompany the change. About the middle of February in the valleys of Araqua, he observed clouds forming in the evening, and in the beginning of March the accumulation of vesicular vapors became visible. "Nothing," he remarks, in beautifully graphic style, "can equal the purity of the atmosphere from December to February. The sky is then constantly without clouds, and should one appear, it is a phenomenon that occupies all the attention of the inhabitants. The breeze from the east and

north-east blows with violence. As it always carries with it air of the same temperature, the vapors cannot become visible by refrigeration. Toward the end of February and the beginning of March, the blue of the sky is less intense; the hygrometer gradually indicates greater humidity; the stars are sometimes veiled by a thin stratum of vapors; their light ceases to be tranquil and planetary; and they are seen to sparkle from time to time at the height of 20° above the horizon. At this period the breeze diminishes in strength, and becomes less regular, being more frequently interrupted by dead calms. Clouds accumulate toward the south-east, appearing like distant mountains with distinct outlines. From time to time they are seen to separate from the horizon, and traverse the celestial vault with a rapidity which has no correspondence with the feebleness of the wind that prevails in the lower strata of the air. At the end of March the southern region of the atmosphere is illuminated by small electric explosions, like phosphorescent gleams, confined to a single group of vapors. From this period the breeze shifts at intervals, and for several hours, to the west and south-west, affording a sure indication of the approach of the rainy season, which, on the Orinoco, commences about the end of April. The sky begins to be overcast, its azure color disappears, and a gray tint is uniformly diffused over it. At the same time the heat of the atmosphere gradually increases, and, instead of scattered clouds, the whole vault of the heavens is overspread with condensed vapors. The howling monkeys begin to utter their plaintive cries long before sunrise. The atmospheric electricity, which, during the period of the greatest drought, from December to March, had been almost constantly in the day-time from 1·7 to 2 lines to Volta's electrometer, becomes extremely variable after March. During whole days it appears null, and again for some hours the pith-balls of the electrometer diverge from three to four lines. The atmosphere, which in the torrid as in the temperate zone is generally in a state of positive electricity, passes alternately, in the course of eight or ten minutes, to a negative state. The rainy season is that of thunder-storms. The storm rises in the plains two hours after the sun passes through the meridian, and therefore shortly after the period of the maximum of the diurnal heat in the tropics. In the inland districts it is exceedingly rare to hear thunder at night or in the morning – nocturnal thunder-storms being peculiar to certain valleys of rivers which have a particular climate." The substance of the explanation of the preceding phenomena, by the philosophic writer of the statement, may be briefly given:

The season of rains and thunder in the northern equinoctial zone coincides with the passage of the sun through the zenith of the place, the cessation of the breezes or north-east winds, and the frequency of calms and furious currents of the atmosphere from the south-east and south-west, accompanied with a cloudy sky. While the breeze from the north-east blows, it prevents the atmosphere from being saturated with moisture. The hot and loaded air of the torrid zone rises, and flows off again toward the poles, while inferior currents from these last, bringing drier and colder strata, take the place of the ascending columns. In this manner, the humidity – being prevented from accumulating – passes off toward the temperate and colder regions, so that the sky is always clear. When the sun, entering the northern signs, rises toward the zenith, the breeze from the north-east softens, and at length ceases; this being the season at which the difference of temperature between the tropics and the contiguous zone is least. The column of air resting on the equinoctial zone becomes replete with vapors, because it is no longer renewed by the current from the pole: clouds form in this atmosphere, saturated and cooled by the effects of radiation and the dilatation of the ascending air, which increases its capacity for heat in proportion as it is rarefied. Electricity accumulates in the higher regions, in consequence of the formation of the vesicular vapors, the precipitation of which is constant during the day, but generally ceases at night. The showers are more violent and accompanied with electrical explosions, shortly after the maximum of the diurnal heat. These phenomena continue until the sun enters the southern signs, when the polar current is reëstablished, because the difference between the heat at the equinoctial and temperate regions is daily increasing. The air of the tropics being thus renewed, the rains cease, the vapors are dissolved, and the sky resumes its azure tint.

The Orinoco, when in flood, inundates a vast extent of country, six hundred miles in length, and from sixty to ninety in width. Its waters cover the savannas along its banks to the depth of twelve or fourteen feet, giving to them a lake-like appearance, in the midst of which farm-houses and villages are seen rising on islands but little elevated above the surface. The wild cattle perish in great numbers, and fall an easy prey to the carrion-vultures and alligators. In one part of the river Humboldt found marks of recent inundation at 45 feet above the ordinary level; but above the greatest height to which its waters are now elevated, he traced its ancient action at 106 or even 138 feet. “Is this river, then,” inquires he, “the Orinoco, which appears to us so imposing and majestic, merely the feeble remnant of those immense currents of fresh water which, swelled by Alpine snows or by more abundant rains, every where shaded by dense forests, and destitute of those beaches that favor evaporation, formerly traversed the regions to the east of the Andes, like arms of inland seas? What must then have been the state of those low countries of Guiana, which now experience the effects of annual inundations! What a prodigious number of crocodiles, lamartines, and boas must have inhabited these vast regions, alternately converted into pools of stagnant water and arid plains! The more peaceful world in which we live has succeeded to a tumultuous world. Bones of mastadons and real American elephants are found dispersed over the platforms of the Andes. The megatherium inhabited the plains of Uruguay. By digging the earth more deeply in high valleys, which at the present day are unable to nourish palms or tree-ferns, we discover strata of coal, containing gigantic remains of monocotyledonous plants. There was therefore a remote period when the tribes of vegetables were differently distributed, when the animals were larger, the rivers wider and deeper. There stop the monuments of nature which we can consult.”

The bifurcation of flowing waters is sufficiently illustrative of the physics of the earth to justify a few words: – Europe presents two instances of bifurcation – one in Italy, between the Arno and the Chiana; the other in Germany, between the Haase and the Else, in Westphalia. Asia also possesses, on the peninsula lying beyond India, two grand examples. What we know about them is principally founded upon the information gathered by Dr. Buchanan Hamilton, during his stay in Ava, the capital of the Birman empire. But it is to be observed, that the communications of these Indian rivers, at least as regards those in the country of the Jun-Shan, appear doubtful. British travelers have succeeded in penetrating, from Maulmain, at the mouth of the river Saluan, into the interior of the country of the Shan, which has been so long shut up; but Lieutenant M’Leod, who reached the river of Kambodja, says nothing to confirm the information Dr. Buchanan gives us. The most important of all known divisions in the form of a fork, however, is the bifurcation of the Orinoco, which communicates through the Cassiquiare with the Rio Negro, and through this river with the Amazon. It has already been remarked, that the observations of A. von Humboldt have put this bifurcation beyond a doubt; but the subject deserves a recurrence to it, as presenting to our attention a singular physical feature, and illustrating the energy of the great traveler of modern times.

He and Bonpland left Carracas in the year 1800, crossed the valleys of Aragua, and the Llanos of Calabozo – excellent pastures, which separate the cultivated part of Venezula from the region of the forests and missions – and embarked at San Fernando, on the Rio Apure, to follow its course downward to its discharge into the principal branch of Orinoco. They then ascended the Orinoco, passing its two great cataracts of Apures and Maypures, and reached the village of San Fernando de Atabapo, situated at the junction of the Guaviare and Atabapo, and near lat. 4° N. Here they left the river, and sailed up the Atabapo to the mouth of the Rio Temi, which latter they followed as far as its confluence with the Tuamini, and arrived at the village of San Antonio de Javita, formerly mentioned as remarkable for its amount of rain. From this point the Indians carried their boat across the isthmus which separates the Tuamini from the Rio Pimichin, the travelers following on foot, passing through dense forests, often in danger from the number of snakes that infested the marshes. Embarking on the Pimichin, they came in four hours and a half into the Rio Negro. “The morning,” says Humboldt, “was cool and beautiful. We had been confined thirty-six days in a narrow canoe, so

unsteady that it would have been upset by any one rising imprudently from his seat, without warning the rowers to preserve its balance by leaning to the opposite side. We had suffered severely from the stings of insects, but had withstood the insalubrity of the climate; we had passed without accident the numerous falls and bars that impede the navigation of the rivers, and often render it more dangerous than long voyages by sea. After all we had endured, I may be allowed to mention the satisfaction which we felt in having reached the tributaries of the Amazon." The Rio Negro, which flows into that river, was navigated downward as far as San Carlos, then supposed to lie under the equator, but actually about 2° N. From thence the travelers retraced the river, passed from it into the Cassiquiare, and again entered the main channel of the Orinoco, three leagues below the mission of Esmeralda; thus demonstrating a junction between the two great floods of the Amazon and Orinoco, which had been, in the year 1798, declared by Bauche to be a geographical monstrosity. The bifurcation of the Orinoco takes place in the following manner: – The river, issuing from among the mountains, reaches the opening of a valley or depression which terminates at the Rio Negro. Here it divides into two branches, the smaller, or the Cassiquiare, turning off to the south, while the main stream continues its original direction – west-north-west. A reference to Humboldt's map, of which we give a translated copy, will render further explanation unnecessary.

The preceding notices refer to what have been appropriately styled the "might rivers," and the "great rivers," none of which are to be found in Europe. Its noblest running waters belong to a third grade. "These," says Inglis, "I would designate the large rivers; for great and large are not entirely synonymous; and, to most minds, the term great river and large river, will present a distinct image. The lower we descend in the scale, the more numerous do we find the species. The continent of Europe abounds with examples of the third class – such as the Rhine, the Danube, the Rhone, the Elbe, the Tagus, the Ebro, and the Guadalquivir. The fourth class is still more numerous; and of this class, which I would call considerable rivers, we may find examples at home. Father Thames takes the lead; and the Severn, and perhaps the Trent, the Clyde, the Tweed, the Tyne, and the Tay, may be entitled to the same distinction. On the continent, it would be easy to name a hundred such; let me content myself with naming the Loire, the Meuse, the Soane, the Garonne, the Adige, and the Maine. Fifthly, come the small rivers. Multitudinous they are; but as examples, I may name the Wye, the Dart, the Derwent, the Dee, the Aire, the Spey, the Ex, and a thousand such; while on the continent, of the same class, may be mentioned the Gare, the Seine, the Reass, or the Sombre. The word river can no longer be employed, for now come the family of streams – nameless, except to those who live upon their banks: the rivulets follow; and, lastly, we close the enumeration with rills." The small rivers, with the streams subordinate to them, are especially rife in countries where there is the vicinage of the sea, and high elevations on the land. This renders them so abundant in such districts as the Greek peninsula. There, Alpine tracts of territory collect from the atmosphere the vapors of the contiguous sea, arrest the castellated glories of cloudland, and awaken in the valleys and plains the refreshing music "of the voice of many waters." The commerce of kingdoms distinguishes not the rivers of this classic soil, but they are familiar with the charms of nature, add effect to the sublime and wild in its scenery, and clothe with heightened grace the soft and pastoral. Following the course of the Angitas up to its source, we come to one of the most picturesque sites in Macedonia, supposed to be the nymphæum or grotto of Onocaris. Blocks of marble, rudely piled, as if tossed together by an earthquake, obstruct its entrance, which can only be passed in a crawling posture; but these difficulties being overcome, a cave like a temple appears, from the farther end of which runs the limpid stream, flowing silently over a sand bed, but rippling when it escapes from the grotto. In a recess, there are some remains of ancient masonry below an aperture, through which a mysterious light finds its way.

"Pure element of waters! wheresoe'er
Thou dost forsake thy subterranean haunts,

Green herbs, bright flowers, and berry-bearing plants,
Rise into life, and in thy train appear."

Upon the large circular valley-plain of Bœotia, the heights of Parnassus on the west, Helicon on the south, and Cithæron on the east, send down streams, covering the undulating surface of this Classic Land with a life-sustaining vegetation.

The same physical causes – high lands and the contiguous sea – operate, in Judea as in Greece, to render it a well-watered country – a "land of brooks," according to its Scripture designation. There are no considerable rivers, owing to the scanty extent of its hydrographical basins; but the melting of the snow on the high mountains of Syria, and the periodical sound of an "abundance of rain," contribute to furnish an ample irrigation. Its principal stream – the Jordan – though only one of the fifth class, and not remarkable for picturesque beauty except in the upper part of its course, has a sacred and historic interest, which will always strongly attract attention to it, while it exhibits a singular physical peculiarity. This is the depression of the valley, in which it flows, below the level of the Mediterranean, through the whole distance between the Sea of Tiberias and the Dead Sea; and the great inclination of its descent from the one to the other, amounting at a mean to very nearly eighteen feet per mile. Hence the force of its current, notwithstanding a comparatively small volume of water, and the few windings that mark its channel. Speaking of its appearance near the site of Jericho, Dr. Robinson states: "There was a still though very rapid current. We estimated the breadth of the stream to be from eighty to one hundred feet. The guides supposed it now to be ten or twelve feet deep. The current was so strong, that even Komeh, a stout swimmer of the Nile, was carried down several yards in crossing." Upon the authority of some phrases in the English version of the Scriptures, which, perhaps, do not express the sense of the original Hebrew, it has been generally supposed that the Jordan periodically inundated the country in its neighborhood, at, and for some time after, the Israelitish conquest of it. If this were so, either the river must have worn for itself a deeper bed, or the quantity of rain in Palestine must have largely diminished, for there is now no overflow of its banks. At present, the "swellings of Jordan" – one of the phrases alluded to – amount only to a slight annual rise. Copious rains descend upon the mountains round its sources, and the melting of the snows of Lebanon supply numerous temporary torrents; but these contributions are received into the capacious basins of the lakes Merom and Tiberias, and are there spread over an extensive surface, so as to prevent the level of the river from rising into inundation.

In exactly the same manner, the great Canadian lakes, prevent any rise to the St. Lawrence, by the immense floods that rush into them in the spring spreading over their vast beds, and producing only an almost inappreciable elevation of their level. Lebanon, the feeder of the Jordan from its internal reservoirs, along with "Abana and Pharpar, rivers of Damascus," and the Orontes, gives birth to many rapid and brawling streams, and a thousand cascades, when its snows melt, which strikingly display the erosive power of running water. Deep passages have been cut in the rocks, bestrided by natural arches, like the rock-bridge of Virginia. Of this description is the natural bridge over the Ain el Leban, rising nearly two hundred feet above the torrent which has gradually dug the excavation, as annually the spring has renewed its strength. The brook flows into the Beyrout river, and its channel would be quite dry in summer, were it not for the impediments its mountain course presents. It was the spring season, the time of the melting of the snow, when the monarch of Israel, during his temporary exile from the throne, retreated for a refuge toward the fastnesses of Lebanon. He saw the torrents falling from height to height into the valleys. He heard the voices of the waters as they leaped from rock to rock. His imagination converted this external scenery into a picture of the force of his adversities; and hence the allusion, in the plaintive elegiac, commemorative of his condition, to the "noise of cataracts," and to "deep calling unto deep."

In advancing toward their termination, and at their embouchure, the great rivers present several striking peculiarities. It has already been remarked, that a junction of two large streams often occurs

without any expansion of the surface of their waters being the consequence, but a greater velocity of current and depth of channel. In some cases, instead of a wider course being created by increased volume of water, there is actually a narrower bed. Thus the Mississippi is a mile and a half wide, and the Missouri half a mile wide, at their confluence, yet from that point to the mouth of the Ohio, the medium width of the united rivers is but three-quarters of a mile, and through the lower parts of its course the main stream has, if any thing, a less surface-breadth, though vast accessions are made to it by the Arkansas, Red River, and others of great depth and body of water. Most of the tributaries of the Mississippi also, are wider a thousand miles apart from it than at the point of junction, and the same feature is characteristic of other great streams, that as they increase their volume of water and approach their termination, they flow in narrower though deeper channels. The Nile is not so broad at Cairo as at Siout, nor so broad at Siout as at Thebes. At Assouan, high up the stream, it is 3900 feet wide; at Oudi, 36 miles above Cairo, it is 2900; and at Rosetta, near its mouth, but 1800. This is one of the many examples of benign adjustment with which the realms of nature teem; for hereby a rich legacy of fertile soil, usually found at the mouths of rivers, is saved from submergence, and becomes the inheritance of man. In their junction with the sea, rivers display the diversity of sometimes pouring forth their waters through a single mouth, and distributing them into a variety of channels; circumstances mainly dependent upon the country through which they flow being easily susceptible of excavation or not, and upon the power of the stream. The Ganges pours its flood through the many channels here represented.

The Volga is celebrated for its seventy mouths; and the Ganges, the Nile, Mississippi, and Orinoco pour out their current through several branches. The space inclosed within these various channels is called a delta, from its triangular form, and general resemblance to the shape of the Greek letter Δ. So powerfully do many of the great rivers rush into the ocean, that their waters are distinct from those of the briny deep, when out of sight of the land. A British fleet lying opposite to the mouth of the Rhone occasionally took up fresh water at a considerable distance from the shore; and Columbus found his vessel in the fresh water of the Orinoco before he discovered the continent of South America. The collision of a great river current and the opposing tide of the sea is sometimes so violent as to occasion an elevated ridge of waters, heaving and tossing in a tremendous manner, shattering to pieces the ill-fated vessel that comes into contact with it. The passage of the Garonne into the Bay of Biscay, and of the Ganges into the Bay of Bengal, exhibit this phenomenon.

In treating of the magnitude of rivers, some writers refer to the elevation of the range of mountains from which they descend; and it is obviously true, that the greater the height of the mountains, the more extensive are their snows and glaciers, and the larger the supply of water furnished by springs and torrents. But the magnitude of a stream is more especially regulated by the extent of country which forms the declivities of its basin, though there is no invariable proportion here, for a small basin in a humid region will yield a greater quantity of water than one much more considerable in a different situation. High mountains, a humid climate, and a wide superficial drainage, are the three physical circumstances which lead to the accumulation of vast bodies of water, the magnitude of which will be proportionate to the degree in which these causes are in combined operation. Upon the surface of the New World, we have these causes acting with greater intensity than upon that of the Old, which explains the superior character of the streams of the western continent. The following exhibits the extent of the hydrographical regions of the principal rivers of the globe, with the proportionate quantity of their waters:

			Proportional
			Quantity of
	Area of Basin		Water
	in English	Proportional	discharged
Rivers.	**Miles.**	**size of Basin.**	**Annually.**
Europe:			
Thames	5,500	1	1
Rhine	70,000	12½	13
Loire	48,000	8½	10
Po	27,000	5	6
Elbe	50,000	9	8
Vistula	76,000	13½	12
Danube	310,000	56	65
Dnieper	200,000	36	36
Don	205,000	37	38
Volga	520,000	94	80
Asia:			
Euphrates	230,000	42	60
Indus	400,000	72½	133
Ganges	420,000	76	148
Yang-tse-kiang	760,000	138	258
Amour	900,000	164	166
Lena	960,000	174	125
Obi	1,300,000	236	179
Africa:			
Nile	500,000	90	250
America:			
St. Lawrence	600,000	109	112
Mississippi	1,368,000	249	338
Rio de la Plata	1,240,000	225	490
Amazon, not	2,177,000	395	1280
including			
Araguay			

Malte Brun estimates that, representing all the waters discharged by the European rivers by unity, the Black Sea receives 0·273; the Caspian, 0·165; the Mediterranean, Sea of Marmora, and Archipelago, 0·144; the Atlantic Ocean, 0·131; the Baltic, 0·129; the North Sea, 0·110; the Arctic Frozen Ocean, 0·048. The annexed table has a character of universal interest, and naturally finds a place here.

RIVERS.	LOCALITY.	RISE.	DISCHARGE.	L'GTH
Amazon.	Brazil.	Andes.	Atlantic.	3200
Amour.	Mongolia.	Khan Ola Mountains.	Sea of Okotsk.	2240
Brahmapootra.	Thibet.	Himalaya Mountains.	Bay of Bengal.	1500
Bravo del Norte.	Mexico.	Sierra Verde.	Gulf of Mexico.	1250
Colorado.	North America.	Unknown.	Gulf of	700
			California.	
Columbia.	North America.	Rocky Mountains.	Pacific Ocean.	1090
Congo.	Africa.	Lake Aquilunda.	Atlantic Ocean.	1400
Danube.	Germany.	Black Forest.	Black Sea.	1630
Dnieper.	Russia.	Heights of Smolensk.	Black Sea.	1050
Dniester.	Russia.	Carpathian Mountains.	Black Sea.	480
Don.	Russia.	Lake Ivanhof.	Sea of Azof.	860
Douro.	Spain and Portugal.	Mountains of Sovia.	Atlantic Ocean.	455
Dwina.	Russia.	Heights of Vologda.	White Sea.	490
Ebro.	Spain.	Mountains of Asturias.	Mediterranean.	410
El Asi, the ancient	Syria.	East side of Anti Libanus.	Mediterranean	225
Orontes.			Sea.	
Elbe.	Germany.	Elb-brunnen, in Bohemia.	German Ocean.	770
Euphrates.	Asiatic Turkey.	Mountains of Armenia.	Persian Gulf.	1360
Forth.	Scotland.	East side of Ben Lomond.	German Ocean.	110
Gambia.	Senegambia.	Plateau of Fouta Toro.	Atlantic Ocean.	700
Ganges.	Hindustan.	Bed of snow above Gangoutri,	Bay of Bengal.	1350
		in the Himalaya.		
Garonne.	France.	Valley of Aran, in Spain.	Bay of Biscay.	400
Glomman.	Norway.	Mountains south-east of	Baltic Sea.	400
		Trondheim.		
Godavery.	Hindustan.	Western Ghauts.	Bay of Bengal.	850
Guadalquivir.	Spain.	Mountains on the frontiers of	Gulf of Cadiz.	280
		Murcia and Granada.		
Guadiana.	Spain.	Pools of Ruideva in La Mancha.	Gulf of Cadiz.	460
Hoang-Ho.	China.	Koulkoun Mountains.	Yellow Sea.	3000
Hudson.	United States.	Marsh near Lake Champlain.	Bay of	325
			New York.	
Humber (Trent	England.	Moorlands of Staffordshire.	German Ocean.	230
Branch.)				
Indus.	Hindustan.	Little Thibet, north of the	Arabian Sea.	1700
		Himalaya Mountains.		
Irawady.	Birman Empire.	Mountains east of Assam.	Bay of Bengal.	1200
Jaxartes, or Sihoun.	Turkestan.	Country of the Highland Kirghiz.	Sea of Aral.	1200
James River.	United States.	Alleghany Mountains.	Chesapeake	500
			Bay.	
Jordan.	Palestine.	Mount Hermon.	Dead Sea.	100
Jumnah.	Hindustan.	Himalaya Mountains.	Ganges.	1600
Kizil-Irmak, the	Asia Minor.	Frontiers of Sisas.	Black Sea.	570
ancient Halys.				
Krishna, or Kistna.	Hindustan.	Western Ghauts.	Bay of Bengal.	650
Kodos, or Sarahat, the	Asia Minor.	Murad-tagh.	Gulf of Smyrna.	190
ancient Hermus.				
Kouban.	Russian Asia.	Valley near Mount Elburz.	Black Sea.	480
Lawrence, St.	Canada.	River St. Louis, east of	Atlantic Ocean.	1960
		Lake Superior.		
Lena.	Siberia.	Heights of Irkutsk.	Arctic Ocean.	2500
Loire.	France.	Mount Gerbier, in the Cevennes.	Bay of Biscay.	620
Mackenzie.	North America.	River Athabasca, in the	Arctic Ocean.	1600
		Rocky Mountains.		
Mæander.	Asia Minor.	West side of Central Plateau.	Archipelago.	180
Magdalena.	South America.	Andes.	Caribbean Sea.	840
May-kuang.	Birman Empire.	Thibet.	Chinese Sea.	1700
Meinam.	Birman Empire.	Yunnaw.	Gulf of Siam.	850
Meuse, or Maas.	Holland.	Limburg.	German Ocean.	520
Mississippi.	North America.	Lake Itaska.	Gulf of Mexico.	3200
Missouri.	North America.	Rocky Mountains.	Gulf of Mexico.	4500
Murray.	Australasia.	Australian Alps.	Encounter Bay.	3000
Niger.	Soudan.	Base of Mount Loma.	Gulf of Guinea.	2300

The first place among the rivers of the globe is due to the Amazon, if not for the length of its course, yet for the volume of its waters. It traverses the equatorial regions of South America, chiefly in a direction from west to east, and has its embouchure nearly under the equator. Its mouth was discovered in the year 1500 by Pinzon, one of the captains who sailed with Columbus on his first voyage; and thirty nine years afterward, the stream was traced downward from Peru by Francisco Orellana, whose name was given to the river by his countrymen, to preserve the memory of his bold enterprise. But the Spaniard's report of having met with armed women on its banks, deprived him of the honor, for it originated the common title of the river of the Amazon. Its principal affluents rival the largest rivers of the Eastern continent, as appears from the following statement of their supposed lengths —

	Miles.
Ucayali	1350
Yutai	750
Jaura	750
Madeira	1800
Topayos	1000
Xingu	1080
Napo	800
Rio Negro	1400

The width of the Amazon averages from one to two miles in the upper parts of its course, but toward its termination its opposite banks are seen with difficulty, and it widens to between twenty and thirty miles, which is about its breadth upon joining the Atlantic. For two thousand miles in a direct line from the ocean, the river is navigable by vessels of any burden; for, at the confluence of the Tunguragua and Ucayali, where the Amazon – properly so called – commences, no bottom was found in March, 1836, with a line of 35 fathoms, or 210 feet. The tide rushes up its channel with immense violence at the period of the full moon, in two, three and sometimes four successive waves, each presenting a perpendicular front of from ten to fifteen feet. When the tide ebbs in the rainy season, the liberated waters of the river rush out of their channel with tremendous force, and create a current in the ocean, which is perceptible five hundred miles from its mouth. It is difficult to sound the river, owing to the rapidity of its current, which runs commonly at the rate of from three to four miles an hour – a momentum not arising from the inclination of its bed, the fall of which is very gradual, but from the immense quantity of water which descends in it. The climate of its basin is, perhaps, the most humid to which any country is subject. The quantity of rain which annually descends upon this region, has not been ascertained with precision; but taking that at the town of Maranhão as a sample, which is not less than two hundred inches, the amount of rain poured upon the district of the Amazon every year must be prodigious. The heat also is excessive through the whole year, the thermometer in the shade frequently rising to 106° when the sun is near the line, a degree of heat not much inferior to that experienced in the Sahara; and as moisture and heat are the most efficient agents in promoting vegetation, hence the luxuriance and energy of vegetable life in the fertile soil on the banks of the river, where the noblest woodland scenery in the world is to be found. Notwithstanding the rapid current of the Amazon, its navigation is easy to vessels both descending and ascending its course, the ascent being facilitated by the far-penetrating tide of the Atlantic, assisted by the wind, which is always blowing from the east, a direction contrary to that of the stream. But the effect of the presence and absence of civilization is nowhere more strikingly exhibited than on the waters of the South American river, and those of its rivals, the Mississippi, and the Yang-tse-Kiang of the Chinese empire. The vessels that annually appear upon the surface of the Amazon are, probably, not more than those which monthly navigate the Mississippi, or daily pass along the course of the Yang-tse-Kiang.

At the head of rivers, classed according to their length, the Mississippi is to be placed, taking the Missouri branch, which ought to be the name of the united stream, not only on account of its longer course, but because it brings down a greater body of water, and imparts its turbid character to its rival. Geographers have, however, given the former name to the joint rivers, the “Father of Waters,” according to its Indian signification, which may be aptly applied to the great central valley of North America, furnishing the following streams, which unite in the channel of the Lower Mississippi, and pour down through it into the Gulf of Mexico —

	Miles.	
St. Peter’s	500	
Penaca, or Turkey	200	
Iowa	350	
Chacaguar	200	
Des-moines	600	
St. Croix	300	
Chippewa	300	
Wisconsin	600	
Rock River	450	
Illinois	500	
Salt	250	
Missouri	3300	
Yellow-stone	1000	
Little Missouri	300	
Shienne	300	
Quicourt	500	
Platte	1200	
Kansas	800	
Osage	500	
Gasconade	300	
Jacques	600	
Sioux	500	
Grand	500	
Chariton	200	
Kaskaskia	300	
Maramec	200	
St. Francis	450	
White	600	
Arkansas	2500	
Canadian	1000	
Neosho	800	
Red River	2000	
Washita	800	
Ohio	1250	
Allegharny	350	
Monongahela	300	
Kanawha	450	
Kentucky	360	
Green	300	
Cumberland	600	
Tennessee	1500	
Muskingum	200	
Scioto	200	
Wabash	550	
White River	200	
Hatchy	200	
Yazoo	300	
Big Black	200	

The most beautiful tributary of the Mississippi is the Ohio, the *Belle rivière* of the early French settlers, the only large river it receives from the east. No stream rolls for the same distance so uniformly and peacefully; its banks are adorned with the largest sycamores, its waters clear, and studded with islands covered with the finest trees. All the other great tributaries flow from the west: its confluence with the Missouri, which enters it like a conqueror, and carries its white waves to the opposite shore, presenting one of the most extraordinary views in the world. The country around these vast watercourses is of the most varied description, alternately exhibiting wild rice-lakes and swamps, lime-stone bluffs and craggy hills, deep pine forests and beautiful prairies, the prairies showing an almost perfect level, in summer covered with a luxuriant growth of grass and flowers, without a tree or a bush, the only tenants of which are elks and buffaloes, bears and deer, and the savages that pursue them. The bluffs of the Mississippi are for the most part perpendicular masses of limestone, often shooting up into towers and pinnacles, presenting at a distance the aspect of the battlements and turrets of an ancient city. In the season of inundation, below the mouth of the Ohio, the river presents a very striking spectacle. It sweeps along in curves or sections of circles, from six to twelve miles in extent, measured from point to point, and not far from the medial width of a mile. On a calm spring morning, and under a bright sun, this sheet of water shines like a mass of burnished silver, its edges being distinctly marked by a magnificent outline of cotton-wood trees, at this time of the year of the brightest verdure, among which those brilliant birds of the country, the black and red bird, and the blue jay, flit to and fro, or wheel their flight over them, forming a scene which has all of grandeur or beauty that nature can furnish, to soothe or enrapture the beholder. The curvilinear course of the Mississippi is one of its most striking peculiarities. It meanders in uniform bends, which, in many instances, are described with a precision equal to that obtained by the point of a compass. The river sweeps round the half of a circle, and is then precipitated in a diagonal direction across its own channel, to another curve of the same regularity upon the opposite shore. Instead of calculating distances by miles or leagues, the boatmen and Indians estimate their progress by the number of bends which they have passed. This conformation, which distinguishes most of the streams of the Mississippi valley, must have transpired under the operation of some law; but hitherto no solution of the problem has been given which is quite satisfactory. Geological appearances indicate that this stream, like the Orinoco, had in former ages a much broader volume, though a shorter course; that, in fact, it once found its estuary not far below the present mouth of the Ohio; the alluvial country now stretching from thence to the south, near a thousand miles, being then an arm of the sea. “No thinking mind,” says Flint, “can contemplate this mighty and resistless wave, sweeping its proud course from point to point, curving round its bends through the dark forests, without a feeling of sublimity. The hundred shores, laved by its waters; the long course of its tributaries, some of which are already the abodes of cultivation, and others pursuing an immense course without a solitary dwelling of civilized man on their banks; the numerous tribes of savages that now roam on its borders; the affecting and imperishable traces of generations that are gone, leaving no other memorial of their existence, or materials for their history than their tombs, that rise at frequent intervals along its banks; the dim, but glorious anticipations of the future – these are subjects of contemplation that cannot but associate themselves with a view of this river.”

Though far inferior to these streams of the western world in point of length and volume, the Nile of the ancient continent may be placed at the head of remarkable rivers. One of its chief peculiarities is the solitary grandeur of its flow; for not a single affluent enters it from the junction of the Tacazze to the sea, a distance of 1500 miles – a circumstance without a parallel in the physical condition of rivers. Another of its striking features is its long course through a desert, dry, barren, and hideous, depositing by its annual inundation the richest soil on those portions of it which lie contiguous to its banks; and hence has originated the apt comparison of its career to the path of a good man amidst an evil generation. Egypt would be completely sterile were it not for the periodical overflow of its

only stream, which both covers a large part of its surface with a layer of alluvion, and imparts to it the requisite moisture.

"Rich king of floods! o'erflows the swelling Nile —
– glad to quit
The joyless desert, down the Nubian rocks
From thund'ring steep to steep he pours his urn,
And Egypt joys beneath the spreading wave."

It requires the river to attain a medium rise in order to benefit the country: too little, involving scarcity and famine; too much, compromising the safety of the people and their dwellings. Wilkinson calls a rise of 19 cubits, tolerable; 20, good; 21, sufficient; while a rise of 22 cubits is abundant enough to fill every canal, and a rise of 24 cubits would overwhelm and ruin the villages. A cubit is rather more than 21 inches; so that, in order fully to meet the wants of the country, a perpendicular rise of 38 feet is necessary. The Nile is also distinguished among rivers for the pleasant taste and salubrity of its waters when not in flood; properties highly extolled by the ancients, and acknowledged to belong to it by modern travelers. It is a common saying with the Egyptians, that if Mahomet had tasted of its stream, he would have sought a terrestrial immortality in order to enjoy it forever. The physical circumstances of the river easily account for the possession of this attribute. The air above is pure and serene. But little rain falls upon the country through which the greater part of its course is prosecuted, and no snow or hail. Hence there is little drainage into it from the surrounding land, and its waters are kept free from any noxious taint derived from earths and minerals, except from those in its immediate channel. The same property of being remarkably pure and salutary is ascribed by Herodotus to one of the Susianic rivers, of which alone, according to tradition, none but the kings of Persia drank.

"There Susa, by Choaspes' amber stream,
The drink of none but kings."

The Susianic streams, along with the Nile, may not improperly be styled the oldest rivers of the globe, because of their place in its most ancient traditions and histories; and however subordinate to the gigantic currents of the western hemisphere, those of the eastern, in general, present higher points of interest, in their long-known identification with the destinies of mankind. If not the actual birthplace of man, the great plains on the banks of the Tigris and the Euphrates were the abode of the founders of the diluvian race. There, the two greatest cities of the ancient world – Nineveh and Babylon – rose into magnificence. There, a supernatural finger traced the doom of the latter upon the palace wall of its trembling monarch, while an exiled Jew, in the majesty of inspiration, gave him the interpretation of the mystic writing. There, too, the splendid empire of the Medes and Persians fell a prey to the Macedonian on the field of Arbela, while, in later ages, the same neighborhood witnessed the catastrophe of Cunaxa, and the bold bearing of the indomitable ten thousand – the defeat and death of Crassus – the retreat of Mark Antony – the fall of the apostate Julian – and the short-lived glory of Bagdad. How different the associations connected with the Arkansas and the Osage to those of the Euphrates and Tigris!

WERE I BUT WITH THEE

—

BY CAROLINE F. ORNE

—

Hours of lonely musing
  Sometimes thou must have,
When, of toil a-weary,
  Rest thy soul doth crave.
Then, if I were near thee,
  Care would be forgot,
And obtrusive sorrows
  Be as they were not.
Thoughts and themes of beauty,
  Rising wild and free,
Would our converse gladden
  Were I but with thee!
Thou wouldst bear my spirit
  To thy shadow-land,
Where bright shapes of beauty
  Spring, a glorious band.
Their harmonious motions,
  As the wild waves free,
Would enchain our spirits
  Were I but with thee!
I would bear thee onward
  To my realms of life,
Where with joy transcendent
  All the scenes are rife,
In that glorious dream-land,
  On that magic sea,
It were nearer heaven
  Were I but with thee!

SONNET. – IRON

—

BY WM. ALEXANDER

—

Thy worth, O Iron! can be never told!
  Thou art the richest treasure of the mine!
  By thee great nations polished are and shine,
And using thee contemn, may glittering gold —
Hail! ever useful one! Art were now dead
  If wanting thee. Thou in our life-blood flowest;
  Where run streams, fountains, there thou likewise goest;
War claims thee, for thy presence makes him red;
The mariner his needle forms of thee,
  To guide him pilot-like across the main;
  From thee old oaks solidity, too, gain;
In cinders, clay thou art found continually —
Earth's mineral strata yield to thee the palm;
Thou canst make war – and mak'st the nations calm.

NINEVEH, AND ASSYRIAN ART

[WITH ILLUSTRATIONS.]

Among the recent developments of the remains of ancient art, by far the most important and interesting are those of Mr. Layard at the site of Nineveh, a full account of which is given in the volumes recently published by George P. Putnam, of New York, entitled "Nineveh and its Remains; with an account of a visit to the Chaldean Christians of Kurdiston, and the Yezidis, or Devil-Worshipers; and an inquiry into the Manners and Arts of the Ancient Assyrians."

Mr. Layard's work contains an account of the labors carried on by him at Nimroud, from November 1845 until April 1847; and also of the less extensive excavations which he caused to be made at Kalah Sherghat and Kouyunjik. The narrative has all the liveliness and glow of a romance; the incidents are highly characteristic of oriental life; and many of them are of tragic and thrilling interest. His account of the difficulties which he had to overcome with the Arabs, Turks and Chaldeans, in securing their aid toward the accomplishment of his grand design, is very curious, and evinces a wonderful amount of coolness, ability and tact. Not less remarkable are the energy and perseverence which he exerted in conducting his noble enterprise to a successful termination.

Toward the close of his book, Mr. Layard gives a summary of the result of his investigations and of their bearing on the history of the Assyrians. They add an immense amount of information, to that which was already in possession of the learned world, respecting the progress of art and civilization among this ancient people and dissipate many errors. The discovery of the *arch*, of glass, and of the pulley, among the mines, evince the high antiquity of these inventions, which have been supposed to be of comparatively modern origin; and the very remarkable fact that the most ancient among the Assyrian works of art are by far the best executed, lead to the conviction that there is an unwritten ancient history of far greater extent and interest than that which has been preserved. All that portion of history which relates to the origin and rise of Assyrian art of course remains unknown. This is probably the case, too, with reference to Babylon and the other ancient empires of Asia.

We proceed to give some extracts from Mr. Layard's work, which, by the courtesy of the publisher, we are permitted to illustrate with engravings. We commence where he records some of his earliest operations at the great mound of Nimroud:

"No sculptures had hitherto been discovered in a perfect state of preservation, and only one or two could bear removal. I determined, therefore, to abandon this corner, and to resume excavations near the chamber first opened, where the slabs had in no way been injured. The workmen were directed to dig behind the small lions, which appeared to form an entrance, and to be connected with other walls. After removing much earth, a few unsculptured slabs were discovered, fallen from their places, and broken in many pieces. The sides of the room of which they had originally formed a part could not be traced.

"As these ruins occurred on the edge of the mound, it was probable that they had been more exposed than the rest, and consequently had sustained more injury than other parts of the building. As there was a ravine running far into the mound, apparently formed by the winter rains, I determined to open a trench in the centre of it. In two days the workmen reached the top of a slab, which appeared to be both well preserved, and to be still standing in its original position. On the south side I discovered, to my great satisfaction, two human figures, considerably above the natural size, sculptured in low relief, and still exhibiting all the freshness of a recent work. This was No. 30 of chamber B in the third plan. In a few hours the earth and rubbish had been completely removed from the face of the slab, no part of which had been injured. The ornaments delicately graven on the robes, the tassels

and fringes, the bracelets and armlets, the elaborate curls of the hair and beard, were all entire. The figures were back to back, and furnished with wings. They appeared to represent divinities, presiding over the seasons, or over particular religious ceremonies. The one, whose face was turned to the East, carried a fallow deer on his right arm, and in his left hand a branch bearing five flowers. Around his temples was a fillet, adorned in front with a rosette. The other held a square vessel, or basket, in the left hand, and an object resembling a fir cone in the right. On his head he wore a rounded cap, at the base of which was a horn. The garments of both, consisting of a stole falling from the shoulders to the ankles, and a short tunic underneath, descending to the knee, were richly and tastefully decorated with embroideries and fringes, whilst the hair and beard were arranged with study and art. Although the relief was lower, yet the outline was perhaps more careful, and true, than that of the Assyrian sculptures of Khorsabad. The limbs were delineated with peculiar accuracy, and the muscles and bones faithfully, though somewhat too strongly, marked. An inscription ran across the sculpture.

"To the west of this slab, and fitting to it, was a corner-stone ornamented with flowers and scrollwork, tastefully arranged, and resembling in detail those graven on the injured tablet, near entrance *d* of the S. W. building. I recognized at once from whence many of the sculptures, employed in the construction of that edifice, had been brought; and it was evident that I had at length discovered the earliest palace of Nimroud.

"The corner-stone led me to a figure of singular form. A human body, clothed in robes similar to those of the winged men on the previous slab, was surmounted by the head of an eagle or of a vulture. The curved beak, of considerable length, was half open, and displayed a narrow, pointed tongue, which was still covered with red paint. On the shoulders fell the usual curled and bushy hair of the Assyrian mages, and a comb of feathers rose on the top of the head. Two wings sprang from the back, and in either hand was the square vessel and fir cone.

"On all these figures paint could be faintly distinguished, particularly on the hair, beard, eyes, and sandals. The slabs on which they were sculptured had sustained no injury, and could be without difficulty packed and moved to any distance. There could no longer be any doubt that they formed part of a chamber, and that, to explore it completely, I had only to continue along the wall, now partly uncovered.

"On the morning following these discoveries, I rode to the encampment of Sheikh Abd-ur-rahman, and was returning to the mound, when I saw two Arabs of his tribe urging their mares to the top of their speed. On approaching me they stopped. 'Hasten, O Bey,' exclaimed one of them – 'hasten to the diggers, for they have found Nimrod himself. Wallah, it is wonderful, but it is true! we have seen him with our eyes. There is no God but God;' and both joining in this pious exclamation, they galloped off, without further words, in the direction of their tents.

"On reaching the ruins I descended into the new trench, and found the workmen, who had already seen me, as I approached, standing near a heap of baskets and cloaks. Whilst Awad advanced, and asked for a present to celebrate the occasion, the Arabs withdrew the screen they had hastily constructed, and disclosed an enormous human head sculptured in full out of the alabaster of the country. They had uncovered the upper part of the figure, the remainder of which was still buried in the earth. I saw at once that the head must belong to a winged lion or bull, similar to those of Khorsabad and Persepolis. It was in admirable preservation. The expression was calm, yet majestic, and the outline of the features showed a freedom and knowledge of art, scarcely to be looked for in the works of so remote a period. The cap had three horns, and, unlike that of the human-headed bulls hitherto found in Assyria, was rounded and without ornament at the top.

"I was not surprised that the Arabs had been amazed and terrified at this apparition. It required no stretch of imagination to conjure up the most strange fancies. This gigantic head, blanched with age, thus rising from the bowels of the earth, might well have belonged to one of those fearful beings which are pictured in the traditions of the country, as appearing to mortals, slowly ascending from the regions below. One of the workmen, on catching the first glimpse of the monster, had thrown

down his basket and ran off toward Mosul as fast as his legs could carry him. I learnt this with regret, as I anticipated the consequences.

"Whilst I was superintending the removal of the earth, which still clung to the sculpture, and giving directions for the continuation of the work, a noise of horsemen was heard, and presently Abd-ur-rahman, followed by half his tribe, appeared on the edge of the trench. As soon as the two Arabs had reached the tents, and published the wonders they had seen, every one mounted his mare and rode to the mound, to satisfy himself of the truth of these inconceivable reports. When they beheld the head they all cried out together, 'There is no God but God, and Mohammed is his Prophet!' It was some time before the sheikh could be prevailed upon to descend into the pit, and convince himself that the image he saw was of stone. 'This is not the work of men's hands,' exclaimed he, 'but of those infidel giants of whom the Prophet, peace be with him! has said, that they were higher than the tallest date tree; this is one of the idols which Noah, peace be with him! cursed before the flood.' In this opinion, the result of a careful examination, all the bystanders concurred.

"I now ordered a trench to be dug due south from the head, in the expectation of finding a corresponding figure, and before night-fall reached the object of my search about twelve feet distant. Engaging two or three men to sleep near the sculptures, I returned to the village, and celebrated the day's discovery by a slaughter of sheep, of which all the Arabs near partook. As some wandering musicians chanced to be at Selamiyah, I sent for them, and dances were kept up during the greater part of the night. On the following morning Arabs from the other side of the Tigris, and the inhabitants of the surrounding villages congregated on the mound. Even the women could not repress their curiosity, and came in crowds, with their children, from afar. My cawass was stationed during the day in the trench, into which I would not allow the multitude to descend.

"As I had expected, the report of the discovery of the gigantic head, carried by the terrified Arab to Mosul, had thrown the town into commotion. He had scarcely checked his speed before reaching the bridge. Entering breathless into the bazars, he announced to every one he met that Nimrod had appeared. The news soon got to the ears of the cadi, who, anxious for a fresh opportunity to annoy me, called the mufti and the elema together, to consult upon this unexpected occurrence. Their deliberations ended in a procession to the governor, and a formal protest, on the part of the Musulmans of the town, against proceedings so directly contrary to the laws of the Koran. The cadi had no distinct idea whether the bones of the mighty hunter had been uncovered, or only his image; nor did Ismail Pasha very clearly remember whether Nimrod was a true-believing prophet or an infidel. I consequently received a somewhat unintelligible message from his excellency, to the effect that the remains should be treated with respect, and be by no means further disturbed, and that he wished the excavations to be stopped at once, and desired to confer with me on the subject.

"I called upon him accordingly, and had some difficulty in making him understand the nature of my discovery. As he requested me to discontinue my operations until the sensation in the town had somewhat subsided, I returned to Nimroud and dismissed the workmen, retaining only two men to dig leisurely along the walls without giving cause for further interference. I ascertained by the end of March the existence of a second pair of winged human-headed lions,[5] differing from those previously discovered in form, the human shape being continued to the waist and furnished with arms. In one hand each figure carried a goat or stag, and in the other, which hung down by the side, a branch with three flowers. They formed a northern entrance into the chamber of which the lions previously described were the southern portal. I completely uncovered the latter, and found them to be entire. They were about twelve feet in height, and the same number in length. The body and limbs were admirably portrayed; the muscles and bones, although strongly developed to display the strength of the animal, showed at the same time a correct knowledge of its anatomy and form. Expanded wings sprung from the shoulder and spread over the back; a knotted girdle, ending in tassels, encircled the

[5] Entrance of chamber B, plan 3.

loins. These sculptures, forming an entrance, were partly in full and partly in relief. The head and fore-part, facing the chamber, were in full; but only one side of the rest of the slab was sculptured, the back being placed against the wall of sun-dried bricks. That the spectator might have both a perfect front and side view of the figures, they were furnished with five legs; two were carved on the end of the slab to face the chamber, and three on the side. The relief of the body and three limbs was high and bold, and the slab was covered, in all parts not occupied by the image, with inscriptions in the cuneiform character. These magnificent specimens of Assyrian art were in perfect preservation; the most minute lines in the details of the wings and in the ornaments had been retained with their original freshness. Not a character was wanting in the inscriptions.

"I used to contemplate for hours these mysterious emblems, and muse over their intent and history. What more noble forms could have ushered the people into the temple of their gods! What more sublime images could have been borrowed from nature, by men who sought, unaided by the light of revealed religion, to embody their conception of the wisdom, power, and ubiquity of a Supreme Being? They could find no better type of intellect and knowledge than the head of the man; of strength, than the body of the lion; of rapidity of motion, than the wings of the bird. These winged human-headed lions were not idle creations, the offspring of mere fancy; their meaning was written upon them. They had awed and instructed races which flourished 3000 years ago. Through the portals which they guarded, kings, priests, and warriors had borne sacrifices to their altars, long before the wisdom of the East had penetrated to Greece, and had furnished its mythology with symbols long recognized by the Assyrian votaries. They may have been buried, and their existence may have been unknown, before the foundation of the eternal city. For twenty-five centuries they had been hidden from the eye of man, and they now stood forth once more in their ancient majesty. But how changed was the scene around them! The luxury and civilization of a mighty nation had given place to the wretchedness and ignorance of a few half-barbarous tribes. The wealth of temples, and the riches of great cities, had been succeeded by ruins and shapeless heaps of earth. Above the spacious hall in which they stood, the plough had passed and the corn now waved. Egypt has monuments no less ancient and no less wonderful; but they have stood forth for ages to testify her early power and renown; whilst those before me had but now appeared to bear witness in the words of the prophet, that once 'the Assyrian was a cedar in Lebanon, with fair branches and with a shadowing shroud of a high stature; and his top was among the thick boughs.. his height was exalted above all the trees of the field, and his boughs were multiplied, and his branches became long, because of the multitude of waters when he shot forth. All the fowls of heaven made their nests in his boughs, and under his branches did all the beasts of the field bring forth their young, and under his shadow dwelt all great nations;' for now is 'Nineveh a desolation and dry like a wilderness, and flocks lie down in the midst of her; all the beasts of the nations, both the cormorant and bittern, lodge in the upper lintels of it; their voice sings in the windows; and desolation is in the thresholds.'[6]

"Behind the lions was another chamber.[7] I uncovered about fifty feet of its northern wall. On each slab was carved the winged figure with the horned cap, fir cone, and square vessel or basket. They were in pairs facing one another, and divided by an emblematic tree, similar to that on the corner-stone in chamber B. All these bas-reliefs were inferior in execution, and finish, to those previously discovered."

The following extract shows the great variety of objects which present themselves among the buried ruins of Nimroud, and the large scale on which the Assyrian works of art were projected and executed.

"The change to summer had been as rapid as that which ushered in the spring. The verdure of the plain had perished almost in a day. Hot winds, coming from the desert, had burnt up and carried

[6] Ezekiel, xxxi. 3, *etc.*; Zephaniah, ii. 13 and 14.

[7] Chamber C.

away the shrubs; flights of locusts, darkening the air, had destroyed a few patches of cultivation, and had completed the havoc commenced by the heat of the sun. The Abou-Salman Arabs, having struck their black tents, were now living in ozailis, or sheds, constructed of reeds and grass along the banks of the river. The Shemutti and Jehesh had returned to their villages, and the plain presented the same naked and desolate aspect that it wore in the month of November. The heat, however, was now almost intolerable. Violent whirlwinds occasionally swept over the face of the country. They could be seen as they advanced from the desert, carrying along with them clouds of sand and dust. Almost utter darkness prevailed during their passage, which lasted generally about an hour, and nothing could resist their fury. On returning home one afternoon after a tempest of this kind, I found no traces of my dwellings; they had been completely carried away. Ponderous wooden frameworks had been borne over the bank, and hurled some hundred yards distant; the tents had disappeared, and my furniture was scattered over the plain. When on the mound, my only secure place of refuge was beneath the fallen lion, where I could defy the fury of the whirlwind; the Arabs ceased from their work and crouched in the trenches, almost suffocated and blinded by the dense cloud of fine dust and sand which nothing could exclude.[8]

"Although the number of my workmen was small, the excavations were carried on as actively as possible. The two human-headed lions, forming the entrance *d*,[9] led into another chamber, or to sculptured walls, which, as it will hereafter be explained, may have formed an outward facing to the building. The slabs to the right and left, on issuing from this portal, had fallen from their original position, and all of them, except one, were broken. I had some difficulty in raising the pieces from the ground. As the face of the slabs was downward, the sculpture had been well preserved.

"On the slabs Nos. 2 and 3 was represented the king holding a bow in one hand and two arrows in the other. He was followed by his attendant eunuch, who carried a mace, a second bow and a quiver for his use. Facing him was his vizir, his hands crossed before him, also followed by an eunuch. These figures were about eight feet high; the relief very low, and the ornaments rich and elaborately carved. The bracelets, armlets, and weapons, were all adorned with the heads of bulls and rams; color still remained on the hair, beard, and sandals.

"No. 1, forming a corner wall, was a slab of enormous dimensions; it had been broken in two: the upper part was on the floor, the lower was still standing in its place. It was only after many ineffectual attempts that I succeeded in raising the fallen part sufficiently to ascertain the nature of the sculpture. It was a winged figure, with a three-horned cap, carrying the fir cone and square utensil; in other respects, similar to those already described, except that it had two wings rising from both sides of the back and inclosing the person. Its dimensions were gigantic, the height being about sixteen feet and a half, but the relief was low.

"The first slab on the other side of the entrance contained a vizir and his attendant, similar to No. 3. The succeeding slabs were occupied by figures, differing altogether in costume from those previously discovered, and apparently representing people of another race; some carrying presents or offerings, consisting of armlets, bracelets, and ear-rings, on trays; others elevating their clinched hands, either in token of submission, or in the attitude still peculiar to Easterns when they dance. One figure was accompanied by two monkeys, held by ropes; the one raising itself on its hind legs in front, the other sitting on the shoulders of the man, and supporting itself by placing its fore-paws on his head.[10] The dresses of all these figures are singular. They have high boots turned up at the toes,

[8] Storms of this nature are frequent during the early part of summer throughout Mesopotamia, Babylonia, and Susiana. It is difficult to convey an idea of their violence. They appear suddenly and without any previous sign, and seldom last above an hour. It was during one of them that the Tigris steamer, under the command of Colonel Chesney, was wrecked in the Euphrates; and so darkened was the atmosphere, that, although the vessel was within a short distance of the bank of the river, several persons who were in her are supposed to have lost their lives from not knowing in what direction to swim.

[9] Chamber B, plan 3.

[10] This bas-relief will be placed in the British Museum.

somewhat resembling those still in use in Turkey and Persia. Their caps, although conical, appear to have been made up of bands, or folds of felt or linen. Their tunics vary in shape, and in the fringes, from those of the high-capped warriors and attendants represented in other bas-reliefs. The figure with the monkeys wears a tunic descending to the calf of the leg. His hair is simply fastened by a fillet. There were traces of black color all over the face, and it is not improbable that it was painted to represent a negro: it is, however, possible that the paint of the hair has been washed down by water over other parts of the sculpture. These peculiarities of dress suggest that the persons represented were captives from some distant country, bringing tribute to the conquerors.

"In chamber B the wall was continued to the south, or to the left facing the great lion,[11] by an eagle-headed figure resembling that already described; adjoining it was a corner-stone, occupied by the sacred tree; beyond, the wall ceased altogether. On digging downward, it was found that the slabs had fallen in; and although they were broken, the sculptures, representing battles, sieges, and other historical subjects, were, as far as it could be ascertained by the examination of one or two, in admirable preservation. The sun-dried brick wall, against which they were placed, was still distinctly visible to the height of twelve or fourteen feet; and I could trace, by the accumulation of ashes, the places where beams had been inserted to support the roof, or for other purposes. This wall served as my guide in digging onward, as, to the distance of 100 feet, the slabs had all fallen in. I was unwilling to raise them at present, as I had neither the means of packing nor moving them.

"The first sculpture, still standing in its original position, which was uncovered after following this wall, was a winged human-headed bull of yellow limestone. On the previous day the detached head, now in the British Museum, had been found. The bull, to which it belonged, had fallen against the opposite sculpture, and had been broken by the fall into several pieces. I lifted the body with difficulty; and, to my surprise, discovered under it sixteen copper lions, admirably designed, and forming a regular series, diminishing in size from the largest, which was above one foot in length, to the smallest, which scarcely exceeded an inch. To their backs was affixed a ring, giving them the appearance of weights. Here I also discovered a broken earthen vase, on which were represented two Priapean human figures, with the wings and claws of a bird, the breast of a woman, and the tail of a scorpion, or some similar reptile. I carefully collected and packed the fragments.

"Beyond the winged bull the slabs were still entire, and occupied their original positions. On the first was sculptured a winged human figure, carrying a branch with five flowers in the raised right hand, and the usual square vessel in the left. Around his temples was a fillet adorned with three rosettes. On each of the four adjoining slabs were two bas-reliefs, separated by a band of inscriptions. The upper, on the first slab, represented a castle built by the side of a river, or on an island. One tower is defended by an armed man, two others are occupied by females. Three warriors, probably escaping from the enemy, are swimming across the stream; two of them on inflated skins, in the mode practiced to this day by the Arabs inhabiting the banks of the rivers of Assyria and Mesopotamia; except that, in the bas-relief, the swimmers are pictured as retaining the aperture, through which the air is forced, in their mouths. The third, pierced by arrows discharged from the bows of two high-capped warriors kneeling on the bank, is struggling, without the support of a skin, against the current. Three rudely designed trees complete the background.

"In the upper compartment of the next slab was the siege of the city, with the battering-ram and moveable tower, now in the British Museum. The lower part of the two slabs was occupied by one subject, a king receiving prisoners brought before him by his vizir. The sculpture, representing the king followed by his attendants and chariot, is already in the national collection. The prisoners were on the adjoining slab. Above their heads are vases and various objects, amongst which appear to be shawls and elephants' tusks, probably representing the spoil carried away from the conquered nation.

[11] Entrance A, chamber B, plan 3.

"Upon the third slab were, in the upper compartment, the king hunting, and in the lower, the king standing over the lion, both deposited in the British Museum; and on the fourth the bull hunt, now also in England, and the king standing over the prostrate bull.

"The most remarkable of the sculptures hitherto discovered was the lion hunt; which, from the knowledge of art displayed in the treatment and composition, the correct and effective delineation of the men and animals, the spirit of the grouping, and its extraordinary preservation, is probably the finest specimen of Assyrian art in existence.

"On the flooring, below the sculptures, were discovered considerable remains of painted plaster still adhering to the sun-dried bricks, which had fallen in masses from the upper part of the wall. The colors, particularly the blues and reds, were as brilliant and vivid when the earth was removed from them, as they could have been when first used. On exposure to the air they faded rapidly. The designs were elegant and elaborate. It was found almost impossible to preserve any portion of these ornaments, the earth crumbling to pieces when an attempt was made to raise it."

Our next extract describes, in Mr. Layard's graphic style, the discovery of the beautiful obelisk, now in the British Museum.

"It was in the centre of the mound, however, that one of the most remarkable discoveries awaited me. I have already mentioned the pair of gigantic winged bulls, first found there. They appeared to form an entrance and to be only part of a large building. The inscriptions upon them contained a name, differing from that of the king, who had built the palace in the north-west corner. On digging further I found a brick, on which was a genealogy, the new name occurring first, and as that of the son of the founder of the earlier edifice. This was, to a certain extent, a clue to the comparative date of the newly discovered building.

"I now sought for the wall, which must have been connected with the bulls. I dug round these sculptures, and found no other traces of building, except a few squared stones, fallen from their original places. As the backs of the bulls were completely covered with inscriptions, in large and well-formed cuneiform characters, I was led to believe that they might originally have stood alone. Still there must have been other slabs near them. I directed a deep trench to be carried, at right angles, behind the northern bull. After digging about ten feet, the workmen found a slab lying flat on the brick pavement, and having a gigantic winged figure sculptured in relief upon it. It resembled some already described; and carried the fir-cone, and the square basket or utensil, but there was no inscription across it. Beyond was a similar figure, still more gigantic in its proportions, being about fourteen feet in height. The relief was low, and the execution inferior to that of the sculptures discovered in the other palaces. The beard and part of the legs of a winged bull, in yellow limestone, were next found. These remains, imperfect as they were, promised better things. The trench was carried on in the same direction for several days; but nothing more appeared. It had reached about fifty feet in length, and still without any new discovery. I had business in Mosul, and was giving directions to the workmen to guide them during my absence. Standing on the edge of the hitherto unprofitable trench, I doubted whether I should carry it any farther; but made up my mind at last, not to abandon it until my return, which would be on the following day. I mounted my horse, but had scarcely left the mound when a corner of black marble was uncovered, lying on the very edge of the trench. This attracted the notice of the superintendent of the party digging, who ordered the place to be further examined. The corner was part of an obelisk, about seven feet high, lying on its side, ten feet below the surface.

"An Arab was sent after me without delay, to announce the discovery, and on my return I found the obelisk completely exposed to view. I descended eagerly into the trench, and was immediately struck by the singular appearance, and evident antiquity, of the remarkable monument before me. We raised it from its recumbent position, and, with the aid of ropes, speedily dragged it out of the ruins. Although its shape was that of an obelisk, yet it was flat at the top and cut into three gradines. It was sculptured on the four sides; there were in all twenty small bas-reliefs, and above, below, and between them was carved an inscription 210 lines in length. The whole was in the best preservation;

scarcely a character of the inscription was wanting; and the figures were as sharp and well defined as if they had been carved but a few days before. The king is twice represented, followed by his attendants; a prisoner is at his feet, and his vizir and eunuchs are introducing men leading various animals, and carrying vases and other objects of tribute on their shoulders, or in their hands. The animals are the elephant, the rhinoceros, the Bactrian, or two-humped camel, the wild bull, the lion, a stag, and various kinds of monkeys. Amongst the objects carried by the tribute-bearers, may perhaps be distinguished the tusks of the elephant, shawls, and some bundles of precious wood. From the nature, therefore, of the bas-reliefs, it is natural to conjecture that the monument was erected to commemorate the conquest of India, or of some country far to the east of Assyria, and on the confines of the Indian peninsula. The name of the king, whose deeds it appears to record, is the same as that on the centre bulls; and it is introduced by a genealogical list containing many other royal names.

"I lost no time in copying the inscriptions, and drawing the bas-reliefs, upon this precious relic. It was then carefully packed, to be transported at once to Baghdad. A party of trustworthy Arabs were chosen to sleep near it at night; and I took every precaution that the superstitions and prejudices of the natives of the country, and the jealousy of rival antiquaries, could suggest."

Among the numerous other sculptures which Mr. Layard, with great trouble and expense, succeeded in forwarding to England, was the figure of a king, one of the most carefully executed and best preserved in the palace. He is represented with one hand on the hilt of his sword, the other being supported by a long wand or sword. It was found in the north-west palace at Nimroud.

When Mr. Layard had expended the funds appropriated by the Trustees of the British Museum for the excavations, and sent a large number of sculptures down the Tigris to Busrah, to be shipped to England, he caused the excavations to be carefully filled up, and leaving for a season the scene of his labors, returned to England. Another expedition has since been sent to Nimroud, further excavations have been made, and Mr. Putnam will ere long publish their results. In the meantime, we feel that we cannot too cordially commend to the reading public, the first work of Mr. Layard, as affording the most interesting and important revelations concerning the actual state of the ancient world, which have been made public since the Egyptian discoveries of Champollion.

FRAGMENT OF A POEM

—

BY WM. ALBERT SUTLIFFE

—

It was the twilight, and we sat alone.
We sat alone beside the winter fire —
My friend and I – a fire that crackled well,
And sounded through the stillness as a flame
Shoots through the dark. The embers of the sun
Had died to ashes. While it sunk we talked
Of Love, of Beauty, Poetry and Hope,
Which are religion. For, is Beauty loved,
Then God is loved, and in our loving we
Do emulate his noblest attribute.
But all our words had failed to silentness,
And memories clustered in the heart's twilight,
As shadows in a wood; and all was still.
But in the quietness there seemed to grow
A sympathetic mood, and we to look,
As through glass, into each other's mind,
Calm reading, while our thoughts and feelings verged
In a soft sadness to one common point.
Then low I spoke: – "Were it not sweet and well
To die from out this chaos of a life
Into the waiting dark, and leave our toil
To stronger minds and hands? To spurn the clay,
And mount the crystal air in spiral gyre,
Glad-voiced, and angel-winged, like bird uncaged?
I think it sweet! or so it seemeth now,
When I look back, as down a charnel-vault,
Into the retrospect, and see it all; —
See every should-be that was never done,
And every would-be that has died its death,
And my hot dreams, and my distempered hopes,

Конец ознакомительного фрагмента.