

water-colour art of the last generation from the hand of one of its greatest proficient.

Mr. Wood, to whom we alluded briefly in our last number (p. 46), has obtained authority from the Sultan to make extensive excavations at Ephesus, in order to bring fully to view the remains of the famous temple of Diana, burnt by Erostratus. The site has been discovered already, the pavement of the *cella* has been laid bare, together with several magnificent architectural fragments.

In the *Beilage* of the *Allgemeine Zeitung* for January 9, Dr. Alfred Woltmann gives an account of the rearrangement, &c. of the gallery of paintings at Carlsruhe. This gallery contains many works of value, many old German pictures, some Italian, a large collection of eighteenth-century French, amongst which are some valuable Chardin, and a good deal of modern German painting. All this was in the most miserable state of neglect and confusion; now order and reform have passed everywhere except into the catalogue, which corresponded in ignorant carelessness with the previous state of the pictures. Dr. Woltmann mentions, by way of example, that a Madonna of La Hire is ascribed to Poussin, who, it is stated, was born 1505—died 1565. Thus a painting of a century later than Poussin is first given to him, and then the period of his activity is *antedated* by a century.

The regulations for the coming Salon have been much debated in Paris. A sentiment has been gaining ground amongst artists in favour of establishing complete independence of the government. The present programme, founded on the report addressed by M. Charles Blanc, the Director des Beaux-Arts, to the Minister of Public Instruction must be considered only as a temporary compromise. Though for the moment no practical result has been achieved, the day is not far distant when juries, medals, &c.—all, in short, that does or is supposed to symbolize protection in art—will be swept away. M. Louvrier de Lajolais remarks in the *Chronique des Arts* for December 24, 1871: "La seule protection que l'État doit aux artistes, c'est celle à l'aide de laquelle ces derniers parviendront à se constituer indépendants de lui."

M. Jules Labarte, who is well known by his works on the arts of the middle ages and the renaissance, has just been named *membre libre* of the Académie des Inscriptions et Belles-Lettres.

Selected Articles.

Die neuen Ausgrabungen in Pompeji und Herculaneum. Von R. Engelmann. Mit Grundrissen. Zeitschrift für bildende Kunst, Feb. 9. Die Darstellung des Abendmahls durch die byzantinische Kunst. Von Dr. Ed. Dobbert. Jahrbücher für Kunstwissenschaft, Dec. 31, 1871.

New Publications.

- BEQQ DE FOUQUIÈRES, L. *Aspasie de Milet. Étude historique et morale.* Paris: Didier.
- BURTON, Capt. R. F. *Zanzibar; City, Island, and Coast.* 2 vols. Tinsley.
- CHÉNIER, André. *Poésies de. Edition critique, par L. Beqq de Fouquières.* 2^{me} éd. revue et corrigée. Paris: Charpentier.
- CHERRULIEZ, V. *La Revanche de Joseph Noviel.* Berlin: Asher.
- DOBBERT, E. *Die Darstellung d. Abendmahls durch die byzantinische Kunst.* Leipzig: Seemann.
- ERCKMANN-CHATRIAN. *Histoire du Plébiscite racontée par un des 7,500,000 oui.* Paris: Hetzel.
- GRAESSE, J. G. Th. *Guide de l'amateur de porcelaines et de poteries.* 3^{me} éd. Dresden: Schönfeld.
- HEYDEMANN, H. *Humoristische Vasenbilder aus Unteritalien.* Berlin: Bessersche B.
- LEFARTH, J. A. Lambert v. Hersfeld. *Ein Beitrag zu seiner Kritik.* Göttingen: Vandenhoeck u. Ruprecht.
- LECOUVÉ, E. *Conférences parisiennes.* Paris: Hetzel.
- LENZ, VON. *Die grossen Pianofortevirtuosen unserer Zeit aus persönlicher Bekannntschaft.* Liszt, Chopin, Tausig, Henselt. Berlin: Behr.
- LIPPMANN, F. *Eine Studie üb. chinesische Emailvasen.* (Museum Reprint.) Wien: Rosner.

- MICHELANGELO BUONARROTTI, *Le Rime di. Nachdichtungen von Hans Grasberger.* (Complete collection.) Bremen: Kuhnmann.
- MENCH, A. *Die Münzsammlung d. Kantons Aargau.* Aarau: Sauerländer.
- NOTTEBOHM, G. *Beethoveniana. Aufsätze u. Mittheilungen.* Leipzig: Rieter-Biedermann.
- RIMBAULT, E. F. *The Old Cheque Book, or Book of Remembrance, of the Chapel Royal from 1561 to 1744.* (Camden Soc.)
- SAJJID BATTAL, *Die Fahrten des. Ein alttürkischer Volks- u. Sittenroman.* Uebersetzt von Dr. Ethé. 2 Bde. Leipzig: Brockhaus.
- WESTPHAL, R. *Elemente d. musikalischen Rhythmus, m. besond. Rücksicht auf unsere Opernmusik.* Jena: Costenoble.

Physical Science and Philosophy.

Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art, and Custom. By Edward B. Tylor, author of *Researches into the Early History of Mankind, &c.* 2 vols. Murray, 1871.

It is perhaps inevitable that in the present chaotic state of our knowledge of man's mental nature and its relation to his visible organism, a work like the present should be unsatisfactory. The minute anatomy of the brain has been long ago exhaustively investigated, while the comparative study of its form and size in different races and individuals has been carried on by means of extensive collections of crania and casts; yet, although the brain is almost universally admitted to be the organ of the mind, by neither of these lines of research nor by any combination of them, have any definite conclusions been arrived at as to the relation of the brain to the various mental faculties. Up to the present day our physiologists dispute as to whether the forehead or the occiput is the seat of the intellect, yet they scout the idea of giving up their hitherto barren line of investigation, in favour of that experimental method of comparing function with development which, the much-abused phrenologists maintain, leads to complete success. Equally unsatisfactory is the practice of leaving out of view, in theories of mental development, the numerous well-established cases of abnormal mental phenomena which indicate latent powers in man beyond those usually recognised. These are looked upon as obscure diseases of the nervous system, and although their occurrence is very rare to individual experience, the records of them are now sufficiently voluminous to furnish comparable cases to almost all that occur. They can thus be grouped into classes, and this fact, of each one forming an item in a group of analogous cases, is supposed to preclude the necessity of any attempt at a rational explanation of them. This is the method very largely adopted by Mr. Tylor, who in treating of the beliefs, customs, or superstitions of mankind, seems often to be quite satisfied that he has done all that is required when he has shown that a similar or identical belief or custom exists elsewhere.

In these volumes he has presented us with an enormous mass of facts of a very miscellaneous character, and he apologizes for this by the necessity of establishing a firm foundation for so important and novel an enquiry as that which he has undertaken. But the point and bearing of a large number of these facts is not always clear, and his book would have been both more readable and more instructive if typical facts only had been given, and if the propositions sought to be established had been laid down with more precision. In noticing a work so full of detail, it is only possible here to allude to a few of the more striking and characteristic features, as, owing to the author's somewhat involved and prolix style, no extracts of reasonable length could give any idea of the way in which the various branches of the subject are treated.

One of the most important results of Mr. Tylor's researches, and that which is most clearly brought out in every part of his work, is, that for the purpose of investigating the development of man's mental nature race may be left out of the question, and all mankind treated as essentially one. If we accept this as the result of a long and, as far as this particular question is concerned, almost exhaustive study, it forms a powerful argument against the polygenetic school of anthropology; for had the several races of man been derived from several distinct animal forms, or in any other independent way, it is hardly possible to conceive that no fundamental differences whatever should be exhibited in the nature and quality of their mental faculties. Another important question treated very fully is that of development and progress, which are held to be fully established, degeneration being rare and exceptional; and the passage in Sir Charles Lyell's *Antiquity of Man*, in which he sarcastically maintains that if man has degenerated we ought to find, instead of rude implements of flint and bone, lines of buried railroads and electric telegraphs, with astronomical instruments and microscopes better than any we possess, is quoted with approval. But surely this passage is illogical; for man might slowly degenerate in mind while still progressing in arts, and even in science, because these are necessarily growths, and the adapter and improver may have less genius than the inventor who went before him. Mr. Galton has carefully discussed one phase of this question in his *Hereditary Genius*, and gives good reasons for believing that the average Greek of antiquity was higher mentally than the average European of to-day; and the fact that the Greeks had neither microscopes nor even the printing machine has really no bearing whatever on the question. The conception that the human race, as a whole, was higher morally and intellectually ten thousand years ago than it is now, is not disproved by evidence of any amount of inferiority in the arts, which of course is overwhelming. Yet even on this point the facts and arguments of Professor Piazzi Smyth should have been noticed; for he shows that what is admitted to be one of the most ancient buildings on the earth is so perfect both in design and execution, as to demonstrate that its constructors must not only have equalled our modern engineers in mental capacity, but must have possessed instruments capable of determining angles, levels, and distances, with as much precision as any we now possess.

Children's games, nursery poems, proverbs and riddles, are all adduced to show the close mental resemblance between remote ages and widely separated races; but the illustrations of this principle are sometimes far-fetched and improbable, as when the saying, that a frightened person was "ready to jump out of his skin" is connected with the belief in were-wolves—men who had the power for a time of getting out of their own skin to become wolves.

Mythology and nature-myths are next treated at great length, but with little novelty or useful result. The chapters on language are however very good. They treat especially of radical and universal similarities; so that even here Mr. Tylor is enabled to ignore race and all special linguistic affinities, and to show that there is a substratum common to all human language. The words or sounds expressing affirmative and negative, dislike, silence, near and far, and many others, are shown to resemble each other all over the world, and to be founded on interjectional sounds which express similar ideas to all mankind. The mode of counting among various nations furnishes similar fundamental resemblances. These subjects are very fully treated, and afford a solid foundation for the developmental theory of the origin of language.

More than half the work is occupied with the subject of

"Animism" or the doctrine of souls. We are overwhelmed with elaborate details of the endlessly varied ideas and beliefs of men as to the soul, spirits, and gods. We are constantly told that each such belief or idea "finds its place," with the implication that it is thus sufficiently accounted for. But this capacity of being classified necessarily arises from the immense variety of such beliefs and from the fact that they are founded on natural phenomena common to all races, while the faculties by which these phenomena are interpreted are essentially the same in every case. Any great mass of facts or phenomena whatever can be classified, but the classification does not necessarily add anything to our knowledge of the causes which produced the facts or phenomena. We find at times great looseness of statement when Mr. Tylor attempts to account off-hand for superstitions. He tells us, for example, that when the devil with horns and hoofs and a tail had once become a fixed image in the popular mind, "of course men saw him in this conventional shape." Now this general statement is simply not true. In the records of witchcraft-trials it will be found that witches generally described the devil as "a man"—"a dark man"—"a black man"—"a gentleman in black clothes"—"a gentleman richly dressed," and seldom, if ever, as appearing in the full conventional form. The theory of expectant attention determining the form taken by a delusion does not cover these facts, and this is even more strikingly shown by another discordance of a similar nature. It is certainly a popular belief that the devil is hot, and that his touch burns. Yet the witches, whether in Scotland, England, or France, almost invariably describe him as cold to the touch; and this statement, so often made by persons who could have had no knowledge of what others had said, curiously agrees with the phenomenon described by modern spiritualists, of a cold wind passing over the hands during a *séance*. Such a correspondence of testimony in a direction exactly opposed to popular belief points to some substratum of unrecognised facts even in witchcraft, and it is not satisfactory to find the nature of this testimony misstated to make it fit in with a foregone conclusion. A recognition of the now well-established phenomena of mesmerism would have enabled Mr. Tylor to give a far more rational explanation of were-wolves and analogous beliefs than that which he offers us. Were-wolves were probably men who had exceptional power of acting upon certain sensitive individuals, and could make them, when so acted upon, believe they saw what the mesmeriser pleased; and who used this power for bad purposes. This will explain most of the alleged facts without resorting to the short and easy method of rejecting them as the results of mere morbid imagination and gross credulity. Again, we are told that "the ghost or phantasm seen by the dreamer or visionary is like a shadow, and thus the familiar term of the *shade* comes in to express the soul." But the dreamer sees what appear real substantial bodies, not shadows or images; and it is only the waking seer who, by seeing other objects through the phantasms or by testing their unsubstantiality by means of touch, can arrive at the conclusion that they are of a spiritual or shadowy nature. So, the general belief in the ghost of a man being seen in or near the house where he lived, is not at all accounted for by dreams, which are bound by no limits of locality, and generally show persons in the most incongruous places. Accounts of the other world seen in visions are said to be "just what the seer has been taught to expect"; but at p. 47, vol. ii. the seer is *surprised* to find the trees, shrubs, and paths such as she had been used to on earth. It was not therefore what she had been "taught to expect"; and the remark becomes both valueless and misleading, instead of helping us to understand how such visions originate.

Although the details given on these subjects are so numerous and so heterogeneous as to be wearisome in the last degree, they are yet altogether one-sided. They have been amassed with one object and selected, no doubt unconsciously, so as to harmonize with the *a priori* convictions of the writer. All narratives tending to prove that anything which goes under the general term supernatural really exists as fact, are either entirely omitted or just mentioned in such a manner as to imply that they are necessarily impostures or delusions, and therefore unworthy of discussion. There is, however, on record a mass of facts or alleged facts ranging through every period of history down to the present day, and going to prove that the so-called supernatural is not all delusion, and that many of the beliefs of all ages classed as superstitions, have at least a substratum of reality. In the works of Dr. Kermer, Ennemoser, Görres, and Dale Owen, and in Mr. Howitt's *History of the Supernatural*, are collections of these facts which, although by no means exhaustive, are yet far more extensive than those Mr. Tylor has cited to support his argument; while many of them are so thoroughly well established that they cannot be explained away. It is therefore at least a possible solution of the problem of animism, that the uniformity of belief is due in great part to the uniformity of the underlying facts; and a work on the development of religion and mythology should fairly grapple with the question, "How much of truth is at the bottom of the so-called superstitious beliefs of mankind?" But our author avoids all such inconvenient enquiries by means of his infallible nostrum. A fact or a belief occurring once only might require explanation, but if a second or an analogous fact or belief can be found elsewhere, the whole thing becomes clear. "Second sight," for instance, occurs among savages as well as in Scotland. Nothing more is required, according to Mr. Tylor, to prove that it has no existence at all, except as a mere "belief." Those curious phenomena which have been recently investigated by Mr. Crookes and other Fellows of the Royal Society, and which are declared to be realities by members of the French Institute, by American judges and senators, and by many medical and scientific men in this country, are treated in exactly the same way. Something closely related to them is recorded by classical writers, and occurs now among savage tribes. It is therefore clearly a case of "survival of old beliefs," and no further notice need be taken of it. Mr. Tylor even goes so far as to say that for his purpose it really matters little whether they are true or not. In order to arrive at true results as to the origin, nature, and development of men's beliefs, it matters not whether their foundation is fact or imagination! This belief of Mr. Tylor seems to the present writer as completely an hallucination as any to be found recorded in his volumes.

It is pertinent to recall the fact that even matters of pure science, when they have run strongly counter to popular opinion, have been treated just as Mr. Tylor treats superstitions. Less than twenty years ago the evidence for the antiquity of man was in this category. It was then ignored or sneered at as beneath discussion. It was treated just as if it were an "epidemic delusion;" yet every iota of it turned out to be fact, and fact of the highest importance and of surpassing scientific and human interest. This was a purely scientific question, but there is another which had all the aspect and characteristics of a superstitious delusion, and was yet a truth. About twenty-eight years ago the phenomena of insensibility to pain in the mesmeric trance attracted attention. Experiments of this kind were often exhibited in public, and most painful surgical operations were performed on subjects who manifested no indications of feeling. The present writer well remembers the

universal shout of indignation at these experiments. They were declared to be gross imposture or delusion from beginning to end. The apparent unconsciousness was all sham, and the medical men who performed the operations, and gave a detailed account of them, were accused of being parties to the imposture, and even of having bribed the patients. It took many years to establish this fact, of insensibility to the most excessive stimuli and the most intense pain produced without the use of any drug or any violence; but it was established. It remains, however, a fact of which modern science can give no intelligible account, and which it therefore ignores as much as possible.

These examples (and many others might be adduced) should teach us, that it is unsafe to deny facts which have been vouched for by men of reputation after careful enquiry, merely because they are opposed to our prepossessions. A work like the present, one-sided though it be, furnishes much evidence to support the views of those who maintain that a considerable portion of the so-called superstitions of mankind repose upon facts; that these facts have been almost always misunderstood and misinterpreted in past ages, as they are now by the ignorant and among savages; and that, until they are recognised as possible realities, and studied with thoroughness and devotion and a complete freedom from foregone conclusions, it is hopeless to expect a sound philosophy of religion or any true insight into the mysterious depths of our spiritual nature.

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ARCTIC EXPLORATION.

LIEUTENANT WEYPRECHT'S report of the Austrian Polar Expedition of last year was read before the Academy of Sciences at Vienna on the 7th of December last.

After showing how the ocean streams in the Arctic basin must maintain a delicate balance between the amount of ice produced and the quantity carried out southward to be restored again to a liquid state, so that a certain definite average is never exceeded; and how the outgoing cold current of necessity requires a complementary equatorial flow, the author proceeded to examine this circulation, aided by observations made during the voyage.

Lieutenant Weyprecht claims for the depth-temperatures recorded by this expedition that they are the first trustworthy observations made in these regions, and that they throw new light on the final track of the Gulf Stream.

The entire sea between North Cape, Bear Island, and Novaia Zemlia, was found to contain comparatively warm water, which moved to northward as summer advanced, giving up its warmth by contact with the ice, and carrying the ice edge before it. The depth-temperatures show that the warmer water formed a strongly marked upper stratum, which decreased in temperature and thickness as it was traced to north-eastward. In the meridian of 44° E. in 72° N. the surface temperature was 40°·5 F., and in 77° N. in the same longitude it had fallen to 36° F.; at the former point the temperature of 32° was reached at a depth of 420 feet, at the latter in 65 feet. Everywhere at a depth of 800 feet an almost uniform temperature of 29°·5 was found.*

In 60° E., near the north coast of Novaia Zemlia, the warmer stratum was found by the expedition to have decreased in thickness to 30 feet, so that its limit had nearly been reached. Judging from this, Lieutenant Weyprecht raises the question whether the open water, with a surface temperature of 44°, navigated last year beyond Novaia Zemlia to 81° E. by Captain Mack, can be due to the influence of this warm stratum alone. In explanation of it he advances the theory that the great Siberian rivers, flowing in part through steppe-lands which in summer have an almost tropical climate, pour such a quantity of fresh and warmed water into the shallow Siberian sea as to account for its observed freedom from ice. One of the smaller streams in the Taimyr peninsula was found by Middendorf to have an average temperature in August of 52°.

* Former observations with unprotected thermometers in these regions appeared to show an increase of temperature from the surface downwards.