The so-called South Plant of Egyptian Art

THE identification of the original source of any conventionalised artistic form is always, I think, worth notice. It will probably interest many readers of NATURE to draw their attention to a short but instructive piece of work of this kind which Prof. Julius Lange has communicated to the Royal Academy of Copenhagen (*Bull.*, 1884, pp. 109-114). I am indebted to Mr. Liden, one of our garden staff at Kew, for a translation of the paper from the original Danish. I have freely condensed the details.

There is a well-known Egyptian symbol which represents both Northern and Southern Egypt. The northern symbol is admitted to represent the stem and head of the Papyrus. But the southern symbol has not hitherto been identified with any certainty. It has a lily-like form, and has been generally referred to the Lotus (*Nymphaea*), an identification which Prof. Lange thinks quite inadmissible, as the conventionalised treatment of this plant in Egyptian art is quite different.

The twin-symbol combining in a kind of knot the north and south plants is commonly found inscribed on the thrones of statues of Egyptian kings. In the later examples the south plant has the form of a flower with three divisions of the perianth depicted (implying that it was either five- or six-parted), and a definite flower-stalk. In one case Prof. Lange met with an example where the flower was separated from its stalk by some transverse carved lines.

Prof. Lange has, however, recently examined a diorite statue of King Chefredjet, which gives the symbol in a more primitive form. He finds that the supposed flower passes imperceptibly into the stalk, and that the apparent perianth segments are really distinct parts which are tied together by indications of ligatures. Without then arriving at any definite conclusion, he is content to point out the resemblance of the south symbol in this form to the palm-capitals of the Ptolemaic period. In these the leaves of the date are disposed round the body of the capital, and the junction of this with the column is indicated by transverse bands, the conventional representations of the ligatures which would hold the leaves together and in their places. As the date, according to Alphonse de Candolle (*"L'Origine des Plantes cultivées,"* p. 240) has existed from prehistoric times in the dry and hot zone from Senegal to the basin of the Indus, between lat. 15° and 30°, a more characteristic plant as the symbol of Southern Egypt can hardly have been pitched upon.

W. T. THISELTON DYER

Earthworms

I SEE, in your issue of October 9 (vol. xxx. p. 570), an interesting communication entitled "A Gigantic Earthworm," in which the writer refers to worms of large size being fairly common in parts of Cape Colony. I may mention that here in Ceylon it is not an infrequent sight to see two or three of these big worms in the same day, after showers, though I would not pronounce them to be exactly common. I have seen some fully four feet in length, and about the thickness of one's little finger. They are of a pale slaty-bluish colour, and appear, on close examination, to have faint prismatic colours over parts of the body. These worms are seemingly not confined to particular soils or altitudes, as I have met with them at elevations of from 2000 to 4000 feet above the sea. Owing to their seeming inertness of body, the *lob-worms*—as I have frequently heard them called—soon fall an easy prey to swarms of small red and black ants, that attack the victim as it lies on the ground.

Passing from large to small, I may mention a curious earthworm that I found to be very common in North Borneo. The chief peculiarity about this worm is the size of its "cast," this being about four inches high by one inch and a half across the top, which is made cup-shaped or with a marked depression, for the purpose, I believe, of catching water. The stem—if I may apply the word—of the "cast" is about an inch in diameter, strongly built of rows of earthy matter laid circumferentially, widening towards the top into a lip that forms the side of the cup. Sometimes a leaf may have fallen on the "cast" in the course of erection, and this is at once built over, so that part of the "cast" may be seen above and part below. The worm itself is very small, and hard to secure. I have found the only method of catching them was to suddenly break off a fresh "cast," when one could get a glance of the worm as it rapidly withdrew into the ground. It is of a fleshy red colour, and about the thickness of the stem of a crow-quill pen, but I do

not know how long, as I never succeeded in extracting a whole worm from its burrow. The "casts" are very numerous, and weigh, I should think, quite an ounce each, and are to be met with both in the forest—as well as in gardens—and cultivated land. I also found them close to the banks of rivers that were sufficiently near the sea to be considerably impregnated with salt, so that I conclude from this that salt water is not destructive, at least to this species.

FREDERICK LEWIS

Bogawantalawa, Ceylon, November 5

Injuries caused by Lightning in Africa

IT is a remarkable fact that in all the publications relating to Africa we so seldom come across accounts of injuries caused by lightning. Some travellers—those of the German Loango Expedition of 1873-76 for example—even distinctly report that, notwithstanding the extreme frequency of lightning in Africa, cases of damage inflicted by it are almost unheard of. During my own stay on the Congo, though I was eagerly on the lookout for instances of this kind, I did not succeed in authenticating a single case of injury due to the electric fluid. There was indeed a vague rumour among the natives of a man in some village having been struck dead and a "tshimbek" burnt down by lightning, but I could find no eye-witnesses of the fact; and all the time I was in Africa I never saw a tree or other object which showed any signs of having been struck by lightning. The only case of which I obtained any authentic report was that the coal-magazine of the French factory at Banana was burnt down in consequence of a lightning-stroke in March 1882. I have been recently informed, however, that just a year after the destruction of the French coal-magazine, the large gin-store of the Dutch factory at Banana was similarly destroyed, a flash of lightning having kindled a great fire there which lasted four days. As a result of these two accidents following so close on one another in the same locality, lightning-conductors are now being set up at Banana, and the International Association of the Congo has had conductors fixed on all the magazines at Vivi.

I find in Dr. Pogge's journals, which I am now preparing for publication, an instance, witnessed by that traveller himself, of a man being killed by lightning. As far as my own researches go, I find scarcely any literature concerning the use of lightning-rods or the frequency of accidents from lightning in the tropics; and if any of your readers would communicate to the columns of NATURE any information relating to this subject which they may have gained by a residence in those regions, they would render a great service to meteorological science.

Hamburg, November 29

VON DANCKELMAN

The Northernmost Extremity of Europe

YOUR correspondent, Mr. Mattieu Williams, says, on p. 54 that Tönsberg "is admitted by all as a high authority" on Norway. May I be permitted to ask who these "all" are? I knew this gentleman very well, and he never claimed the least *geographical* authority for a faulty and crude "Guide for Tourists," which is all that his work is. I beg to refer your correspondent to the preface, where the author himself says that, for reasons explained, it has many faults. To set Tönsberg up as a *geographical* authority would indeed be an insult to Norwegian geographers. Your correspondent further says that he saw with his own eyes, ten years ago, that Knivskjærødden jutted further north than the North Cape. Had I happened to meet him before he started on his excursion, I, then but a school-boy, could have informed him of this startling fact. What I said was, that we had assumed it, but it had only been *proved* by measurements this summer. That was all. As regards the *height* of the promontories on the coast of Arctic Norway, I am sorry to have to repeat my contradiction that there is no single one which is higher than the North Cape. Your correspondent again quotes Tönsberg. If quoting this "high authority" at all, the statement should be correct. Your readers are informed that this guide-book says that Sværholtklubben "is *twenty-four* Norwegian (why *Norsk*? if Norwegian it should be *Norske*) feet higher than the North Cape." Tönsberg says nothing of the kind. What he says is simply that it is *upwards of* (*hundred*) 1000 feet, and from this vague guess your correspondent evolves a fresh discovery and figures. Had he taken the trouble to consult the poorest of our geographies, he would have learned that the North Cape is *indisputably* the highest headland in Finnmarken. His concluding statement that there are a dozen others is merely an imaginative one.

As a foreigner, I cannot refrain from remarking that it seems strange to me that, because a man has paid a few weeks' visit to Norway, and even "halted in front of the North Cape for half an hour," he can claim to have become an authority on all scientific and other matters connected with that country among a nation which can boast of such distinguished explorers and *savants* as the English.

A NORWEGIAN

The Scandinavian Club

Our Future Clocks and Watches

IN connection with the indication of universal time by our future timepieces, I venture to suggest that the hours should be contained in one circle; but, instead of being numbered consecutively from 1 to 24, they might be arranged in Roman numerals, as at present, and if figured alternately would be almost, if not quite, as distinct as on the faces of our present style of clocks. Thus, the hours 2, 4, 6, &c., would be shown in figures, but the intermediate or odd hours, as 11, 13, 15, &c., would be more advantageously distinguished by an arrow-head or circular dot.

As regards the striking of the hours by our public and private clocks, they might strike up to twelve, as at present; the suggestion of your correspondent "R. B." (*NATURE*, vol. xxxi. p. 80), that they should not strike any number above six, appears to me as objectionable as if they struck up to twenty-four; but to distinguish between the afternoon and morning hours, the hours from thirteen to twenty-four might be distinguished by being preceded by two strokes in rapid succession either upon the bell which strikes the hours, or, preferably, upon a bell of a different tone.

B. J. HOPKINS

Leyton, Essex

Singular Optical Phenomenon

ON the night of November 28, at about six in the evening, I went to the window to look at the moon, and saw, as it were, a *second* moon behind the other. The effect was so like what one sometimes experiences from suddenly going out of a very light room, or other causes, that at the time I fancied it was only a defect in my sight. On going into my son's room an hour afterwards he said: "If something is not gone wrong with my eyes, there are two moons out to night." On this I went out again, but saw only the one moon as usual. Later in the evening a young girl who had been meeting a friend at the Montreux train, said her friend had said the moon looked *queer* all the while she was in the train. The night previous a pretty severe shock of earthquake occurred in Geneva and Lausanne, and a few hours after we had observed the moon on the 28th, a very violent gale and snowstorm took place, and lasted for about six or eight hours. I am not scientific enough to know whether the "rosy glow," reported on November 28 by Mr. Leslie of Southampton, can have any connection with this, or whether my letter will interest your readers.

X.

Vevey, Canton de Vaud, December 6

The Aurora Borealis

WITH the view of making the Norwegian catalogue of the aurora borealis, at which I am now working, as complete as possible, I take the liberty of asking meteorological societies which are in possession of journals supplied by those who have navigated *Norwegian waters*, to be good enough to place within my reach a copy of the observations which these journals contain respecting the aurora borealis seen near the *coasts of Norway or in their neighbourhood*. I should also be equally grateful for all information with regard to other unpublished observations of auroras of Norway, which may perhaps be found in the archives of meteorological institutes.

SOPHUS TROMHOLT

The Meteorological Institute of Christiania, November 19

THE UNITED STATES FISH COMMISSION

IN the year 1871 the Congress of the United States had its attention directed to the alarming decrease in the abundance of its east coast food fishes, and appointed a Commission to investigate the matter, with the idea of preventing the decrease. Prof. Spencer F. Baird, then Assistant Secretary of the Smithsonian Institution, was

appointed at the head of this Commission, and in the early summer of 1871, with a small but efficient corps of naturalists, he established himself upon the southern coast of New England at a place called Wood's Holl. Among the most noted of the members of that party were A. E. Verrill, S. J. Smith, and Sanderson Smith, all of whom have remained with the Commission every summer since its foundation. The first work of the Commission was to investigate the fauna, which then was comparatively unknown to science. In this way the food-supply of the food fishes and the food fishes near shore were carefully studied. During this one summer the fauna of this region was so carefully studied specifically that few new species have since been discovered. The main results were set forth in a very extensive report upon the invertebrate animals of Vineyard Sound by Profs. Verrill and Smith, and published in the first Fish Commission Report. In the summer of 1872 Eastport, Maine, was chosen as the station, and here the same systematic study was carried on with the addition of some dredging work done in shallow water with small boats. The summer of 1873 was spent at Portland, Maine; 1874 at Noank, Conn.; 1875 at Wood's Holl again; and 1876 being Centennial year, there was no summer station, but the energies of the Commission were exerted upon the Centennial Exhibition at Philadelphia. In 1877 a part of the year was spent at Halifax, Nova Scotia, arranging a fisheries treaty, and the remainder at Salem, Mass. The headquarters for the summer of 1878 were at Gloucester, Mass. Up to this time, and, in fact, until 1880, the Fish Commission had carried on all its off-shore work in steamers placed at its disposal through the courtesy of the Coast Survey and Navy Department, but had owned no boat of its own with the exception of small sailing-boats and a steam-launch in which the shore work could be done. Thus under a decided disadvantage, it would hardly be expected that a great amount of work could be carefully done; but, notwithstanding this, a large part of the Gulf of Maine was very carefully explored, under the direction of the Fish Commission. During the years 1878 and 1879 the fishermen of Gloucester very materially aided the Commission in its work of investigating the fauna of the shallower water of New England by preserving such specimens of animals as they happened to meet on their fishing trips. Scores of animals new to the American waters were taken from the fishing-banks by these fishermen, and the importance of their work should not be underestimated.

As yet the Fish Commission had done little practical work in its marine departments. It was for practical work that the Commission was established, and all its scientific work had some practical object in view. In the winter of 1878 and 1879 the Commission began important experiments upon the hatching of deep-water fish, but more especially cod. When America was first discovered, cod were found on all its shores in great abundance, and from this abundance the headland of Cape Cod received its name. As white men became more numerous on the shore and cities began to grow, the fish began gradually to decrease in number and be driven off into deep water because of the impure condition of the water. Now, in places where fifty years ago cod could be caught from any point of rocks, it is a rare thing indeed to catch this fish within several miles of shore. Men, who not many years ago could anchor a boat within a few rods of shore and catch fish in large quantities, are now obliged to visit the more remote ledges several miles from shore, and be satisfied with a light catch. Even in the deep water they are becoming scarcer. It was with the hopes of finding some remedy for this decrease that in 1878 and 1879 Prof. Baird began experiments upon artificially hatching these fish. Millions of eggs are laid where few come to maturity, the larger part being destroyed before they are hatched from the egg. Thus, if the eggs could be hatched and the