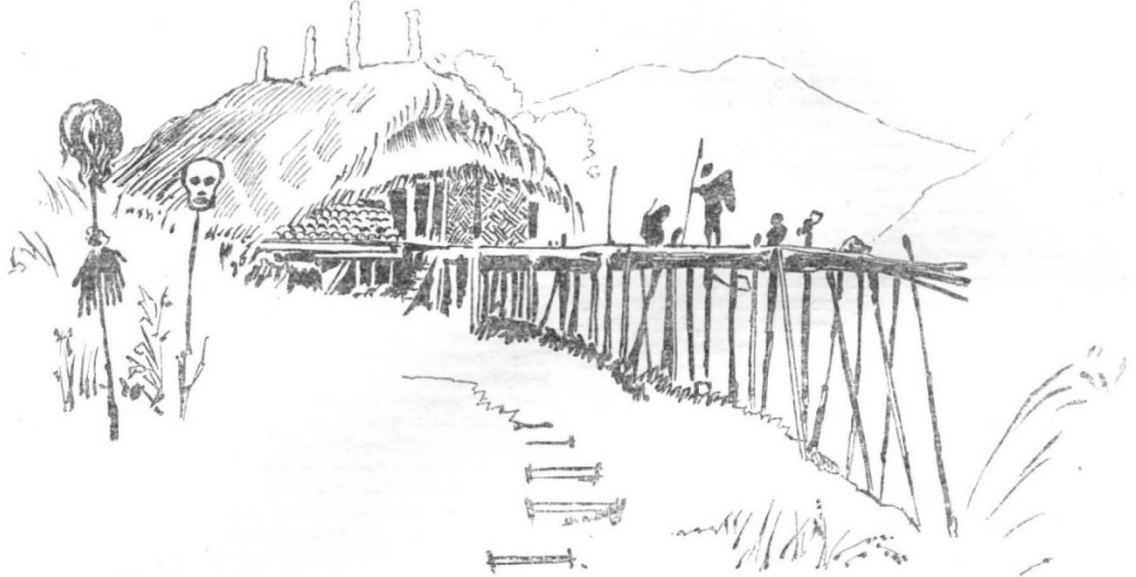


Dafas, Akas, Abors, Mishmis, Singphus, and Nagas (all) build pile-dwellings, as do the Kamtis.

Several peculiarities are noteworthy, *i.e.* that the custom is

confined to *hill races*, and not seen in plain races; that the invariable explanation offered to inquiry is that on the hill tops and spurs, where *alone* the villages are built, there is very little



level land; also that this form of house is a necessity among races that keep pigs and goats, which to any casual visitor is at once obvious.

As it is possible that this question may afford unexpected results when examined, I inclose sketch of a Naga "Morang,"

or skull house, which with its platform is the same as those they live in. Different tribes have variations of the pattern, and most have the platform balcony in some shape or other, and the posts go through the roof in some Nagas houses alone.

Asam

S. E. PEAL

Landslips.—The Cheshire Subsidences

UNDER the guidance of Mr. Thos. Higgin, F.L.S., and your correspondent Mr. Ward, I have just been examining the subsidences that have been lately taking place in the neighbourhood of Northwich. To understand how they occur, it is necessary to know that there are two beds of rock salt in the Triassic marl. The upper bed, 25 yards thick, is from 40 to 60 yards below the surface; the lower, 35 yards thick, is separated from the upper by about 10 yards of hard marl. The greater bulk of the salt is obtained in the form of brine pumped up from the upper bed. The lower bed is to a smaller extent worked as a salt-mine. From these operations two classes of subsidences result: the one general and gradual, due to the removal in solution of the rock salt of the upper bed by percolation of water and pumping, by which the surface of the ground sinks in undulations; the other, sudden fallings in of the ground into the mines, forming crater-like pits. It is to these I wish to call attention. I was fortunate enough to see one before it had become, as they all do, partially filled with water. I should judge it to be about 70 feet deep, 150 feet diameter at the top, and 20 or 30 feet at the bottom, where a little water was lodging. The problem to account for is how such an inverted cone of marl capped with boulder-clay and drift-sand could apparently have disappeared through so small a hole? The explanation appears to be this: By percolation of water the roof of the mine begins locally to give way and fall into the mine, gradually working its way to the surface, where it first appears in the form of a hole about the size of a well. The cavity will no doubt take a conical form, the base being at the roof of the mine; once the hole is formed, the surface-ground begins to slip and fall in around, gradually enlarging the orifice, the material disappearing into the mine below. This continues until the bottom is filled up and the sides of the "crater" attain the angle of repose. The whole thing will occur in a night. The subsidences certainly present a very remarkable appearance from the regularity of their circular or elliptical form and funnel crater-like shape. It is evident such subsidences could not happen except under special conditions, such as are provided by salt-mining and pumping in these Keuper marls. T. MELLARD READE

Park Corner, Blundellsands, Liverpool, December 22, 1880

Animal Reasoning

I SEND an account of a singular act of animal intelligence which may not be uninteresting to the readers of NATURE. A lady, a friend of mine, was at one time matron of a hospital for poor women and children which was maintained by subscription. One of the inmates was a blind girl who was there not as a patient, but temporarily till a home could be found for her. She had learned to feed herself, and at meal times a tray containing her dinner was placed on her knees as she sat in a comfortable chair for her special convenience in feeding herself. One day while she was eating, the pet cat of the establishment placed herself before the girl and looked long and earnestly at her, so earnestly that the matron, fearing the animal meditated some mischief to the girl, took her out of the room. Again the next day, at the same hour, the cat entered the room, but this time walked quietly to the girl's side, reared herself on her hind legs, and noiselessly, stealthily reached out her paw to the plate, selected and seized a morsel that pleased her, and, silently as she came, departed to enjoy her stolen meal. The girl never noticed her loss, and when told of it by her companions laughed very heartily.

It is evident that the cat from observation had entirely satisfied herself that the girl could not see, and by a process of reasoning decided she could steal a good dinner by this practical use of her knowledge. K. P.

Cambridge, Massachusetts

Ozone

THE letter of J. P. on this subject hardly gives enough data to enable one to found an opinion upon; but is it not possible the paper is coloured by ozone from the air? It is well known that a flame is the most potent method of collecting atmospheric electricity, and a properly-insulated spirit-flame ignited in dry air seldom fails to show some traces. I would suggest the experiment being repeated on the exposed plate of a gold leaf electrometer, the surrounding conditions of place, air, &c., being noted: also under a bell glass, where such conditions would be varied. Ozone is very strong just now, my paper this morning reaching 10, the limit of Negretti and Zambra's scale. J. RAND CAPRON

Guildown, December 28, 1880