

all parts of the world; that very fair libraries are accessible at Singapore and Batavia; and that, at the latter place, scientific papers can be published in French, German, or Dutch, in the *Natuurkundig Tijdschrift*, while the *Journal of Eastern Asia*, of Singapore, publishes similar works in English.

"In the hope that you may be one of those who will make use of my 'Tampat Senang,' I remain, with all respect and friendship,

"N. N. MIKLUHO-MACLAY

"28th April, 1875, Istana Johore,

"Res'dence of H.H. the Maharajah of Johore."

"In life, as in everything else, it is important to distinguish main points from secondary matter, and to act accordingly. Main points always remain main points, however important secondary objects may sometimes be. On account of this evidently correct view, I continue my journey into the interior of the Malayian peninsula, as my health is improving; to-morrow I shall go to Pahang, and for the moment I give up building the 'Tampat Senang.' It is possible that I must try and find some other locality than Johore for this, because the Maharajah of Johore, after nearly two months' talking, in which time I had made out all the plans and had completely gone through all the details of the proposed building, has at last declared to me that he only could let me have that tract of land which I had chosen for the 'Tampat Senang' for a certain number of years, and that he must retain certain rights on the same. As all this does not agree with my plans, and as the locality is not of decisive importance, I shall, in case the Maharajah does not decide differently, construct my 'Tampat Senang' somewhere else.

"I consider the foundation of Zoological Stations in the tropics (however simply and poorly they may be fitted out, if they are otherwise quiet and comfortable places for work) as of the greatest importance for zoology and botany, since museum collections and preparations in spirits cannot afford sufficient material for investigation either with regard to quantity or quality.

"I have sent a proposal to the Society of Naturalists at Batavia, to found a 'Tampat Senang' for naturalists in the Moluccas (at Amboina or at Ternate), and I intend to send similar proposals to scientific societies at Calcutta, and in Australia, and to some friends in Chile. If Russian Societies of Naturalists assist me I intend eventually to found a Zoological Station at the Sea of Ochotsk, or on the Pacific Ocean, myself.

"Zoological Stations in the Moluccas, in the Himalayan Mountains, in Tasmania, in the Fiji Islands, in Magellan's Straits, in Kamtschatka, &c., will yield not a few important results for all natural sciences. These stations will be particularly important for those naturalists who travel not only as tourists or as trade travellers of science, as it were, but who are engaged on some special work which requires large and fresh materials. Upon my return (which, however, is very uncertain at present) I will communicate to you my plans on the 'Tampat Senang' (the name seems to me to be quite appropriate) in detail. As it seems to me, they must be somewhat different from such Zoological Stations as your own at Naples, or we shall have to wait too long for their foundation. On my part I shall do all in my power for the carrying out of this idea, which nevertheless must remain a secondary (although important) object for myself.

"The day before yesterday I read in NATURE of May 6 of the official inauguration of your station at Naples, with much pleasure, and amongst the names I found those of several friends and acquaintances; so that I am led to hope that the scientific world will be interested in the 'Tampat Senang' in other parts of the globe.

¹ It is a matter of course that what I expect from my future "Tampat Senang" cannot apply to others. Only mine shall remain true to its name, whether built at Johore, or at the MacLay coast in New Guinea.

"My kindest regards to yourself and all workers at the Zoological Station of Naples.

"N. N. MIKLUHO-MACLAY

"Istana, Johore, 9th May (June?) 1875"

THE VATNA JÖKULL, ICELAND

THE following letter from Mr. W. L. Watts in reference to his journey across the Vatna Jökull has been forwarded to us by Mr. Logan Lobley. As we noted last week, this is the first time the Vatna Jökull has been crossed. The letter is dated "Griestadur, by Jökull sá á fjöllum (Iceland), July 12, 1875."

"I am happy to say I have crossed the Vatna Jökull. It occupied between fifteen and sixteen days in bad weather. Euriffa is by no means the highest mountain in Iceland; my aneroids registered 1,250 feet above Euriffa's height, subject to their correction upon my return to England.

"I feel certain that the Jökull of Iceland are advancing at a considerable speed. The part of the Vatna Jökull, in the south of Iceland, called Breithamerker Jökull, has advanced about one mile and a half since the 10th of May last, and threatens to cut off all communication in that direction along the shore. I think, however, its rapid advance is not, as the natives believe, owing to volcanic heat in the Vatna Jökull, but that it is caused simply by the vast increase of frozen material upon its cloud and storm-wrapped heights. This accumulation above the height of 5,000 feet goes on both in summer and winter, and below for another thousand feet the waste during the summer months by no means equals the accumulation during the rest of the year. The glacier at the north point, at which descended, by Kistufell has advanced about twelve miles since the making of Olsen's map of 1844, diverting the course of the Jökull sá á fjöllum and causing it to rise about twelve miles from where it appears to do upon the map, *i.e.* about eleven miles N.E. of Kistufell and twelve N.N.W. of Kverker Jökull, instead of at the base of Kistufell. The grand old water-course it has vacated forms an excellent road for several miles. I feel sure Iceland must slowly but surely in course of time succumb to the same fate as befell the Greenland colonies.

"I am now about to proceed to the active volcanoes upon the north of Vatna Jökull. They are situated in the part of the Odalters-brann called Dyngurfjöllum, and as I expect in the Kverker Jökull. I shall have no time to hunt for any more this year, but if time will allow I shall visit the source of the great lava stream of Skaptar Jökull, a mountain I saw from the Vatna Jökull, situated in its S.W. limb, which I think may repay inspection; and the lignite in the N.W. of Iceland.

"The destruction wrought by the eruptions of last winter is considerable. Several farms have been ruined by pumice and ash. Poor, dirty, interesting Iceland! both fire and water, the latter in all its forms, appear to conspire against it."

ON AN IMPROVED OPTICAL ARRANGEMENT FOR AZIMUTHAL CONDENSING APPARATUS FOR LIGHTHOUSES

ORDINARY optical apparatus adapted for a lighthouse which has to illumine the whole horizon, as at rock or insular stations, is unsuitable for stations situate on the coast line, or in narrow sounds, where the light has in some azimuths to be seen at great distances, in others at smaller, and where towards the land no light is wanted at all. The problem in such cases is to allocate the rays in the different azimuths in proportion to the distances and breadths of sea in which the light requires to be seen in those directions by the sailor. Before 1855 no attempt