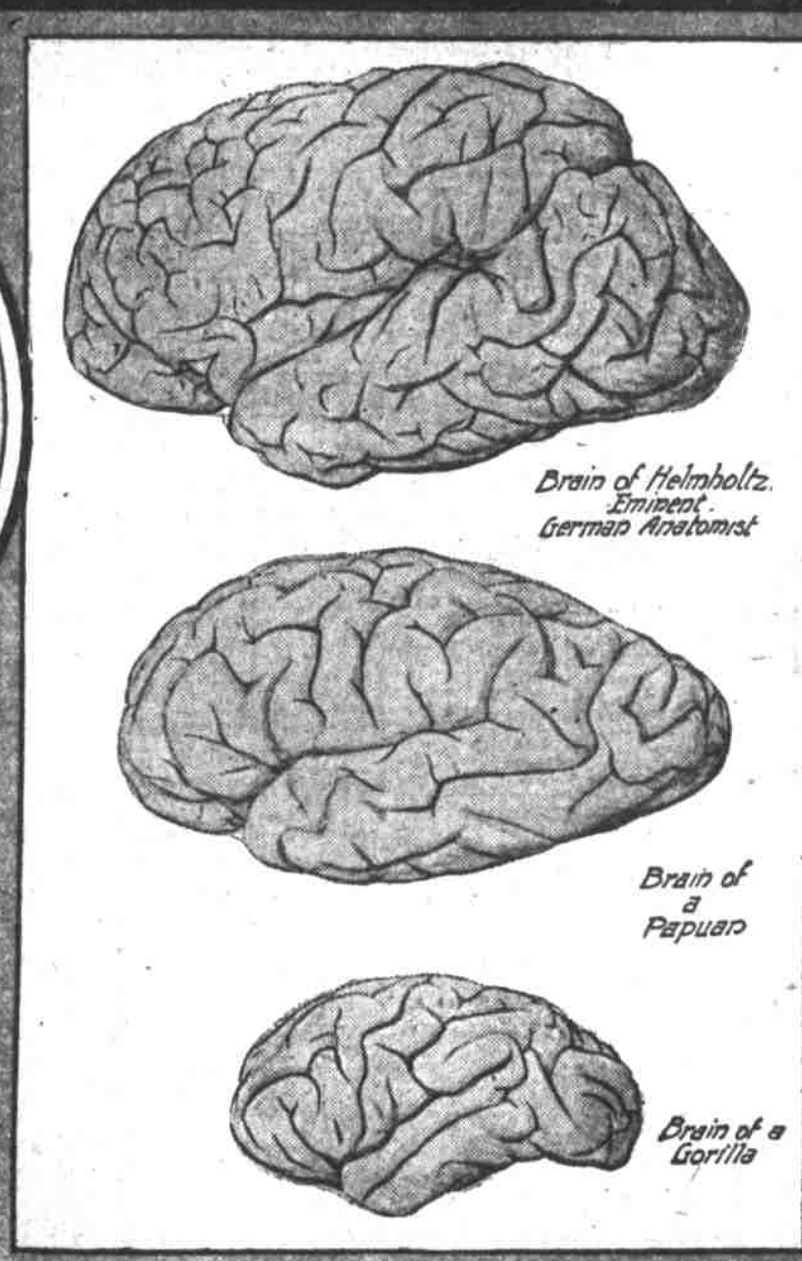
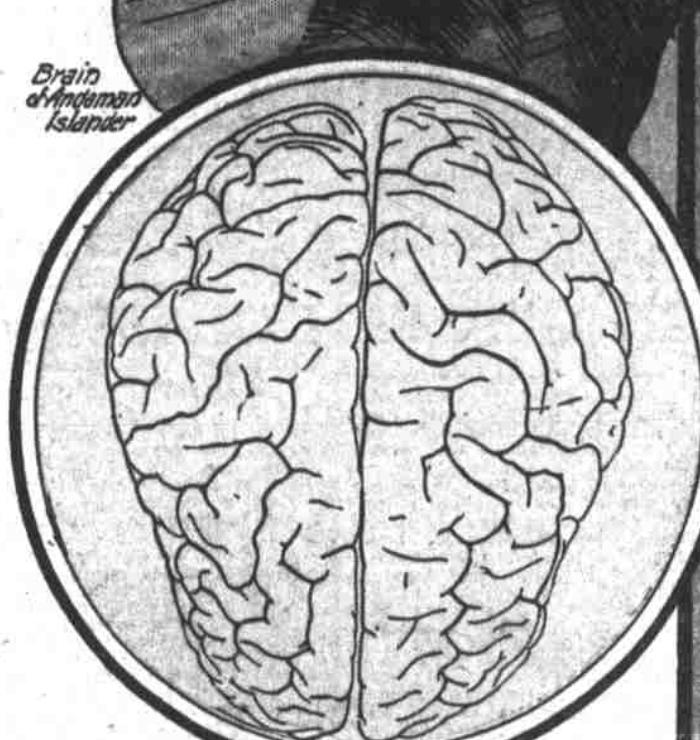
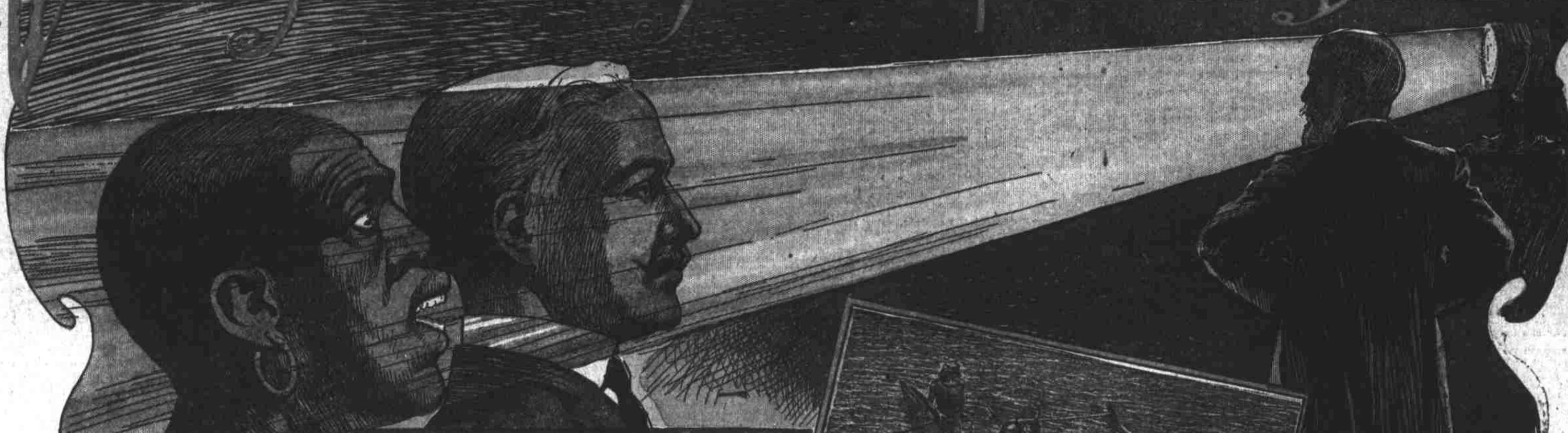


PORTLAND, OREGON, SUNDAY MORNING, JUNE 14, 1908

WHEN the SEARCHLIGHT of SCIENCE is TURNED on the BRAIN.



Research Now Going On Expected to Explain Many Mysteries.

IN ALL the researches of patient science there is none today, more interesting or more promising of startling results than the study of the human brain.

Suppose that you, civilized Anglo-Saxon, were to do what many thousands of your kind have done before you—wander off, like Kipling's Man Who Was a King, or like Kim's vanished Celtic father, and were to lose yourself amid the hordes of a lesser race.

And suppose among those Papuans, or Zulus, or Andamanese you were to perish again as thousands of your kind have done.

Would you succeed in obliterating all trace of your superiority to the savages around you, even though your white body were cast into the sea and the fishes of it had parted bone from bone?

Not so long as the new science of the study of the brain could find, intact in the skull, the two lobes which, inherited from the long generations of your forefathers, gave birth to every thought and directed every action.

With the skull gone, with nothing to analyze but that handful of convoluted matter, gray and white, the science which reached its development into accuracy with Dr. Edward Anthony Spitzka's "Study of the Brains of Six Eminent Scientists and Scholars" would still have been able to declare:

"This man was neither Papuan nor Andamanese. He was made to think and know and live upon a scale such as those primitive aborigines can never hope to attain. He was probably a white man, skilled as clerk, or mechanic, fit to vote and participate in the guidance of a mighty nation; fit to live on terms of absolute political equality with the leaders of the civilized world."

STUDY of the brain, so recent and yet so advanced, has gone now even farther in its marvelous insight.

Professor Spitzka, with the brains of Andamanese and Eskimos, Papuans and Zulus, has fixed the intellectual status of their owners with assured positiveness on the evidence of the brain alone, and in defiance of con-

trary opinions preconceived by himself as well as by others.

And the mute evidence of the dead brains has been proved to speak more fully and truly to the eye of science than the living men were able to speak to the untrained gaze of scores of superficial observers.

The Eskimos and the Andamanese, so long believed to be of a hopelessly inferior race, have been compared with the Papuans as well as with the great-brained Caucasian. And, while the Papuan vanishes as a type for comparison, the proud Caucasian finds small superiority on which to plume his vanity.

In the East Indies, on the island of New Guinea, dwell the Papuans, long notorious as implacable headhunters, always relegated to the lowest level of human intelligence—relegated to a level so low that anthropology appraised them very highly as being one of the nearest survivals showing, in brutish instincts and lack of mental force, man's kinship with the primal ape.

In the Indian ocean, off the coast of Burma, lie the Andaman islands—the North, Middle and South Andamans—whose aborigines, not so well known to science, were famed as being upon a scale even lower than that of the bestial Papuans.

DWARFS SEEMED LIKE SIMIANS

Dwarfs in body as well as mind, they were reputed to promise impressive proof of the nearness of man's simian progenitors—proof even more convincing than that afforded by the traditional Papuan.

Afar in the frozen North, in Greenland and in Labrador, dwell the Eskimos, until recently sealed almost hermetically from relations with their species, and until recently believed to be among the most limited, mentally, of all races making pretense to the intelligence of man.

When, in making the original report of his studies of the human brain, Professor Spitzka presented his observations upon the brain of the Papuan in comparison with the brains of average and distinguished Caucasians, the results of the new science of the brain had no evidence to adduce in denial of the facts known to anthropology.

The older science had done its work thoroughly, and the faintly marked organ recorded,

with the fidelity of a relief map, the scant mental activities of a race whose homes are tree shelters as rude as those of prehistoric Pithecanthropus, and whose social amenities are raw murder and rank cannibalism. Pithecanthropus intervened somewhere between the Papuan and the gorilla.

"The world had an idea," said Professor Spitzka, in his laboratory, recently, "that the Andamanese were a wholly primitive and savage race, so long isolated from the progressive branches of the human species that they have remained absolutely uncultured and uncouth."

"Such few skulls as reached museums showed small capacity, apparently about 1250 centimeters, as compared with the brain of the average white man, which weighs 1500 on the average." Professor Spitzka had been studying the brain of an Andaman islander, the only one, so far as known, to be presented for the investigation of modern science.

"The Andamanese were supposed to be more or less of the simian type. There were, indeed, certain skeletal features which went far to bear out the popular impression."

"The skull, for example, was small, round and notable for prominent jaw. It was the chief distinction of the Andamanese that the broad but small skull was associated with dwarf stature. There was another suggestion of the ape in the relation between the lumbar, or small of the back, in the region of the kidneys, and the rest of the vertebral column."

"Nevertheless, although the brain is small, some forty-four ounces, as compared with the white brain of forty-nine or fifty ounces, it was important to note that the stature is dwarfed and the body weight small. The Andamanese brain is not out of proportion to the body, even when judged by the standards of the white man."

"The cranial capacity of the Andamanese specimen I examined proved to be 1260 cubic

centimeters, against the 1500 of the white; and the average Andamanese brain weight is between 1125 and 1150 grammes, which does not depart much from what the white brain would be in proportion to the white body weight. Then, too, certain features of the brain of this native of the Andaman islands indicate a good share of manual skill, of dexterity in fashioning implements, and, possibly, more or less artistic endowment."

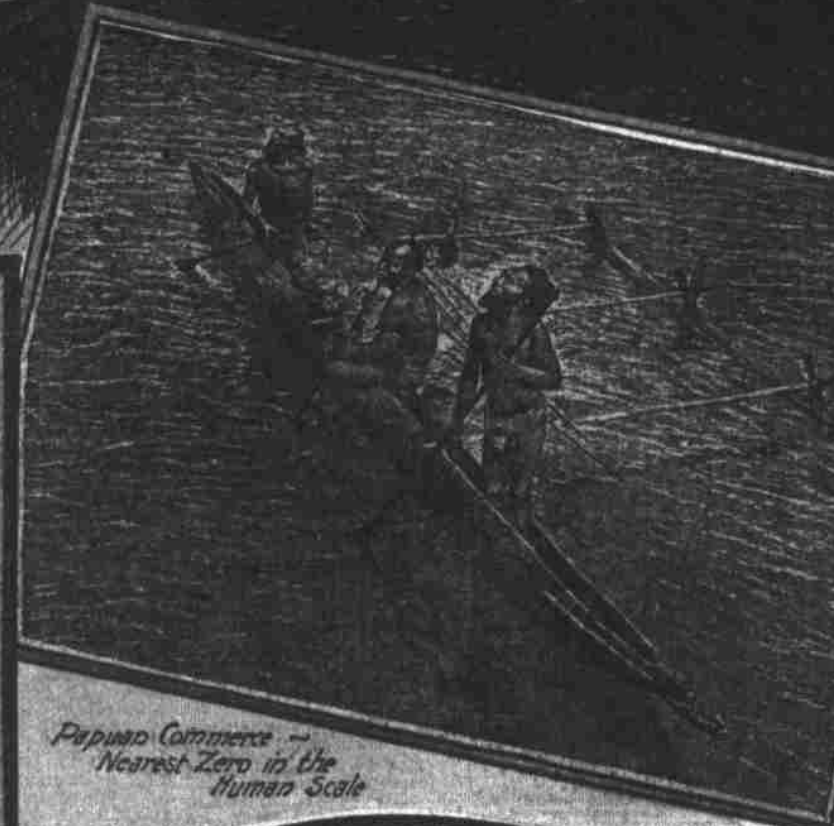
Latest accounts of the Andamanese, especially the narrative of C. Boden Kloss, which describes in detail the cruise of the ship Terra-pin in the neighborhood of the Andaman and Nicobar islands, amply corroborate the deductions made by Professor Spitzka from the dead yet speaking brain.

The Andamanese live in well-thatched huts, manufacture their own weapons of war and hunting, weave baskets and nets, make canoes and possess a language that has rather an intricate grammar. They are potters in a rude way, poets in a rude way, artists in a rude way.

Their children are susceptible to education—as susceptible as white children, up to a certain stage; but there the budding intelligence stops.

Yet, strange to say, in their social relations, while they have no morals to speak of, the Andamanese have evolved, from their brain capacity for practical affairs, customs which many individuals of the proudest civilizations might well emulate.

Children are tenderly cared for and the aged are shown the utmost attention and re-



spect, while woman, who remains still a mere child-bearer and beast of burden in not a few communities reckoned civilized, finds her labors helpfully and willingly shared by the Andamanese man.

It would seem as though the study of the brain had arrived, at last, at that marvelous stage which, years ago, was reached by another science, where zoology, given the fragment of a bone, was able to reconstruct the whole vanished creature, even to the hair that covered it and the habitat in which it roamed.

In the hands of an exponent so versed as a Spitzka, given the brain of a man, and the life for which he is fitted—whether it be an ape-like fitting through the forest or the ordering of an encyclopedia—can be sketched as though a Du Chailhu had hunted with his tribe or a Roswell written his biography.

As with the Andamanese, so with the Eskimos.

"For a long time," remarked Professor Spitzka, "the Eskimos were regarded as a low, degraded race—savage, uncouth, bereft of morals. I have no patience with writers who still persist in calumniating them. I prefer to consider them a quick-witted, capable race, exhibiting remarkable aptitudes and, in general, possessing considerable intellectual power."

"The whole brain, contrary to preconceived notions, is large and finely constructed. The brain of Kishu, chief of his tribe, brought to New York some years ago by Lieutenant Peary, is of a kind that any leader of men, or any philosopher, might be proud to possess."

RACES ARE BLENDING

"A mixture of Eskimo and white blood is constantly going on in the various camps, and this absorption of the race may eventually be a beneficial one; for the energy and motility of the white pioneer settlers can be improved by the addition of the patience, gentleness, devotion, honesty and skill so characteristic of the Eskimo."

But how does the scientist, you ask, penetrate the mystery of the brain-Sphinx; how does he unravel the bewildering tangle of nerve fibers and interpret the mysterious hieroglyphics of the fissures and convolutions?

What is the method pursued by which nature is made to reveal her most mysterious and most cherished of secrets? How are human brains studied?

What is the difference between the brains of the smallest animals and man, the differentiation between men of great intellectual powers and ordinary people? What marks the brain of a genius from the brain of a fool?

Beginning with the time the brain, soft and gelatinous, is taken from the head of the dead, the study begins. "One can make a superficial study in three months," declared Dr. Spitzka, "and can continue study indefinitely—throughout a lifetime."

Were you to visit the laboratory of Dr. Spitzka, at Jefferson College, Philadelphia, you would see large glass jars, filled with a transparent liquid, containing brains of various sizes, lying on wads of cotton.

There are brains of gorillas, apes, cats and unborn children. For, mark you, the study of the human brain does not begin with that of man, but with that of the lamprey; and the status of a great man is often gauged by a comparison of his brain with that of a Papuan or gorilla.

In those glass jars lie secrets as baffling as those of the ancient Sphinx, verily the secrets.

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