

On density differences of some parts of body of men living on hypsometrically contrasting tectonic blocks

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In microgravity conditions in cosmos (above the Earth's surface 100 and more km) man diminishes density of its bones losing Ca. This phenomenon appears instantaneously after arriving man in orbit. If an abrupt hundred km vertical change produces very sharp and prompt result then a smaller vertical difference in terrestrial habitation (1 to 5 km) but during thousand and thousand years should have some steady and noticeable results. Let us compare some characteristics of man living in two tectonic segments: the higher eastern and lower western hemispheres; in two tectonic sectors: the lower Eurasian and higher Asian sectors; in two tectonic granules of Africa: Pygmy of the Congolese lowlands and Bushman of the South-African highlands. Polynesians of Pacific and Indians of America (the western hemisphere) have on average higher the Rohrer's index (the ratio of body weight to the cube of its height) than population of the eastern hemisphere. A calf of a Polynesian is 25% longer in circumference than that of Hottentot. Hand contraction of a Polynesian (on average) is stronger than that of a Breton fisherman. Crania of the Changos - past Indians of the Atakama desert (a very low part of the American continent) - are very strong, with thick-bones and with cartilage joining skull bones (thickness of skull bones is also a characteristic of other Indians). So, if an astronaut above loses his calcium, an Indian below acquires additional calcium for his bones. Composition and quantity of human hairs characteristically changes from uplifted (+) to subsided (-) blocks. Negroids and mongoloids (+) are not so hairy and always black-haired (even children). Europeoids and australoids (only children) (-) are often brown haired and blond and typically well-hairy, shaggy. Some Polynesians are light haired. Metal content in head hairs of the former USSR population of the lower Eurasian sector (Russians, Tadjiks, Eskimo -notwithstanding races) differs from that of the neighboring upper Asian sector (various mongoloids). Chemical analyses of 2117 hair samples show that Fe content of the former (men and women) is higher than of the latter (Mn behaves inversely). Especially indicative is the ratio Fe/Mn. So, at the lower sector hairs are more ferruginous (iron-rich) or denser. Has it some relation with their lighter color?(iron oxides are brownish, manganese oxides are black). Bones of people of the Eurasian sector (-) are more mineralized than that of the Asian sector (+) (data for the former USSR). In Africa Pygmies of the Congolese lowlands are muscular and rough, more hairy and short-headed (more europeoid type) than Bushmen of the southern uplands - less hairy, more long-headed and not so strongly built. It is characteristic that a part of the muscular tissue of Bush-

men is replaced by fat. A fat belt of men and steatopygie (sticking out hind part) of women are well known. Hundreds of thousand of years of habitation in differing tectonic (hypsometric) conditions made these two under-sized people so different. For future, it is worthwhile to study not only bones and fleshes of astronauts, but also behavior of their hair cover: changes in mineralization and frequency of shaving.