

Paleopathology is a science located at the intersection of medicine, anthropology, ecology and history. It studies the diseases of ancient people whose traces are preserved on their bone remains, and thanks to which it is possible to assume the probabilities of certain environmental factors that could affect the life and health of the population. For example, K. Dominic believed that periodontal disease is a common marker of adverse environmental conditions, i.e. periodontal disease he defined as an adaptation disease associated with the reactions of the body.

It should be noted that the theoretical basis of the ecological approach in paleoanthropology is the concept of stress. Stress, in the case of the study of human skeletal material, is interpreted as the body's response to environmental factors, which can be identified during the morphological studies of the skeleton. The concept of stress examines issues of imbalance in the interaction of the organism and the environment, taking note to the "fee" for adaptation and its limitations. According to A. Goodman, stress indicators can be divided into three groups: cumulative or generalized stress (reflect the long-term effects of stress: the structure of mortality, variability of body length and massiveness in different age and gender groups); episodic stress (reflecting the periodic effects of stress: Harris lines (growth arrest), enamel hypoplasia, microdefects of enamel and dentin); associated with specific diseases (injuries, degenerative pathologies, evidence of infectious diseases and malnutrition). For example, in the 11–15th centuries Rus' due to climatic and socio-political factors was famine. Population sharply depopulation account of hunger and epidemics. Lack of food, weakening of immunity due to starvation led to epidemics of typhoid, scurvy, dysentery. However, compared to other territorial groups of the Eastern Slavs, O. Emel-yanchik characterizes the demographic situation in the study area of the Northern Belarus (the Polatsk land) as relatively prosperous. The group of stress indicators associated with specific diseases includes Cribrorbitalia. It is hyperostose changes in the upper inner region of the orbits, developing as a result of anemia, one of the main causes of which may be malnutrition. The frequency of occurrence of cribrorbitalia is a kind of generalizing indicator of the health and adaptive status of the ancient population. For the rural population of the Polatsk lived in the 11–13 centuries, is typical a low occurrence of the characteristic cribrorbitalia (15.7% among adults and 50% among children). It was also noted that the frequency of occurrence of this trait in women is two times higher than in men, which indicates differences in the ability of bone remodeling, healing of pathologies that developed in early childhood.

Another branch of paleopathology is the study of infectious diseases in paleopopulations. These diseases could acquire the scale of epidemics, which was due to the high population size or high levels of unsanitary conditions. Such diseases include leprosy, tuberculosis, syphilis, etc. There were also so-called non-specific infectious diseases - sinusitis, periostitis, osteomyelitis, etc.

Based on the analysis of bone remains, it is possible to judge the probability of the influence of certain environmental factors on the life and health of a population.

URBANIZATION AND ITS IMPACT ON SOCIO-ECOLOGICAL SPHERE OF LIFE. CITY ECOLOGY

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The city is a powerful consumer of matter, energy, information that comes from the outside. It is a source of emissions that adversely affect the ecological state of the planet. The increase in the population of cities leads to an increase in environmental pollution and the emergence of sociological problems.

Keywords: urbanization, biosphere, pesticides, preservatives, migration, subcultures.

The increase in the population of cities leads to an increase in consumer demand for certain food products, the production of which consumes a large amount of fuel, the emissions of which pollute the environment. In addition, significant water resources are spent, forests are cut down to expand cities. People no longer need to plant a vegetable garden, and most buy products in stores or on the market, and it is dangerous for their organisms, because these products do not have a large amount of vitamins and minerals, because the same vegetables are processed with pesticides and preservatives. The growth of the urban population leads to an increase in the number of cars. Exhaust gases have a detrimental effect on the human body, causing various diseases of the upper respiratory tract. Toxic substances contained in these gases lead to plant death, which leads to changes in the composition of precipitation and soil pollution.

The city is not only a large gathering of people, but also a concentration of social problems. Sociologists believe that the larger the city, the more acute the problem, wider their range and more difficult to solve. Among the sociological problems, the humiliation of the role of a person is particularly highlighted: not a city for a person, but a person, or rather labor resources, for a city; migration and an unhealthy lifestyle. In this regard, the number of dysfunctional families, the reluctance of young people to engage in physical labor, loneliness, the spread of mass subcultures increases. Economic inequality is more pronounced, which increases the aggressiveness of the lower strata of the population. Of course, urbanization reveals excellent opportunities for training of young people: a large number of groups, workshops, events. In addition, the number of people involved in science is increasing. However, as we have noted before, technological progress has a detrimental impact on the environmental situation on Earth, which can ultimately lead to the death of mankind. The ecological balance of the urban environment, according to many experts and scientists, will be more stable while maintaining: – a minimum of species, the simplest abiotic formations in the ecosystem; – the optimal state of environmental components; species diversity; – the balance between intensively and extensively exploited areas. All environmental conditions necessary for human life play an equal role, and only their optimal combination ensures prosperity, and not compliance with environmental parameters, leads to the inevitable extinction of living organisms.

Thus, the future of our cities, countries and our planet depends on what steps we take now. The concept of sustainable development can help us in this. The economic component implies the optimal use of limited resources and the use of environmentally friendly – natural, energy, and material-saving technologies, including the extraction and processing of raw materials, the creation of environmentally acceptable products, minimization, processing and destruction of waste. The social component of sustainable development is focused on the individual and is aimed at maintaining the stability of social and cultural systems, including the reduction of the number of destructive conflicts between people. From an environmental point of view, sustainable development must ensure the integrity of biological and physical natural systems. Of particular importance is the viability of ecosystems on which the global stability of the entire biosphere depends.

BIBLIOGRAPHY

1. *Prokhorov, A. M.* Great Soviet encyclopedia. – 3rd ed. – M., 1977. – Vol. 27. – p. 72–74.
2. *Stepanovskikh, S.* Ecology: textbook for universities. – Moscow: UNITY-DANA, 2001. – p. 453 – 482.
3. *Hatuntsev, J. L.* Ecology and environmental security: a textbook for students in higher. PED. studies'. institutions'. – M.: publishing center "Academy", 2002. – p. 138–176.

ENVIRONMENTAL SOCIAL ADVERTISING

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In the modern world, environmental problems are the most urgent, therefore more and more people are becoming concerned for the future of our planet. Many of these people are uniting in social groups and organizations. Their goal is to achieve the solution (or prevention) to environmental problems in different ways. One of them is environmental social advertising [1].

Keywords: environmental problems, environmental social advertising.

Implementation methods of environmental problems:

- posters;
- billboards;
- flyers;
- symbols on consumer goods;
- graffiti;
- comics;
- photograph;
- videos.

The major environmental problems are the pollution of air basin, ozone layer depletion, the pollution of World Ocean, the depletion of freshwater, the destruction of plants and animals species, the depletion of natural resources, and the disfigurement of natural landscapes [3].