

## **BOOK REVIEW**

### **Productive Forces of Design: The Basis of Post-Industrial Development**

**Author:** Vladimir Stokov (Doctor of Technical Sciences, Center Productive Forces of Intellectual Work, Supervisor of Studies, Moscow, Russia)

In the presented monograph, the author develops the main provisions of the classical school of economics, such as: the wealth of a nation (products of labor) creates material production, the source of wealth is labor, labor creates value of a product, development is caused by the development of productive forces, etc.

The author considers the goals of post-industrial development to create and increase the wealth of a country by designing and producing products that meet the country's strategic needs. Products that meet the country's strategic needs are designed and manufactured in the material sector.

The author has developed the concept of the productive forces of computer-aided design, representing a set of designers (constructors, analysts, technologists) and computer-aided design means that are capable of fulfilling the goals of post-industrial development. The productive forces of computer design have the ability to a) design digital models of intermediate (parts, units, assemblies) and final products, b) carry out structural analysis, c) develop the production technology, d) design composite materials with the required parameters of consumer functions.

The author showed that the computerization of the design led to an instantaneous exchange of information and the replacement of tons of paper design documentation with a single flash disk. Computerization creates the possibility of achieving the age-old dream of mankind: designing products with program management that meets the needs without human participation.

The monograph analyzes fundamental changes in the model of the productive forces of production developed by K. Marx. The tools of labor were universal CNC machines that replaced the working machine.

An international organization of design, carried out on the principles of universalization, innovation, and optimization, leads to the international division of the designer's mental labor in stages and objects and the division in objects production capital of individual countries and regions. The divided labor of the designer and the divided production capital carries out the design of stages and varieties and the production of varieties of intermediate products that are carriers of intellectual labor property and have the required consumer functions and the required parameters.

International cooperation of design organizations and industries of individual countries and regions leads to the formation of families of international design and production, producing parametric and functional-parametric varieties of types of final products, carriers of intellectual labor property, satisfying functional and parametric requirements. Competition between families determines the development of industry in the world.

It should be noted that the provisions of the monograph are illustrated by confirming examples.

The costs of production and the cost of the product are determined. The labor nature of cost is shown, which includes the cost of consumed living physical (where it is used) and mental work, consumed materials, intangible assets, the cost of consumed materialized labor expressed by the wear of tools of design and production, profit.

The author proposed a mechanism for the development of the productive forces of design and production through the renewal of intellectual property and the accumulation of capital.

### **Professor Grigory Semenovich Hulap**

Doctor of Technical Sciences

Academician of the Russian Academy of Natural Sciences