

might be called a culture-complex unit. The oldest clusters of human activities, of which we have definite knowledge are the lithic and fire complexes; the lithic complex was superseded in part and supplemented by the use of such organic materials as bone, ivory, and reindeer horn, which characterized the game-animal complex.

In a comparative study of the industrial remains of these various periods there are certain broad distinctions to be drawn. Eolithic industry consisted largely of improvisations - of primary tools or implements such as the hammerstone and the flint chip with utilizable edge or point. Secondary tools were few and simple, consisting largely of artificial chips; during the Lower Paleolithic period, the number of secondary tools was increased by the addition of the cleaver, a pointed implement chipped on both faces. A primary tool is one ready to hand - furnished by nature; a secondary tool is one which requires the use of a tool in its manufacture; tertiary tools are those, which in their shaping require the use of primary and secondary tools and whose ultimate purpose is not the shaping of implements.

The Neandertalians of the Middle Paleolithic Period made no great advances over their predecessors. They possessed an improved technique, which is seen in the character of their nuclei and well formed scrapers and points with carefully retouched margins; but so far as can be ascertained, they did not go beyond the making of secondary tools - that is to say, their secondary tools served directly an ultimate purpose, were not used for the manufacture of tertiary tools. The technical processes from Pliocene times to the close of the Middle Paleolithic Period (well along toward the close of the Pleistocene) remained relatively simple.

It was reserved for the Upper Paleolithic Cro-Magnon races to inaugurate a new era. This was made possible through improvement in the preparation of nuclei, from which long slender blades could be struck. The next step was important additions to their stock of secondary tools (various forms of the graver, microliths, small knives and awls) which enabled them to make extended use of bone, ivory, and reindeer horn, leading to two capital results - the invention of a set of tertiary tools and the dawn of the fine arts.

Upper Paleolithic or Cro-Magnon culture was very early transformed through the addition of the secondary shaping tools produced from bladelike flint flakes without which it would not have been possible to make an array of tertiary tools, such as the bone needle, the javelin point of bone, ivory, or reindeer horn, the javelin shaft, the dart or javelin thrower, and the harpoon of reindeer horn; nor would the Cro-Magnons have been able to embellish their dart throwers and satisfy a rapidly developing artistic sense by producing various objects of art and of personal adornment.

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DOGS DECLARED DISEASE CARRIERS

Homes where the heart is opened to the dog may have the doors opened to diseases of many kinds, was the warning issued by Dr. Minas Joannides, of Minneapolis, Minn., at the American Medical Association meeting recently. Stressing the importance of treating the dog as a dog and not as a human being, Dr. Joannides explained that dogs may carry tuberculosis, diphtheria, scarlet fever, measles, smallpox and rabies. They are particularly the only primary host of tapeworm, and often carry fleas, ticks and lice.

"Don't allow your dog to sleep in your bed or eat off your plate," he advised. If a man likes his dog well enough to make a member of the family out of him, Dr. Joannides advised that he keep the animal clear and train him to avoid contact with infected materials.