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293. UNIT CORTICAL RESPONSES TO MONOCULAR LIGHT STIMULATION IN UNANESTHETIZED CATS.
David H. Hubel (intr. by D. McK. Rioch). Dept. of Neurophysiology, Walter Reed Army Inst. of Research, Washington, D. C. In mammals with binocular vision little is known about the site of convergence of sensory paths excited by the 2 eyes. In the course of microelectrode experiments in striate cortex of unanesthetized and unrestrained cats, studies have been made of unit responses to diffuse illumination of separate eyes. Only "on" and "off" units have been included in the present series: of these 57 have been observed. In all cases but one responses were obtained to illumination of only one of the two eyes (on units: crossed 17, uncrossed 9; off units: crossed 19, uncrossed 11). Thus for this class of units evidence was not seen to suggest extensive bilateral interaction. Furthermore, in most penetrations, units of both types (crossed and uncrossed) were found, and on 3 occasions it was possible to record from one unit of each type simultaneously. It would seem, then, that the visual cortex contains units responding only to ipsilateral stimulation and units responding only to contralateral stimulation, and that these are intermixed.