PHYSICAL ASPECTS OF THE ENVIRONMENT

1012 Binocular Vision in Light Adaptation and Dark Adaptation in Normal Subjects and Coal Miners. Dorothy A. Campbell, Renee Harrison, and Jean Vertigen. Brit. J. Ophthalmol. 35, 394-405, 484-495 (July, Aug. 1951).

The first part of the paper is devoted to establishing a norm with which to compare coal miners. The second part deals with 90 normal coal miners and 275 coal miners with nystagmus. The visual acuity of the normal miners was not so good as that of the non-mining controls, but only a few had large errors of refraction. In other functions there was little differences between the groups; in fact, adduction and stereoscopic vision were better in miners who had worked a long time underground. Nystagmatic miners had poorer stereoscopic vision than normal miners. The results obtained by the tests are shown in explanatory graphs and figures. The final suggestion is made that the level of illumination in coal mines should be at least 0.1 foot-candle to enable a man to use his binocular vision. More modern cap-lamps should be introduced, and efforts made to develop fluorescent strip lighting at the coal-face.

-- Cond. from Bull. Hyg.

1013 Fatigue in Manual Workers. J. J. Gillon Arch. maladies profess. 12, 666-671 (1951).

Fatigue in textile workers was estimated by (1) the average time, and (2) the variability in time required to perform a brief repetitive task hour by hour throughout an eight-hour shift. The mean time required was significantly lower at the 3rd and 4th hour than at hours 1 and 8, and histograms revealed a significantly smaller variation in the intermediate hours, indicating that the worker was becoming fatigued at the end of the shift. After the introduction of a rest period of 1 1/2 hours, differences in average times and scatter between 3rd and 8th hours were no longer significant. In a worker more than 60 years of age, the best performance occurred in the second hour, fatigue appeared at the 4th hour and was marked at the 8th hour.

-- Cond. from Bull. Hyg.

1014 Rheumatism in Miners. Part 2. X-ray Study. J. H. Kellgren and J. S. Lawrence. Brit. J. Ind. Med. 9, 197-207 (July 1952).

A clinical, radiological, and psychometric study was made of 84 miners and 111 other workers, all aged 40 to 50. The miners showed