tion,' 'invention,' the 'nature of art,' etc. Painting makes use of fixed colors. M. Favre believes that we may have also an art of colors in motion—a regulated art, not merely the agreeable play of colors as seen in electric fountains, pyrotechnics, ballets, etc.

Such an art would develop in two directions: The play of colors in space and the play of colors in time. As in sound, we would have differences of pitch, of intensity, of duration, of timbre. We would have also a 'melody' and a harmony of colors.

He finds the determination of the scale and the discovery of consonant and dissonant notes a difficult matter. Our lack of training is, he believes, responsible for our inability to judge accurately in such cases. Much would have to be determined arbitrarily as in the history of musical scales.

In the development of the music of colors he would make use of the *Leit-motif*, after the analogy of the music of Wagner.

It is only fair to say that M. Favre recognizes the fact that analogies may be used to excess.

Most of the points he makes are to be found in the article on 'Color Music,' by William Schooling, in the *Nineteenth Century*, Vol. 38. p. 125. M. Favre had discussed the subject still earlier in his *La Vérité*, 1889. His present work is a suggestion of problems and not their solution.

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MEMORY.

Experimentelle Untersuchungen über die Gedächtnissentwicklung bei Schulkinder. ALEXANDER NETSCHAJEFF. Zeitschr. für Psychologie u. Physiologie d. Sinnesorgane. Band 24, Heft 5. Pp. 321-351.

The investigation covered by this paper—an account of which Dr. Netschajeff gave at the recent meeting of the International Psychological Congress at Paris—was carried on during the past year in the schools of St. Petersburg. In all, 687 children—494 boys and 193 girls—ranging in age from 9 to 18 years, were tested. Six different schools were represented in the test: an elementary school for boys, an elementary school for girls, a Realschule for boys, a Gymnasium for girls, and a private institution for boys and one for girls. With one exception (a school of the older boys), all the tests were made in the early morning session, that the element of fatigue might be eliminated. Preliminary to the investigation, the eyes of the children were tested that they might be seated to the best advantage during the experiments.

Eight separate tests were made: In the first, twelve objects (newspaper, handkerchief, lantern, etc.) were shown the children. Each object was exposed for five seconds, and two seconds elapsed between the different objects exposed. At the conclusion of the test, the children were required to recall the names of the objects they had seen. In the second test, twelve sounds were produced (the tearing of a piece of silk, clapping of hands, note sounded on a trumpet, etc.). In the third test, twelve numbers were pronounced (27, 54, 76, 11, 69, 23, 71, 37, 83, 24, 95, and 48). In the fourth test twelve common words of three syllables with marked visual imagery were pronounced (koláska, wagon; ósero, ocean; etc.). The fifth, similar to the fourth, with twelve words of auditory imagery. The sixth test contained twelve three-syllable words with pronounced taste, temperature and pressure imagery. In the seventh, the words contained marked emotional associations, as *sabóta* (sorrow) and *ssomnénje* (doubt). In the eighth test the words were all of an abstract character, as *déjstvie* (activity) and *prosstranstivo* (space). The tests were all conducted in the manner of the first.

Dr. Netschajeff's conclusions, briefly summarized, are as follows: (1) Memory follows pretty closely age lines in its development. In general, there is increase in power to recall with advance in years, excepting, of course, the slight retardation which comes at the puberal period. (2) The character of the word has very much to do with the ability to recall. Boys, for example, have stronger memories for actual experiences, and girls the stronger memories for words and numbers. (3) There is marked parallelism in the memory for figures and abstract words. (4) Individual differences were most pronounced in the tests with words of a concrete and emotional character, and least with numbers. (5) The girls, with slight exceptions, exceed the boys in their ability to recall, the most marked sex-differences falling between the years from 11 to 14. (6) In subsequent tests with the same children Dr. Netschajeff found a rather high average of memories of the visual and motor types, and a rather low average for memories of the auditory type.

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Memory. By F. W. COLEGROVE. With an introduction by G. S. HALL. New York, Henry Holt & Co. Pp. 367.

The statement of President Hall in the introduction to the book is confirmed by further perusal: "Despite the many special labora-