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MUSIC.

Music: its Laws and Evolution. By Prof. Jules Combarieu. International Scientific Series. Pp. viii+334. (London: Kegan Paul, Trench, Trübner and Co., Ltd., 1910.) Price 5s.

THIS important work could only have been written by a musician who was acquainted with the history of music, and also had a considerable knowledge of sciences connected with music, such as mathematics, physics in relation to acoustics, physiology, psychology, and æsthetics. Almost every page shows the versatility of Prof. Combarieu in dealing with the various aspects of the subject, while his power of lucid description is conspicuous. There is also the graceful beauty of style peculiar to a Frenchman, and it has lost little or nothing in translation. The fundamental thesis of the book is that music is the art of thinking in sounds. According to the author, we can never hope to have an adequate conception of music unless we realise that it is a kind of intellectual activity associated with emotional states, but without those concepts that are the material of ordinary intellectual action. The study of acoustics, the study of sensations of tone, as was so fully carried out by Helmholtz in his first work, "Tonempfindungen," the study even of scales and major modes, are only to be regarded as contributions to a fuller understanding of music, although not a few writers, in dealing with these aspects of the subject, have deluded themselves with the notion that in so doing they were explaining the true nature of music. All this may be readily granted; but in justice to the physiologist and psychologist, on whom Prof. Combarieu now and then comes down heavily, almost with scorn ill-concealed, it must be contended that the foundation of music does consist of sensations, varying in kind and quality. The composer thinks in sounds which are related to each other according to laws well known to the composer, and which he often transgresses, and the master musical mind has a kind of instinct that perceives more deeply the hidden meanings of the phenomena of the cosmos and the still more ill-defined region of human thought and feeling.

Prof. Combarieu develops these ideas in a remarkable order. Instead of beginning with what is comparatively simple, the nature of vibrations, the mathematical basis of scales, &c., and the functions of the ear and brain in relation to sensations of tone, and then working onwards to the compositions of such men as Bach, Handel, and Wagner, he proceeds in the reverse order. First, he analyses a melody, showing how much there is in it that cannot be expressed in words, such as sensations of mere pleasure, the expression of emotional states, and the arousing of sentiments, and even trains of thought and of reminiscence, in the mind, and he arrives at the

conclusion that music is, as it were, the dynamics of emotional life. He traces the evolution of music, the simple melody, the canon originating in religious feeling, the discovery of counterpoint, the use of rhythm as connected with bodily muscular movements, and the early relation of music to magic. Next he examines the development of music as an expression of the gradually increasing complexity of social life, in this way accounting for the origin of octaves, fifths, thirds, and other intervals, and the development of the major and minor modes. Muscular work requiring cooperation among many individuals taught men rhythm and musical time, and, by slow degrees, the various modes of the Greeks, Lydians, Phrygians, &c., reflected the social life and habits of the Greeks. A confluence of these minor modes has resulted in the minor mode of the present day. In modern music there is a fresher and greater use of the minor mode and of chromatic intervals, and there is less satisfaction merely with consonance, a development quite in keeping with the anarchical state of thought and feeling characteristic of the present day. The development of the orchestra from primitive instruments is one of the most remarkable phenomena in the evolution of music, and modern composers now strive to write something appropriate for each instrument.

Prof. Combarieu makes some excellent observations on Darwin's well-known opinions on the sexual relations of music. It is in most instances the language of love, but a sexual theory will not account for all music. The chapter on the physiology of music is the least satisfactory in this valuable book. We do not think the author does justice to the work of Helmholtz, probably because he fails to grasp the theory of the cochlea and its difficulties. We cannot follow him in his notion that, in some way or other, the cochlea can, in a reflex way, adapt itself to different combinations of tones. Here he merges into metaphysical discussions that are beside the question. The last chapter or section on music and living beings is rather fanciful in describing analogies between well-known physiological phenomena and music. The illustrations he gives are analogies and nothing more.

Prof. Combarieu's book is very suggestive. He takes a noble view of music, an art which does not seem even yet to have reached its climax. Great as are the works of Bach, Handel, Verdi, and Wagner, each reflecting in a subtle way their individual genius, moulded by the circumstances in which they lived and the influences that conspired to make them great musicians, there may yet be in store for the human race even greater works, which, in their turn, will reflect the more complex conditions of civilisation, in even higher planes of non-conceptual thought, and in deeper knowledge and feeling. One may also suppose that in this further evolution the organs of music, the ear and the brain, will become more complicated. The evolutionary process has not ended.

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