THE FOUNDATIONS OF MUSIC

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The foundations of music by Henry J. Watt

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THE

FOUNDATIONS OF MUSIC

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THESE WORKS ON SOUND AND ON MUSIC I DEDICATE TO MY WIFE AND HER ART

38

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PREFACE

In my previous volume *The Psychology of Sound* I made a minutely critical analysis of the elementary phenomena of sound and their simpler complexities, and I developed what seemed to me to be the only systematically true and promising theory of these phenomena. The work was necessarily addressed to those who are primarily interested in such a study, i.e. to psychologists and to physiologists. But I endeavoured to make the material as interesting to the theoretical musician as was possible under the circumstances.

Not that the latter has little interest in such fundamental analysis. On the contrary he is profoundly concerned to know how his art springs from its roots in mere sound and to see that the foundations ascribed to it are such as will evidently suffice to bear the whole superstructure of music. But the purely psychological or 'phenomenal' point of view could not but be new and strange to his mind, requiring some time to come into growth and fruition there. Once the essential nature of the position has been grasped, its spontaneous development is certain.

There is no inherent difficulty in ascribing volume and order to sounds or to tones. The difficulty springs merely from the unfamiliarity of the object in such connexions. At the present day conviction is much more easily secured for descriptions and theories of material objects-even although many of their students may never have come into contact with them at all-than it is for descriptions and theories of psychical objects, although their students are almost of necessity constantly face to face with them at any desired moment. Every one who takes any interest in music has had unlimited opportunities of turning his observations upon tones and their sequences and combinations. But in the great majority of cases he has seldom, if ever, looked studiously at pictures or models of the sensory organ of hearing and in all probability knows nothing of that organ by direct observation of it. But he will nevertheless drink in a description and theory of the material organ with avidity, while he will turn a bored and sceptical ear to a direct analysis and theory of tones, although for both purposes similar methods and explanations may have been used. The mere postulation of a material thing as the bearer of volumes and orders and their coincidences and overlappings seems to bring a special comfort to the mind.

PREFACE

It would be wrong to suggest that this scepticism is quite general in its scope. The artist is certainly clearly aware that what he usually judges and accepts or rejects is the direct phenomenal impression that is immediately before his mind's gaze. But when it comes to science and to theory, what he has learnt to crave for is in the main a materialistic exposition. The musician has long since accustomed himself to a theoretical diet of beats, partials, and material-mathematical expressions for intervals. Such things seem real and tangible, as it were. But, after all, they seem so in most cases only because they are more familiar.

Much of the difficulty is due also to a widespread shallow attitude towards any scientific aesthetics,-an attitude unfortunately greatly encouraged amongst musical theorists by Helmholtz's very unsatisfactory distinction between natural law and aesthetic principles. The mere existence and operation of personally subjective forces that affect our artistic judgments seem to convince so many people that no science of these judgments can be achieved. There is no disputing about tastes, they say. And if a body of critical knowledge can be extracted from established works of fine art, such rules are held to be merely the conventions of the ages that created them. The next genius that comes along may blow the whole system to the winds of oblivion. So it seems to those who are struck most of all by the innovations of each master and have not perhaps the patience to follow out the great purpose that is common to them all and that each merely carries on to finer and finer issues. But a great master is by no means an accident. He is one who, taking himself as a man amongst many, has learned how to construct an enduring object that is far more likely to arouse in others the joys of beauty he has felt and anticipated for them than are the works of lesser minds. His medium is the orderly realm of mind that he shares with his fellows. But its laws are not his creation: they are only his discovery. He has learnt to turn them to his will. The scientist who comes after him has, with his help, to formulate them in knowledge. That knowledge is the science of aesthetics.

In this volume I have sought more or less evenly to serve the purposes of both the psychologist and the musician. In order to make the work complete in itself up to a certain point I have traversed the ground covered in the psychological part of the earlier volume, omitting only those parts that are of little interest to the musician. All critical discussion has been passed over at this stage, so that the earlier part of

viii

PREFACE

this volume is more or less a careful and straightforward ('dogmatic') exposition of the fundamental notions of the psychology of tone. I think the musician should find it useful and helpful, as also will those who wish to have an exposition of the system without the technical discussions and criticisms. Those who are familiar with the previous volume will hardly find anything new before chapter IX (p. 55). Except in so far as they are interested in straightforward and logical exposition, they may begin the work at that point. The previous pages, however, are not in any sense a mere repetition of the earlier volume. They have been written entirely afresh. Only, as is after all inevitable, they are based on the same body of facts and notions as was the analytic psychological work of the earlier volume. I have not gone into any binaural or physiological problems this time.

The parts beyond chapter IX are addressed both to psychologists and to musicians. In the preface to the previous volume I said that my "theoretical constructions must be carried somewhat farther before they can be held to have passed fully over into the elements consciously used [and known] by productive musicians and appreciative listeners The working musician definitely takes over at a certain point the raw materials of his art from the real psychical processes of hearing, inaccessible in full to observation, and then proceeds to construct from them vast new realms without consulting anything that lies beyond the ken of observation." In this volume I think I have succeeded in carrying the psychological groundwork of the previous one forward so as to bridge the gulf between the psychological elements and processes of music on the one hand and on the other the sensory stuff and functions of music as the musician observes them. If my results and analysis are valid, the musician should now have a nearly complete and surc basis to work upon, that will give a scientific foundation to all his elementary observations and satisfy him with a sense of firm ground upon which to build.

The work of carrying the psychological analysis thus far has not been light. For as things have been till now, the probability of any one person being equally and fully conversant with the science of psychology and with musical history and theory was exceedingly small. I am aware of the great deficiencies in my own preparedness for the latter half of this great double task. I have tried to make up for want of experience by keeping closely in touch with the general trend of the judgments of ripened masters in musical theory of the empirical analytical order. I feel sure that results have offered themselves to my