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GUIDO ADLER'S "THE SCOPE, METHOD, AND AIM OF MUSICOLOGY" (1885): AN ENGLISH TRANSLATION WITH AN HISTORICO-ANALYTICAL COMMENTARY

by Erica Mugglestone

Introduction

In 1884 a triumvirate of Austro-German music historians, Friedrich Chrysander, Philipp Spitta, and Guido Adler, founded the first journal of musicology,¹ the newest fledgeling amongst the sciences,² namely, the *Vierteljahrsschrift für Musikwissenschaft* [Musicology Quarterly]. The first issue opened with a paper written by Adler, defining the scope, method and aim of the new science. This proved to be a potent formative influence on the establishment and development of the academic discipline of musicology in Europe and elsewhere, notably the United States of America, an influence that is strongly felt to the present day. Thus, in the *New Grove Dictionary of Music and Musicians* (1980: s.v. "Musicology," by Vincent Duckles, *et al.*), its importance is made evident in that it is summarised as the still extant model of musicology.

It is the purpose of this paper to render Adler's thought accessible to a wider readership by: 1) sketching the historical context in which the paper was written; 2) indicating its themes, metaphors and assumptions; in a sense, its metalanguage; 3) providing a translation of the text.

With regard to the first two of these aspects, commentary is directed solely at the paper in question. No attempt is made to determine Adler's overall philosophy of history or the development of his thought beyond 1885; such would be the aim of a comprehensive assessment of all his writings. And with respect to the third of the above aspects, in translating the text, care was taken to adhere as closely as possible to the original with regard to its semantic content. Thus, for example, the term *Tonkunst* is translated generally as 'tonal art', rather than applying the term 'music' in its stead, in order to retain, if at all possible, some of the connotations that are implicit in Adler's use of the term, as well as to prevent the imposition of an interpretation that might not be justified. However, with respect to Adler's syntax, it was deemed advisable to break down lengthy sentences and paragraphs into shorter units, and to utilise punctuation and other typographical formatting in order to clarify Adler's thought and promote ease of comprehension. Where necessary, notes elucidate problems encountered in translation. For purposes of clarification, occasionally the original German word is given in square brackets, as are also interpolations and alternative translations.

Historical Context

Guido Adler was born at Eibenschütz in Moravia (then still part of the Austro-Hungarian Empire, now known as Ivancice in Czechoslovakia) in 1855. Nine years later the family moved to Vienna after the death of his father, and in his teens he studied theory of music and composition under Bruckner and Dessoff at the Vienna Conservatory. He intended taking up a legal career, and studied law at the University of Vienna, even serving briefly at the Vienna Handelsgericht [Court of Trade or Commerce], but decided to pursue his interest in music history. In 1880 he was awarded a doctorate with a dissertation on the basic historical categories of Western liturgical music up to 1600. Two years later he completed his *Habilitation* [accreditation as a university lecturer] with a dissertation on the history of harmony.

In 1882 Adler was appointed as a *Privatdozent* [unsalaried lecturer] of music history at the University of Vienna, becoming a professor of music history at Prague in 1885, the year of publication of the paper in question. Three years later he returned to the University of Vienna as an *Ordinarius* [professor] of music history.³ Here he founded the Institute of Music History as a centre for musicological research, which became a model for the subsequent establishment of similar departments in other universities. He remained there until his retirement in 1927.

Throughout the nineteenth century, Germany and Austria had led the rest of Europe in establishing modern musical scholarship. As Hanslick's successor in Vienna, Adler occupied an important musical and academic position, and his career coincided with the most productive period in Austro-German musicology. Nevertheless, at the time of his appointment, within the Austro-German universities the history of music had lagged behind the other arts in becoming established as an entity independent of general historiography. Adler was very conscious of the fledgeling status of the discipline in academia, especially vis-à-vis the fine arts, and his paper must be read in terms of this specific context.⁴

Themes, Metaphors and Assumptions

The sequence of thought in Adler's paper may be summarised in terms of the three aspects of musicology named in its title, that is, its scope, method, and aim. He begins with a brief outline of the historical development of the science of music, from its inception as a self-conscious art, through successive stages—such as the pragmatics of abstracting rules of procedure in composition, or the development of notational symbols—to its modern culmination in a study of the works of art themselves.

Essentially Adler limits the study of music to that of music perceived as an art form; and as such it is confined to a study of European, Occidental music. The focus is on music viewed solely as a product. The methodology to be applied is that of analysis, and he studies the work of art in terms of notation, structure (form), and what he calls mood-substance/aesthetic content, in order to date it historically by means of the determination of its species. The dating of a work is necessary to

enable the researcher to place it within the historical process, and to determine the stylistic laws governing the creation of art.

From this Adler derives his dichotomous schematisation of the discipline of musicology, which he divides into an historical and a systematic section, each of which is discussed in terms of its subject-areas and its auxiliary sciences. The aim of musicological research he sums up in the closing motto as 'the discovery of truth and advancement of the beautiful'. It is also expressed as one of didactics, both in terms of the contemporary composer, the artiste and the audience.⁵ Indeed, Adler perceives the role of the musicologist as somewhat akin to that of a 'promoter and defender of the faith', a not unusual quasi-religious point of view in the nineteenth century, and in this respect he recalls to mind Schumann's imaginative concept of the *Dauidsbündler*.

Contrary to what is suggested in the article on musicology in the *New Grove Dictionary of Music and Musicians* (*ibid.*), Adler's style-orientated methodology is not a part of the "cultural-historical emphasis" that was "in part a protest against positivism", for it is essentially positivistic in outlook. Collingwood defines positivism as "philosophy acting in the service of natural science" (1980:126), and states that natural science, in the view of the positivists, "consisted of two things: first, ascertaining facts; secondly, framing laws." The former was "only the first stage of a process whose second stage was the discovery of laws", which were to be framed "through generalising from these facts by induction". The framing of laws was the goal of scientific endeavour. To quote Adler, the "actual focal point of all music-historical work" is the "investigation of the laws of art of different periods", this taking "the highest precedence"; and again, "to attain his main task, namely, the research of the laws of art of diverse periods and their organic combination and development, the historian of art utilises the same methodology as that of the investigator of nature; that is, by preference, the inductive method . . . the emphasis here lies in the analogy between the methodology of the science of art and that of the natural sciences".

In order to show how Adler's thinking was shaped by the natural sciences, both in his use of metaphor and as the paradigms of his method, it is as well to outline briefly developments in the natural sciences in the nineteenth century and to relate these to his text. Rapid strides were made especially in the sciences of geology, biology, and organic chemistry, and the first two are mentioned by Adler.

The comparative method, developed in comparative anatomical study, shaped that applied in other natural sciences.⁶ The development of the science of geology owed much to such a use made of palaeontological observation. In 1799 William Smith was digging canal beds in England, and noticed that the same type of fossils were to be found in the same type of rock strata. Using this knowledge, he devised a table of stratigraphic units, and built up a geologic map of England, Wales, and part of Scotland. At around the same time, Georges Cuvier and Alexandre Brongniart similarly observed that fossils are generally the

same in corresponding beds of rock, but differ fairly markedly from one bed to another. In this way they separated the Tertiary strata of north and central France into natural units and arranged these in chronological sequence. Palaeontology thus provided a vista into past aeons, becoming an ally not only of stratigraphy, but also contributing to biological research by validating the recognition of the antiquity of life on earth. In this way it supported the concept of evolution, which in its turn changed palaeontology from a practical rule-of-thumb technique into a fully-fledged science.

In establishing musicology as an academic discipline, Adler was attempting to make the study of the history of music scientific. In comparing his own book, *Der Stil in der Musik* (1911), with Parry's *Style in Musical Art*, published in the same year, he described Parry's approach as "primarily artistic", stating that he himself "stressed the scientific side" (1934:172). His own research experience led him to regard the palaeological dating of a work of art as the first step in musicological investigation. In a sense, this procedure is analogous to the palaeontological dating of rock strata; one is thus studying the musical fossil record for the same purpose, that of dating.

Moreover, the concept of a geological stratum is associated with another commonplace nineteenth century notion, derived from Johann Gottlieb Fichte's idealistic philosophy of history. Fichte claimed that each period of history has a character of its own which is concretely embodied in a single idea. In Fichte's hands, the Kantian notion that history is the unfolding of a 'natural' plan which is carried out through human agency, became a logical sequence of successive characteristic 'ideas', which, by virtue of their logic, provide the dynamics of cause and effect, and of historical processes, the sequence suggesting the periodisation of history.

As regards biology, the modern concept of species, which originated in the seventeenth century, was applied in particular by Linnaeus to classifying plants and animals. Early hypotheses tracing possible lines of continuous descent between species and genera finally flowered in the concept of natural evolution. The dynamics of evolution permeated the nineteenth century world-view, in history, in sociology, and above all, in biology. It is therefore not surprising that Adler's metaphorical language is rich in images of organic growth and decay, and that his concept of music history is evolutionist. His style-critical method begins with an anatomical dissection of a work of art in order to ascertain its species, and his framing of stylistic laws can, in a sense, be equated with determining the laws of musical 'natural selection'.⁷

Although Adler's views on the artist as creative genius 'building a temple in the grove', and on music as an art form, reflect standard nineteenth century aesthetic concepts, it should be noted that his empirical style-critical method owed much to contemporary art historical writings. As Kuhn states (*Encyclopaedia Britannica*, 14th ed., s.v. "Aesthetics"), in 1864 Hippolyte Taine "proposed that styles of art should be studied in the same way as the kinds of plants are studied by the botanist and as subject to evolutionary development." In Germany this approach was

adopted by such art historians as Burckhardt and Wölfflin. The history of styles in the visual arts came to be termed *Kunstwissenschaft* (the science of art), and was both historical and theoretical in approach. The discipline sought to grasp underlying trends and principles running through epochs, rather than studying individuals and their works. It has been pointed out that Adler showed a deep awareness of developments in the field of art history, regarding the sciences of art and music as sister sciences, so that to speak of a 'tonal art' instead of music was, in his view, both logical and justifiable.

THE SCOPE, METHOD AND AIM OF MUSICOLOGY

Guido Adler

Musiology originated simultaneously with the art of organising tones.⁸ As long as natural song breaks forth from the throat freely and without reflection; as long as the tonal products well up, unclear and unorganised, so long also there can be no question of a tonal art. Only in that moment when a tone is compared and measured according to its pitch—at first this is done by ear, then with instruments that measure pitch—; at that moment when one takes account of the organic relationships between several tones and tonal phrases bound into a unified whole, and the imagination organises their product in such a way that they may be assumed to be based on primitive-aesthetic norms, only then can one speak of a musical knowledge as well as an art of working with tonal material.

All peoples of whom it can be said that they have a tonal art, also have a tonal science, even if not always a developed musicological system. The more advanced the first, the more developed is the second. The tasks of musicology vary according to the state of development of the tonal art. In the beginning the science endeavours especially to determine, define and explain the tonal material. This accounts for the importance of the musical canon amongst the Greeks, that is, the teaching of the mathematical determination of intervals, and the ranking of *scientia musicae* with arithmetic, geometry, and astronomy by many mediaeval writers. Within a short time the demands [on the science] increase; music is classed amongst the liberal arts, and the young student of tonal art and tonal science is presented with a complex system of musical maxims which have been abstracted from particular tonal products. The symbols for tones are developed, and their pitch and duration are measured and regulated more accurately. Indeed, for a time tonal production is muzzled and curbed by these rules and measures, until it again paves for itself a pathway; and once more the demands on the science alter. It should clarify the relationship between musical art and the art of poetry, and should delimit the field appropriate to tonal art. The genuine, true artist carries on working unconcernedly; the scholar of art now confronts the investigation of the products of art. The modern science of

art will base its research above all on the works of art. Which are then those factors or features which will guide the scientific examination of a tonal work?

If a work of art is under consideration, it must first of all be defined palaeologically. If it is not written in our notation,⁹ it must be transcribed. Already in this process significant criteria for the determination of the time of origin of the work may be gained. Then the structural nature of the work of art is examined. We begin with the rhythmic features: has a time signature been affixed, and if so, which; which temporal relationships are to be found in the parts; how are these grouped and what are the characteristics of their periodic recurrence?¹⁰

One could just as well begin with tonality, namely, the tonal nature of individual voices and only then that of the whole—as was customary for a time in the Middle Ages, but is today, with justice, no longer the case. The individual parts are examined with respect to cadences, transitions, and accidentals, and placed in relation to the whole. Thereafter the polyphonic construction must be clarified: also the range [ambitus] and distribution of the voices; the imitation of themes and motives depending on their entries at different pitch-levels, and the different time-intervals of their succession; whether themes are augmented or diminished, inverted or placed in opposition to each other; further, the management of consonances and dissonances, their preparation and resolution or free entry. The way in which the individual voices move in terms of one another is then pursued; the relationship between main and subsidiary voices, the adoption of a *cantus firmus*, the way it is employed and broken down into segments, and the way in which the themes and motives are carried through, are considered and determined.

Should the composition have a text, then this is critically examined; at first only as poetry, then in reference to the way it has been set or combined with the melody. Here one must go into the accentuation, and the prosodic characteristics in relation to the musical-rhythmic elements. The treatment of the text offers further important clues with respect to the evaluation of the work.

If the composition is purely instrumental, then the way in which the instrument or instruments are handled, must be gone into. The instrumentation must be examined, that is, the way in which the instrumental sound-groups and -bodies¹¹ are united and separated, contrasted and blended. Together with this, the realisation [*Ausführung*]¹²—better still, the pragmatics involved in performance or realisation [*Aus- oder Aufführbarkeit*]¹³—can be considered; the fingering on the instruments to be used in this instance, the manner of performance, the intensity of volume of sound at different points, the distribution of the [instrumental] voice types, etc.

When the main features are established and special particulars have been ascertained according to the individual nature of the work, then one can address the question, to which species¹² of art does the piece belong, namely, to which species according to the perception of the period when the work of art originated, and in our view. With this we approach—for

2. us—the important definitive decision about the period of origin of the work, and here we can distinguish:

(a) the period in which it was created; either the epoch generally, or more specifically the school, or finally it can be attributed directly to a particular artist, and in the latter case further to a particular creative period of the composer [*des Tonsetzers oder Tondichters*].¹³ The older the work, the harder it is to affix an altogether accurate date to the period of origin.

(b) it can also happen that a work originated at a time to which, according to its nature, it no longer belongs; it can bear the stamp of a past artistic epoch. One can compare the courses of artistic epochs with geological strata, even if only on a very diminished scale. Just as the earth's crust was fashioned out of formations belonging to different epochs, so also the total picture of an age reveals a distinctive artistic character. In such a case we must distinguish, therefore, between the period of actual origin and that to which the work belongs by its nature. And even then, one will notice particular features in the work which betray that, despite the outward analogous characteristics, it yet does not wholly correspond to the spirit of the age to which it belongs by virtue of its structure and texture. One says then that the work is created in the manner of this or that period or school, this or that composer.¹⁴

3. The determination of the mood-substance [*des Stimmungsgehaltes*] the aesthetic content, may be seen as the touchstone of critical reflection. Frequently, of course, this counts as the sole point, the alpha and omega of critical analysis. Scientifically speaking, this aspect can be perceived only when the other determinations have been made. Here too one attempts to grasp first of all the specifically musical mood-substance. However, in most cases it will be a futile effort to try to translate this into words, and even when a poetic subject, whether as text or only as idea, served the composer [*Tondichter*] as the basis of the work of art, it would be a courageous undertaking to articulate scientifically the analogy, as regards their identity and their differences, between the mood-substances appropriate to both parts, i.e., word and tone. This is likely to be relatively easier in musical-dramatic works in which the action offers a firmer basis [for such apperception].

These are, in general outline, the objects of investigation in musicological research. From this the system of this science is to be constructed. It consequently subdivides¹⁵ into an historic and a systematic section. The history of music organises itself¹⁶ according to epochs—large and small—or according to peoples, territories,¹⁷ regions, cities, and schools of art; the summing-up is either chronological or regional, or chronological and regional. In the final and highest instance, however, the history of music looks at artistic creations as such, in their mutual concatenation and their reciprocal influence, without special consideration given to the life and effect of individual artists who have participated in this steady development.

The subjects of the historical section are as follows:

(1) the knowledge of notations. As already mentioned, the musical symbols stand in intimate relation to the art itself. The mediaeval notation symbols especially, determine and stipulate the production, so that one can already achieve an historical categorisation—perhaps the chief—of European, Occidental music, according to the diversity of notational symbols, into the epoch of the neumes, the epoch of mensural notation, and that of metric denotation;¹⁸ a division that roughly approximates the subdivision into Roman, Gothic, and Renaissance epochs as applied in the field of architecture.

(2) the summing-up of historical groups [categories], usually called musical forms. The tonal products of a particular period mutually have, on the one hand, features in common, and on the other hand, different features which are suited to placing them in distinct categories. The motet, frottola, villanella, madrigal, praeambulum, ricercar, sonata, suite, symphony (in the modern sense), etc., belong, as regards their development, to specific periods, and in this way excellent insights [viewpoints] may be gained towards an overall [*übersichtlichen*] art-historical evaluation. It is probably not necessary to mention here how frequently names and terminology are arbitrarily shifted and misused.

(3) the investigation of the laws of art of different periods, which takes the highest precedence; this is the actual focal point of all music-historical work. The most satisfying task of the scholar of art is to demonstrate and establish how, proceeding from the beginnings of simple melody, the structure of works of art gradually grows; how, proceeding from the simplest thesis, the artistic norms latent in the tonal products become more and more complicated; how tonal systems pass away with disappearing cultures; how, little by little, a chain of cells attaches itself to a limb and so grows organically; how elements standing outside the mainstream of progressive development perish because they are not viable. One can say that the laws of art change with the generations; as manifold as the changes are, art attains different stages which, with reference to the beauty attainable within their limitations, cannot be overstepped.

In the explication of the laws of art of a particular period, one must distinguish between those principles that are discerned in the practice of art and those that are taught as theory, because the theoreticians, for the most part, only follow in the footsteps of history at a certain distance, and while life pulses on, they reflect on what is past. Only with regard to this aspect can the division into theoretical and practical music be approved. In the actual strict sense of the word, there is no such thing as theoretical music, but rather a theory of music. As theory is usually in conflict with contemporary practice, one hit upon the not very apt term 'theoretical music', to which many French music researchers in particular, cling still to this day.

It has seldom occurred that a theoretician has pulled ahead of history, and then it was usually a blunder which the art practices of the day

5. ignored. To single out but one instance: Hieronymus of Moravia wanted to introduce *musica colorata* in the second half of the thirteenth century, long before music was ready to take up chromaticism. As a result, the attempt remained isolated, and was, despite its ingeniousness, an impossible proposition. It may also happen that theory and practice are to be found united in one person. Then we must decide whether he really operates in the spirit of his age or in that of a past epoch. In the first instance, the task of investigating the laws of art of the period concerned is made easier; however, one must always, above all, retain the works of art themselves at the centre of investigation.

The explanation of the various ways in which art is practised, is intimately connected with these laws. Vocal and instrumental techniques have changed with the progress of art. On occasion the exercise of technique has acted as an influence on the production of art. This is particularly the case with instruments in vogue, which have even occasionally, on the one hand detracted from, or on the other hand extended, creative activity. Frequently works of art place on the performer demands to which he can do justice only after a long period of study. In the beginning the performing artistes let themselves be guided, in their rendering, generally by their instinct; gradually the interpretation becomes clearer and more established, and in this way a tradition develops. Performing artistes have taken a creative role, at a specific juncture, in the production of art, namely, with regard to the use of ornamentation. This feature owed its appearance to natural and unnatural impulses, and, in the seventeenth and first half of the eighteenth centuries, like a creeper or parasite, threatened to smother or deplete of nourishment the healthy tree.

The instrumental realisation of polyphonic compositions with different instruments, at the time of the flowering of instrumental music, was also generally left to the practising musicians, and the rules of instrumentation germinated in the ensuing usage. Intimately connected with the history of orchestration is the history of musical instruments as regards their construction and usage—a subsidiary sphere of the historical section of musicology.

A great number of auxiliary sciences are affiliated to this section of musicology:

- 6.
- (1) general history, with its ancillary sciences, palaeography, chronology, diplomatics, bibliography, library and archival knowledge; and in the field of musicology, musical palaeography and bibliography are especially important ancillary subject-areas;
 - (2) the history of literature, and philology, which are inextricably connected with music research, in the same way as in vocal works the musical tone is inseparable from the word;
 - (3) history of the mimetic arts (orchestics and dance), which are likewise organically linked with music; and finally,
 - (4) the biography of composers [*Tondichter*] as well as the statistics of musical associations and art institutions. In recent times biographical studies have disproportionately pushed their way into the fore-

6 front of scholarly attention and have even been regarded as musicology *κατ' ἐξογήν*,¹⁹ whereas they constitute in reality only an ancillary field of musicology—even though an important one, to be sure. In this field, besides the products of art of the composer in question, only those aspects should be examined which stand in a direct or indirect relationship to the artistic temperament [*Artung*]—a guideline observed by some excellent biographies. Such aspects include the physical nature of the artist, his education, the models which he studied and whose style he has absorbed, the influence of the environment on his artistic outlook, the artistic position he occupies, those events which have profoundly affected his emotional life, the way in which he composes, his attitude towards the other arts, as well as, finally, his ethical and cultural standpoints.

The second main subdivision in musicology is that of the systematic section. This rests on the historical section, and may be divided into three parts:

- (a) a music-theoretical section, which is really speculative,
- (b) a music-aesthetical section, and
- (c) a music-paedagogical section.

In this subdivision those laws of art which have emerged from the historical development as the highest—I say highest and not latest, as these two concepts do not always entirely coincide—are systematically organised, and are either:

- (a) clarified and founded as such, or
- (b) [viewed] with regard to the beautiful in art, the criteria of which are being determined, or finally
- (c) [explicated] with reference to a paedagogical-didactic purpose.

The objects of investigation of critical research determine here the subdivision into:

- (1) rhythm, that is, the summing-up and clarification of all the rules, norms and laws affecting the temporal properties of musical works; the absolute musical rhythm in relation to the dynamics of all bodies and the metre and prosody of languages.
- (2) harmony, that is, the summing-up and clarification of the tonal properties of successive tonal series, and contemporary ways of connecting tones and tonal progressions; the formation and foundation of the tone system, that is, the unified overview of the tonal material of each cultural epoch.
- (3) melody, that is, the results deriving from both of the aforementioned subdivisions yield the investigation of the internal relationships, the reciprocity of the rhythmic and harmonic elements of the works of art. One could call this section "Melik", which it has already sometimes been termed (even if not, to the best of my knowledge, with this precise signification). It explains the peculiarities of monophonic, homophonic and polyphonic music, and so attains, through the medium of thematic study—that is, the scientific investigation of the significance and rank of musical ideas in a work of art—the consideration of the so-called musical art forms, that is,

the abstractions from the various mono- and polyphonic tonal structures. "Melik" is either absolutely musical, or is connected with prosody and metre, in which case it extends the object of examination to diction.

The formation and foundation of the highest laws of art lead, of necessity, to the comparison of individual norms. Their evaluation and comparison lead, thus, to the field of aesthetics.* The elevation of specific principles and rules to the aforementioned height demands that the researcher occupy himself, on the one hand, with the works of art, and on the other hand, with the minds of the perceiving subjects. Two goals, therefore, confront the researcher, and to get to the bottom of their reciprocal relationships must be the ultimate aim of aesthetics. Above all, however, what is at stake is the recognition of the criteria that make a work of art; those features that characterise a work as an artistic product. Is every tonal product a work of art? Generally speaking, only those which bear the criteria of the beautiful in art in themselves are designated as works of art. Therefore the convenient question must be answered, what is the beautiful in music and how is this related to the general concept of the beautiful in art? Through this determination all tonal products in which these criteria are not demonstrable, are at the same time designated as inartistic.

One could pose the question, however, also in another way: must every work of art be beautiful? Are those tonal products which do not correspond to these criteria of the beautiful not also works of art? For example, the requiem litanies in parallel seconds and fourths—as they were customarily sung in Italy, particularly in the Ambrosian liturgy in Milan; are these only pathological manifestations of anguish and contrition, or are they already works of art? They are, to be sure, the latter, in the sense that a certain technical skill is required in order to perform them, but do they correspond as a result also to the demands of the beautiful in art?²⁰ These questions are of the greatest significance, not only for the determination of the beautiful in art, but also for other theses directly or indirectly connected therewith, which in total constitute that complex usually characterised as the aesthetics of tonal art.

Some of the most important points are here extracted:

- (a) origin and effect of music. Is the effect necessarily greater when the means of expression becomes richer and multifarious?
- (b) the relationship of tonal art to nature. Are there also tonal systems that are contrary to nature, as Goethe maintained?
- (c) the relationship of music to culture, climate, and the national economic relationships of a people; for, besides the purely musical factors, still others affect the progress of art outside of the specific constructional elements, the influences of which on the development of art cannot be overlooked.

* The expression "Philosophy of Music", used by Fetis to describe "the investigation of artistic products and their changes", suffices neither for historical nor for aesthetic musicology; this only mixes up the terms of different scientific fields.

(d) the subdivision of tonal art according to the nature of its origin, or the locality where it is practised, or the purposes which it serves; [for example], church, chamber, concert hall, theatre, opera, etc.

(e) the limits of tonal art with reference to its ability to express; the delimitation of sound materials that may be utilised, as opposed to other sounds or noise;²¹ those areas in which it is connected to or divorced from the other arts. Here we must also discuss the transitions into the amorphous and the fortuitous (according to Goethe's designation).

(f) the ethical effects of tonal art, as ethics stands in immediate relation to music, both according to the older as well as the more modern philosophers, whilst some speak of an ethical basis for musical feeling. Modern philosophers also pose the question concerning the position music takes in relation to metaphysics, which can be regarded as the touchstone of all these considerations.

Beside these scientific questions there are some musical issues of the day which disturb the souls of art-enthusiastic friends of music and art-hostile zealots, and cleave asunder large multitudes into enemy camps; as, for example, the musical tapeworm:²² "when did the apogee of religious tonal art occur, or what is genuine church music?" Furthermore, [there is the question of] the strife about rank between vocal and instrumental music, which was already stimulated by Plato and Aristotle; or the musico-political question: in the musical drama, does the word or the tone predominate, or does the action reign supreme? The settlement of these and similar issues arouses the interest of many who are otherwise indifferent, and the resolution of them lies latent in art and science.

As the third main subsection of the systematic subdivision we may name musical paedagogy and didactics. If the laws are established *in abstracto* and founded in the natural sciences, then they must be sifted and put together with a didactic purpose in mind. Accordingly, this provides the general rudiments of music, which comprises the basis of musical knowledge; for example, the structure of scales, the nature of intervals and various rhythms, etc.; a theory of harmony, that is, the tenets concerning the combination of harmonies; the teaching of counterpoint, that is, concerning the simultaneous or successive combination of two or more independent voices; a theory of composition; and furthermore the didactic methods used in vocal and instrumental training.

The series of disciplines named is not necessarily the only possible or even the best arrangement of the didactic section. For two centuries this hierarchy has been valid, and only in recent times does one regard the theory of harmony as superfluous, indeed, even as damaging. Even if these instances are accepted, the progress of the discipline would not be materially altered, as then the basic tenets would have to be subsumed under the general theory of music. A more exact organisation within the individual disciplines would seem, however, to be urgently required.**

** This subject will be treated more fully in a special paper.

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The relationship of this paedagogical subdivision to the abstract scientific one can be generally expressed as the system of didactics being satisfied to select the norms and rules necessary for learning the art, and to present the propositions laid down and established by the science, without going into research and deeper substantiation (generally based on the natural sciences). It teaches, for example, the prohibition of consecutive fifths when writing strictly to rule, but harmony seeks also to account for the grounds underlying this prohibition and enquires of history the period of its introduction, bringing into correlation with this prohibition the fact that at one time no one paid attention to this aspect—indeed, [which one may describe as] the downright primary harmonic way of combining sequences of fifths. It pursues the gradual limitation of the prohibition's application, and then, having resolved the preventient historical question, turns to the investigation of its connection with the physiological nature of the ear, considering the grounds—perhaps the dependence upon the alteration of the partials—and thus reaches a detailed determination as to which cases justify the use of the prohibition of consecutive fifths, and in which cases it is superfluous, or is not observed by more free-wheeling practice. In this way scientific research fashions the basis on which the discipline is taught.

A new and very rewarding adjacent field of study to the systematic subdivision is 'musicology', that is, comparative musicology. This takes as its task the comparing of tonal products, in particular the folk songs of various peoples, countries, and territories, with an ethnographic purpose in mind, grouping and ordering these according to the variety of [differences] in their characteristics.

The auxiliary sciences of systematic musicology are:

- acoustics with its associated field, mathematics;
- physiology, particularly in those areas concerning aural sensation;
- psychology, particularly in those areas concerning the mental conceptualisation of tones and interval relationships, and the practical counterpart thereof, namely, the theory of musical thinking, which may be regarded as a part of general logic;
- grammar, metre and poetics;
- and, as an ancillary field to the musical paedagogical subdivision, general paedagogics.

Manifold other areas of knowledge may also be touched upon, and stand partially in the interchange of ideas; areas which it is considered unnecessary to mention (see Table I).

M.

The methodology of musicological research depends on the nature of the subject under investigation. In palaeographical matters, the researcher applies every means usually characterised as a method of research in the historical auxiliary sciences. He follows all paths that the manuscript researcher and the palaeographer have levelled, but in the field of [musical] notation he must tread certain bypaths lying a little to one side of the broad mainstream. Here experience will be the teacher. In philological and literary historical matters, the music researcher utilises anew every pathway that the science in question has laid out. Here,

TABLE 1

In Tabular Form, an Overview of the Entire Construction* appears thus:**
MUSICOLOGY

I. HISTORICAL

(History of music according to epochs, peoples, empires, nations, regions, cities, schools of art, artists).

A. Musical palaeography (notations).	B. Basic historical categories (Grouping of musical forms).	C. Historical sequence of laws. 1. As they are presented in the works of art of every epoch. 2. As taught by the theoreticians of the age in question. 3. Ways of practising art.	D. History of musical instruments.
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Auxiliary sciences:

General History with Palaeography, Chronology, Diplomatics, Bibliography, Library and Archival Science, History of Literature and Philology, Liturgical History, History of Mimetic Arts and Dance, Biographies of composers, Statistics of musical associations, institutes and performances.

*** For purposes of comparison, the synoptic table according to Aristides Quintilianus, which contains the most comprehensive overview of the Greek system of musical didactics, is given.

SYSTEM OF MUSIC

I. ΘΕΩΡΗΤΙΚΟΝ (Theoretical or speculative section)

A. φυσικόν (Physical-scientific)

B. τεχνικόν (Special-technical)

a. ἀριθμητική
(Arithmetic)

b. φυσική
(Physics)

c. ἁρμονική
(Harmony)

d. ῥυθμική
(Rhythm)

e. μετρική
(Metrics)

II. SYSTEMATIC

(Establishing of the highest laws in the individual branches of tonal art).

A. Investigation and founding of these laws in:

1. Harmony (tonal).
2. Rhythm (temporal).
3. Melody

Coherence²⁵ of tonal & temporal.

B. Aesthetics of tonal art.

1. Comparison and evaluation of these laws and their relation to the perceiving subjects, with respect to the ascertaining of the criteria of the musically beautiful.
2. The complex of directly and indirectly related questions.

C. Musical paedagogics and didactics (The compilation of these laws with respect to teaching purposes).

1. Scales.
2. Theory of harmony.
3. Counterpoint.
4. Theory of composition.
5. Orchestration.
6. Vocal & instrumental teaching methods.

D. "Musicology" (Examination and comparison for ethnographic purposes).

Auxiliary sciences:

Acoustics and mathematics.
 Physiology (tone sensation).
 Psychology (tone perception, tone-judgement, tone-feeling).
 Logic (musical thinking).
 Grammar, metrics, and poetry.
 Paedagogics.
 Aesthetics, etc.

II. ΠΡΑΚΤΙΚΟΝ-ΠΑΙΔΕΤΤΙΚΟΝ (Didactic or practical section)

C. *χρηστικόν* (Theory of composition)

D. *έξαρτελετικόν* Performance praxis)

f. *μελοποιία*
 (Melodic composition)

g. *ρύθμοποιία*
 (Rhythmic composition or applied rhythm)

h. *ποίησις*
 (Poetics)

i. *όργανική*
 (Instrumental performance)

k. *ψόδιχή*
 (Singing)

l. *ύποχρητική*
 (Dramatic action)

however, he will have to proceed with a little more caution because, whilst many philologists have succeeded splendidly and have veered off the path of life, every historian of art, on the contrary, must listen to the life pulse of the artistic forms and would not wish to kill them with his probe.

To attain his main task, namely, the research of the laws of art of diverse periods and their organic combination and development, the historian of art utilises the same methodology as that of the investigator of nature; that is, by preference the inductive method. From several examples he extracts that which is common and separates those aspects which differ, and utilises also the method of abstraction in which, from given concrete conceptions, particular sections are neglected and others preferred. The setting up of hypotheses is also not inconceivable. A more detailed explication of the foregoing is reserved for a special paper; the emphasis here lies in the analogy between the methodology of the science of art and that of the natural sciences.

The setting up of the highest laws of art and their practical utilisation in musical paedagogics reveal the science in unmediated contact with the actual life of art. The science attains its goal to its fullest extent only when it remains in living contact with art. Art and the science of art do not exist in separate compartments, the boundaries of which are sharply drawn; rather it is far more one and the same field, and only the way in which each is treated differs.

The artist builds his temple in the grove, in the grove where fragrance is newly revived, time and again, from freely growing flowers. The theoretician of art tills the earth; he educates the disciples to his life's task and accompanies the inspired creator as a lifelong companion. Should the scholar of art observe that matters are not turning out in the best interests of art, then he directs it onto the proper course. If the building is already erected, then the historian of art protects and defends it and repairs the damaged portions. Should it become quite dilapidated, then he buttresses it in order to preserve it for future generations. With these operations, however, the true friend does not content himself. He arranges and organises the whole, and in this way makes it more accessible to the public. Should it be stormed or brought down, then he surrounds it or withdraws it a certain distance, and saves it in this way for periods that will once again show the proper appreciation of it.

One of his loveliest tasks, however, is to keep fresh the living flower garden of the earthly kingdom by arousing and furthering the necessary interest. Unfortunately, most of the writers on art have endeavoured to withdraw from this exalted duty. Ultimately they are the guardians of order. They codify, as has been shown, the correct practice that has become law; however, they must—or rather should—also keep it flexible with regard to life's exigencies. When the artist abandons the region of his forefathers in order to conquer a new territory, then the historian of art does not allow the old to become deserted and desolate, but at the same time takes upon himself the dual task of assisting, with his army of helpers, the artist in the occupation [of the territory] by lending a hand in

13. making the newly acquired soil arable, and setting up the equipment needed to construct a new work. His experiences serve to advise the young builder. Should the latter, through overconfidence, refuse such helpful participation, then he will either fail altogether to complete the building,²³ or the building will soon collapse because it stands on unstable ground and is unable to withstand the wind and weather.

From the cradle to the grave the researcher of art accompanies the artist; the spiritual children of the latter, the truth of his life's course, will be shielded and defended by the historian of art beyond the grave. As independence of judgement in the case of the deceased artist is easy, it is obligatory to retain the same attitude also with respect to the living artist. Voltaire's expression "son doit des égards aux vivants, on ne doit aux morts que la vérité"²⁴ implies, despite its apparent courteousness, a greater danger, namely, that, just as one shows particular consideration towards one person, towards another one acts just as inconsiderately, and so allows oneself to be guided by predetermined sympathies and antipathies, whose distortions stain many a page in the history of writers about art. As a result, the most important basic tenet should be: "Concerning the living as the dead, nothing but the truth."

14. Besides the pursuit of its absolute endeavours—as a consequence of which it regards itself as an end in itself, not concerning itself about its wider practical utilisation—the science will then contribute to the proper comprehension and evaluation of the various epochs of art, and on that basis, to the most important result of its investigations, the establishment of the supreme laws within the individual branches of art. And, in view of the confusion in the contemporary state of the arts and the evident vacillation in artistic production, it will contribute also to the improvement of the present situation of art. It has been asserted that the incipient expansion of the science of art is a certain sign of the decline of art. However, it has been explained above that the creation of art is impossible without a knowledge of art. Should it actually occur that reflection and research take the upper hand, then this would for the time being merely demonstrate that historical appreciation had strengthened. This has, however, long been recognised as highly advantageous to the apprehension of works of art.

If the science of art keeps within its natural bounds and unites with the artists in specific tasks, as, for example, in restoring, arranging and performing historical works, then it is impossible for it to jeopardise the production of art, quite apart from the fact that a genuine creative power allows itself to be guided and educated but not suppressed. Above all, however, the science itself must grow in strength; it must limit itself in terms of the proper evaluation of the tasks immediately at hand, and so attain mastery.

In the Introduction to the *Jahrbüchern für musikalische Wissenschaft* [Yearbooks for Musical Science] (Leipzig: Breitkopf & Härtel, 1863), Chrysander wrote:

One should never forego the conviction that, that which is created by the spirit, little by little in

natural development, will, in the course of gaining insight, again be unified.

Concerning this field of knowledge especially, he commented further:

The main cause of doubt generally adduced, namely, that musical science should ever attain the height or inner perfection of that of the graphic arts—because music in its essence is too elusive than that in its field a science could evolve which could meet the highest demands—is an illusion.

And, as if it had been written to elucidate the foregoing, a section in Spitta's *Festrede* on "Art and the Science of Art", given on March 21, 1883, at the Royal Academy of the Arts in Berlin declares:

The science of art, few branches excepted, still grapples with all the difficulties of the beginner. Without the backing of a firm tradition, fluctuating in its method and often questionable in its results, it is considered, even amongst scholars, more as an adjunct to other scientific disciplines, because it lacks the power to stand on its own feet. As it has not only a philosophical, but also a physical-mathematical, and even an historical and philosophical side, it reaches, in fact, into various other independent fields of science, and it is only its object of research that enables it to claim a place for itself under the sun. Furthermore, until now it has scarcely been attempted anywhere to bring to public recognition, within the world of science and society at large, the unification of the diverse directions of the science of art into an independent whole. Nevertheless, this will have to occur in the short or long term. The research material is too rich and important, the prerequisites for the researcher's successful overcoming of these problems are too unique, than that it could not be assumed that the science of art would achieve a recognised place amongst its sister sciences. But, however that may be, it is certain that here great scientific tasks lie ahead, the solutions to which must and will be found.

May the present attempt towards a unitary field theory of musicology contribute towards meeting these needs!

Every step that leads to this goal, every deed that pushes us closer to it, signifies progress in our human insight. The more sincere the will, the more effective the consequence; the more comprehensive the expertise, the more meaningful the product; the more who share in the undertaking, the more profound the effect [result], which bears the highest value: Discovery of the True and Advancement of the Beautiful.

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NOTES

1. The term *Musikwissenschaft* had been in existence since the second quarter of the nineteenth century, and was fairly established by mid-century. Nevertheless, Chrysander still used the older term '*musikalische Wissenschaft*' in the title of the journal he founded in 1863. By using the term in its title, the new journal set the seal of approval on its acceptance as the designation for the emerging academic discipline. It is in this sense that it was the first to do so.
2. The English word 'science' is used throughout in its original sense of 'any systematised body of knowledge'.
3. This was, in fact, the second chair of musicology to be founded in the German-speaking world. The first was established a year earlier at Strassburg [Strasbourg], where Jakobsthal took up the appointment.
4. It is no accident that the term *Kunst* [art], and its derivative and compound formations, outweigh by a factor of two the term *Musik* and its derivative and compound formations. Adler consistently relates the science of music to the science of art in general.
5. This can be perceived more clearly in Adler's inaugural lecture of 1898, where the motto now reads: 'through understanding of art, to have an effect on art'.
6. The comparative method was the ubiquitous tool of scholarship in the nineteenth century, and was applied in fields other than the physical and natural sciences as well, for example, in linguistics and religion.
7. Stylistic laws reveal a process of selection. As much of Adler's metaphorical language suggests that he perceived history, and music as an art, in terms of a living organism, it is not unreasonable to speak of this process of selection as in some way 'natural'. The essential originality in Darwin's theory of evolution lay in his attributing to nature the process of selection by means of the concept of survival of the fittest, which is itself a metaphorical view of nature, conceiving it as having some kind of mind. In speaking of the investigation of stylistic laws, Adler's imagery is thoroughly Darwinian. It is not the composer who selects; the musical forms themselves grow, like chains of cells, or die because they are not fit to survive.
8. Although Adler used the word *Tonkunst*, in the context of the opening historical outline of the development of the science of music, it seemed appropriate to translate the word in terms of this context. However, the opening sentence may be interpreted as meaning that the concept of 'tonal art' is a modern one, synchronic with the development of musicology.
9. Adler was referring to pre-nineteenth century systems of notation. The twentieth century has witnessed a proliferation of notational systems.
10. The verb *periodisirt* has no English equivalent. The concept of periodicity involves regular and irregular recurrence, hence the format of the translation.
11. The German word *Klang* has the connotation of timbre, but is an indefinite concept which is best translated as 'sound', even though the latter term lacks such a connotation.
12. The word *Gattung* was similarly translated by Strunk as 'species'—see Adler (1934). This interpretation is implied by his imagery.
13. The word *Tondichter* is used as a synonym for 'composer'. Adler may have had the 'sister science' of literary history in mind, or have been using a commonplace Romantic notion of the composer as poet. The term *Tonsetzer* presents difficulties. Did he mean a 'composer of tones', or a person who sets words to music?
14. The word used is *Meister* in the sense of a 'master craftsman'.
15. Adler uses the word *zerfällt*, meaning 'to fall into more than one part', implying a 'natural' division.
16. The verb *gliedert* indicates that, in Adler's view, the history of music acts like a living organism in the process of organisation.

17. In the attached table, the term *Territorien* is replaced with the term *Reichen*, meaning 'empires', thus indicating Adler's underlying thought.
18. The word used is *Taktbezeichnung*.
19. The phrase means 'par excellence'.
20. In the musical theory of tonal music, seconds and fourths are dissonant, the latter if heard between the bass and an upper voice; therefore, motion in parallel seconds and fourths was anathematic.
21. The German language is particularly rich in words for different kinds of sounds. The words used here are *Klang*, *Schall*, and *Geräusch*.
22. Adler uses the word *Bandwurm* metaphorically, indicating that these questions persist. They are like the tapeworm in having a beginning (head), but no end in sight as they keep growing a tail.
23. The phrase '*unter Dach bringen*', meaning literally 'to bring under the roof', indicates a late stage in the construction of stone or brick buildings, where the outer walls have to be completed to the height at which they will support the rafters before the roof is put on. In wooden framehouses, the roof is supported by the skeletal framework, and is put on before the walls are clad.
24. 'One owes respect to the living, and nothing but the truth to the dead'.
25. Adler uses the term *Cohärenz* which has the meaning of a 'natural or logical connection'. This word is closer to his thought than that of 'correlation'—as used in the translation of the table given in the *New Grove Dictionary of Music and Musicians* (1980: s.v. "Musicology")— which suggests relationships of a more arbitrary nature.

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