

# New Music, Darmstadt and the Avant-garde

PART OF

*THE PORTUGUESE DARMSTADT GENERATION – the piano music of the  
Portuguese avant-garde*

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## AN AESTHETIC AND HISTORIC PERSPECTIVE

The evolution of music in Europe after the Second World War has been seen from different perspectives. The important events and transformations that took place point to the emergence of new ideas of sound and of music construction, and the explosion of its consequences in all aspects of the musical life: expression, creation, performance, composition, etc.

There are several paradigmatic aspects that together developed music to what it can now be seen as the *historic avant-garde*.

1 - The first paradigm is the hypothetical “decline” of the tonal system, the failure of a substructure that had been the common basis for all music of the last two centuries, and had been understood by the public. This decline was seen as an historical consequence of the highly elaborated harmonies of Wagner and post Wagnerian composers, culminating in Debussy, Strauss and Schönberg<sup>1</sup>. This decline forshadowed the use of different non-tonal substructures (modal, exotic, popular, new scales) and the twelve-tone theories of Schönberg and of the other composers of the second Viennese school (Alban Berg and Anton von Webern).

2 - The second — and basic — paradigm is the ideal of the “new”. The “new” as an opposition to the “old” and, later, to romanticism and the romantic way of

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<sup>1</sup> Not to forget also Moussorsky, Janacek, Bruckner, Liszt, Chopin and others.

expression; the “new” as a sociological attitude towards the established music milieu; the “new” as an awareness of the present situation in history and the “new” as an aesthetic criteria for art: the concepts of “modern”, “new”, “truth” and the “avant-garde” as defined by Adorno.

- 3 - The significance of the twelve-tone system was important, not only as a substructure for composition — as in Schönberg — but also as a basic idea for the use of all kinds of series, and for the construction as an esthetical value in itself. This is, perhaps, the third paradigm of the avant-garde: the different use of the series and its consequences in the 1950’s and after, as seen in Messiaen, Boulez, Stockhausen, etc.
- 4 - To experiment with sound, to play with sound objects and sound structures, to question the material itself and the way it is written, to enjoy as an artistic procedure any experiment with sounds, is perhaps, a fourth paradigm that transformed the music of the 1950’s and 1960’s.
- 5 - The fifth paradigm arises as the continuation of the evolution in modern history and its technological developments: the machine and the mechanical spirit and all its uses in music, from *Musique Concrète* to aleatory elements, compositional software, chance, live electronics, etc.

## THE END OF TONALITY

### A

The music of some of the composers of the 19<sup>th</sup> and the beginning of the 20<sup>th</sup> century contains a very free use of harmony, far from the strict codified rules made by Rameau and used by the Viennese classical style. Wagner — i.e. in the Prelude of “Tristan and Isolde” — was seen as a “point of no return” in the use of dissonant chords, free harmony and no resolution of dissonance. This evolution — due to a hypothetical profound aesthetic need — also had its roots in some political and social particularities.

### B

The 19<sup>th</sup> century and the first half of the 20<sup>th</sup> century were times in which society (the upper classes and the working class), for various reasons, started to look and to be

aware of other people, in political, cultural, geographical and social terms. Many political forces of different kinds fought against the supremacy of others: the social movements enhanced by social and nationalist movements, socialist ideas of Saint Simon, Karl Marx and others, the fight for national self-recognition and for freedom (Greece, the different Slavic nationalities, Italy, Poland, etc.). These countries fought for a separation from the empires into which they had been integrated, and this fight was also for the survival of their culture — their language, uses, religion, art, music — which they studied, cultivated and included in all kinds of art expression. Also other countries, Spain, Russia and even Germany, developed their own art and music, integrating folk forms and structures into art music.

## C

With the evolution of transport, commerce and the development of colonialism (forced by industrialisation in Europe and America), many civilisations around the world were discovered, studied and exhibited to the metropolitan societies in Europe. Their variety, characteristics, their different ways of living and of dealing with the materials, their artistic forms interested the European public and artists not only for their exoticism but also for their possibilities in European art. Artefacts, dance and music of Bali, of different African and Asian peoples, of Australia and Polynesia and of the Native Americans began to be seen and heard in international and colonial exhibitions and to be studied together with their language, philosophy and social behaviour.

So, for different reasons, new scales, rhythms and timbres appeared in European and American concert rooms, as an exotic symbol or integrated in a new music, as a characteristic of a personal style. After Moussorgsky, Wagner, Liszt, Albeniz, Janacek, the modern Debussy, Stravinsky, Bartok, Milhaud and Messiaen went just a step further in the use and development of musical substructures different from the tonal tradition.

In the second half of the 20<sup>th</sup> century, this interest of composers in music of other civilisations became very important. The question was not how to incorporate foreign elements in a European language but how to find — to develop — a new music in which foreign (exotic) materials and structures could be used at the same level as the new ones created in Europe and the USA. After World War II composers searched for new ideas and new concepts of music, new sounds to work with and used them not as

ornaments or symbolic elements (as Puccini, Milhaud and Debussy), or even as substructures for “European” composition (as Messiaen). Cage, Boulez, Stockhausen and other composers began to develop different concepts of music, new ways of developing musical ideas, new notions of rhythm and time (not simply foreign rhythms) and new relationships between text, speech and singing. They questioned and developed further the spirituality of the music, the idea of time and duration, different pitch substructures and relationships (microtonality, relations of timbres and pitch), etc.<sup>2</sup>

#### MODERNITY, THE “NEW” AND THE “AVANT-GARDE”

The years before and after 1900 were, in the history of Europe, years of great changes in the way people thought about society and art: Baudelaire, Rimbaud, Mallarmé, Debussy, Satie, Stravinsky, Joyce, Picasso, Braque, Kandinsky, Schönberg and many others made substantial changes in their own forms of expression and in art in general: they conceived new forms of art; they invented new ways of dealing with the materials and the structures that were available. They represented modernity and “the new” in the years before and after the turn of the century.

The concept of “modernity” is, in fact, a reference which different artists used. In the 19<sup>th</sup> century, Baudelaire referred to the importance of modernity: “*Qui dit Romantique dit art moderne*”<sup>3</sup>. The concept of modernity is a response to the transitory, to the circumstances of the time, to the needs of modern life. A modern artist was that one who was aware of the new social, political and cultural developments of the 19th century, assuming his *Zeitgeist* against the academy and the establishment.

*“La modernité c'est le transitoire, le fugitif, le contingent, la moitié de l'art, dont l'autre moitié est l'éternel et l'immutable”.*<sup>4</sup>

Soon it was seen that any art forms considered modern became old for the following generations, especially when society (the market, the bourgeoisie) began to accept those modern artists. *Modernité* began to be a synonym of *décadence*. New forms emerged

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<sup>2</sup> It is interesting to view the words of Boulez against the Asian influence in some composers (Cage, for instance) and, on the other hand, his interest in *Gagaku*, *No* theatre and Asian music in general. Then, for Boulez, the answer was not simply in using foreign materials, structures or even concepts — they belong to “perfect” and “dead” music, the music of those societies — but to transcend them in a language that would answer to the composer's preoccupations. See Boulez, Pierre (1986): page 421 and following and page 449 and following.

<sup>3</sup> Quoted in Compagnon, Antoine (1990): page 29.

<sup>4</sup> Baudelaire quoted in Boulez, Pierre (1966): page 37.

from the new generations, opposing their ideas to the old modernity: Symbolism, the *Nabis*, *Art Nouveau*, the *Fauves* (opposed to impressionism and the Academy), Debussy, Ravel and Satie (opposed to German complexity and the *Conservatoire*), atonal music (opposed to tonal music). The “new” was a necessity, not only as an affirmation of a generation but also as a continuous transformation, proposing constantly new forms and new ideas. The “new” referred to the “now”, in a constant opposition to the past.

“Because: Art means New Art”.<sup>5</sup>

Another concept emerging together with “the new” was “avant-garde”. It was first used in the military then in politics and finally in art: avant-garde sometimes replaced the concept of modernity and of new. Already with Saint Simon, the 19<sup>th</sup> century avant-garde artists created the concept of a socially and politically engaged art of the future<sup>6</sup>, opposed to the present new art — only engaged in itself<sup>7</sup> — and to the old forms, academic, modern, bourgeois. The “new” developed itself to a dialectic of the “new”, assuming a social and political eminence, at least an aesthetic one in terms of a constant questioning of its principles.

Two kinds of avant-garde can be seen in art since the end of the 19<sup>th</sup> century: an avant-garde where the artists were engaged in a political cause (from Zola to Brecht, Weill, and later Chostakovitch), and an avant-garde where the artists were aesthetically engaged (Rimbaud, Mallarmé, Satie, Stravinsky of the *Sacre*, Schönberg, Boulez). Some artists and movements such as Surrealism and Futurism can be seen in one or the other kind of avant-garde. The first kind of avant-garde — especially after the repression of artists under Stalin — developed itself into a politically engaged tradition, assuming artistic forms of the past with new ideological intentions (as Eisler). The second assumed different roles in Western Europe and the USA. Especially after W.W.II many artists questioned both materials and forms, even the ways people appreciated art and the very concept of art itself.<sup>8</sup>

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<sup>5</sup> Schönberg, Arnold (1984): page 115.

<sup>6</sup> That should somehow come together with the "man of the future" in a "society of the future", in a rough parallel with 19<sup>th</sup> century philosophy.

<sup>7</sup> “art for the art”.

<sup>8</sup> As results of this way of understanding avant-garde are conceptual art, happenings, trash-art, and some other extreme approaches. Cf. Compagnon, Antoine (1990).

*Adorno and the new music*

Characteristic of the use of this second concept of avant-garde is Adorno, a musician and philosopher of the School of Frankfurt. Adorno, a Marxist with much interest in the appreciation and production of art in social terms, theorised about the evolution of new art forms since Baudelaire.

In Adorno, the “new” — the “new music” — implies a coherent (in ideological, aesthetic and technical terms) opposition to the past. It is an opposition to a society of bourgeois structures, already established and confirmed through multiple symbols — political, social and cultural symbols — that tends to be preserved and varied through time. The “new” exists in the opposition to well-known techniques, to already used expressions (and saturated by the repetition of its own expressive properties), to musical objects already too much explored.

"In this way, art becomes the mere exponent of society, rather than a catalyst for change in society. It thus gives official approval to that tendency of the bourgeois consciousness to degrade all intellectual formulations to a simple function, an object which can be substituted for some other object, or—in the final analysis—an article of consumption"<sup>9</sup>

The “new” is the nostalgia for the “new”<sup>10</sup>. As a basis for the so called "negative aesthetic", this concept of new art implies an attitude of permanent discovery and experimentation of new expressive means and a constant movement, a constant change, in opposition to the established. The “new” must also be in contradiction with the society, as, in the Adorno's aesthetics, capitalism tends to assimilate the “new” to the market of art.

"No artist is able to overcome, through his own individual resources, the contradiction of enchained art within an enchained society"<sup>11</sup>. The most which he can hope to accomplish is the contradiction of such a society through emancipated art, and even in this attempt he might well be victim of despair."<sup>12</sup>

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<sup>9</sup> Adorno, Theodor W. (1973): p. 25.

<sup>10</sup> Adorno, Theodor W. (1982 a): p. 45.

<sup>11</sup> Perhaps a wrong translation of the original "*der entfesselten Kunst zur gefesselten Gesellschaft*" (see Adorno, Theodor W. (1997): page 102. I propose "*contradiction of unenchained art within an enchained society*".

<sup>12</sup> Adorno, Theodor W. (1973): pages 105 and 106.

The “new” implies “truth” in art, in opposition to “false”. Again, for Adorno, these concepts have to be understood not only in aesthetic terms, but also in historical and social and terms. Musical objects are false or true not because of fashion but due to their implications in a dialectic perspective of the art and society. “Truth” implies the novelty or recurrence of the materials — their more or less expressive possibilities.

"Even the more insensitive ear detects the shabbiness of exhaustion of the diminished seventh chord and certain chromatic modulatory tones in the *salon music* of the nineteenth century. For the technically trained ear, such vague discomfort is transformed into a prohibitive canon. If all is not deception, this canon today excludes even the medium of tonality—that is to say, the means of all traditional music. It is not simply that these sounds are antiquated and untimely, but that they are false. They no longer fulfil their function. The most progressive level of technical procedures designs tasks before which traditional sounds reveal themselves as important *clichés*"<sup>13</sup>

Thus, in Adorno, the new artist — the new musician — must have a discussion with the past, a dialectic attitude of confrontation with the sound materials, with the forms<sup>14</sup>. Even a confrontation with a possible urge for stability — a resignation — with its own discoveries.

" «Music is not to be decorative; it is to be true and Art does not arise out of ability but rather out of necessity »<sup>15</sup>. With the negation of illusion and play music tends towards the direction of knowledge".<sup>16</sup>

Finally, this (negative) aesthetic and this social imperative — especially in twelve-tone music, and as a consequence of its own formal and expressive content — takes a somehow tragic facet, as considered by Adorno already in 1949: its importance for the future, as a message in a bottle, is in contrast with its inevitable distance from the present and from the public.

"Modern music sacrifices itself to this effort. It has taken upon itself all the darkness and guilt of the world. Its fortune lies in the perception of misfortune; all of its beauty is in denying itself the illusion of beauty. No one wishes to become involved with art — individuals as little collectives. It dies away unheard, without

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<sup>13</sup> Adorno, Theodor W. (1973): page 34.

<sup>14</sup> This critic was also addressed to Schönberg and later the to the serialists, in their possible dogmatic attitude in what concerns the use — the “fetishisme” — of compositional techniques. Adorno defended a kind of new dialectic confrontation of the composer with the materials (including the techniques, the form, the rhythm patterns, etc.). Boulez later made the same critic pointing to other paths of musical development (See Adorno, Theodor W. (1982 b)).

<sup>15</sup> Arnold Schönberg, *Probleme des Kunstunterrichts*, quoted in Adorno, Theodor W. (1973): page 41.

<sup>16</sup> Adorno, Theodor W. (1973): page 41.

even an echo. If time crystallizes around that music which has been heard, revealing its radiant quintessence, music, which has not been heard, falls into empty time like an impotent bullet. Modern music spontaneously aims towards this last experience evidenced hourly in mechanical music. Modern music sees absolute oblivion as its goal. It is the surviving message of despair from the shipwrecked."<sup>17</sup>

The importance of Adorno's ideas remains not only in the critical observations about the new music emerging in Europe (the first edition of *Philosophie der Neuen Musik* was in 1949) but as an ideological basis for the evolution of the avant-garde till the 1960's. Cage, Brown, Feldman, Stockhausen, Boulez, Berio and Nono were some of the artists who were involved in this view of modern art<sup>18</sup>.

Despite the differences of the concepts here explained, artists and artistic movements used the terms "Modern", "New" and "Avant-garde" with little accuracy. Nevertheless, the differences can be distinguished by the context and by a critical view of the artistic productions.

Adorno's influence on music of the second half of the century continued, as a critic against some of the new ideas of composition growing in Darmstadt, and later in the sixties, in his article "*Vers une musique informel*" where he reconsiders the ideas of Boulez and proposes a sort of way out of the already dead serialism.

#### TWELVE-TONE MUSIC AND THE SERIES

The "discovery" of the twelve-tone system by Schönberg is illustrated as an historical necessity, which could already be seen in the progressive emancipation of the dissonance in the romantic style. This system imposed a new way of dealing with tone relationships: the strict hierarchic relations of traditional harmony were replaced by a new concept — the series — where each pitch had a specific and equal place among the others. Each series in each piece determined the harmonic and melodic possibilities, as a super-motive, unifying its parts in a much more efficient way than the tonal system, even more so in extended works (symphonies, operas).<sup>19</sup>

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<sup>17</sup>Adorno, Theodor W. (1973): page 133.

<sup>18</sup>The influence of the aesthetic of Adorno is still much seen in many composers, especially those who were influenced by serialism and Darmstadt (Peixinho, Salazar, Emmanuel Nunes, etc.)

<sup>19</sup> See Schönberg, Arnold (1975): page 244.

The twelve-tone system was seen as a kind of new common basis that would replace the old tonal system in its universal character. It was seen even as a system that would “ensure the supremacy of German music”<sup>20</sup>.

But in 1952, Boulez — *Schönberg est Mort* — explained his ideas about a misunderstanding of Schönberg’s series and its importance in new music. Boulez, in this text <sup>21</sup> as in others of the same period, contradicts the relevance of Schönberg’s understanding of the series, accusing him of not having exploited thoroughly its possibilities. According to Boulez, Schönberg simply replaced the old tonality and enlarged the theme-based structures by the pitch series. For Boulez, Schönberg didn’t develop new forms nor did he expand the series to cover rhythm, timbre, etc. <sup>22</sup>

For Boulez, the series should be the basis not only for the notes and/or intervals but also for all parameters in the piece. Unlike Schönberg and Berg, the composers should avoid any use of old forms (sonata, waltz, etc.) and assume each piece as a new form that emerged from the series.

“(…) de même que les modes ou les tonalités engendraient non seulement les morphologies musicales, mais à partir d’elles, la syntaxe et les formes, de même le principe sériel recèle de nouvelles morphologies (...). Il faut bien avouer que nous ne trouvons guère chez Schönberg une telle conscience du principe sériel générateur.” <sup>23</sup>

The series was not only a row of different ways of using each musical parameter (rhythm, pitch, texture, dynamics, etc.). It implied the spirit of a total control of all parameters in the music, the spirit of absolute objectivity and determination: in the creation and transformation of the materials, in the logic of the structure, in the creation of the form.

“Because mathematics is the science with the most developed methodology at the present time, I have taken it as example that may help us to fill the gaps in our present system.” <sup>24</sup>

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<sup>20</sup> Schönberg quoted in Macdonald, Malcolm (1976): p.35.

<sup>21</sup> Avant-garde in the terms of Adorno.

<sup>22</sup> Adorno also criticised Schönberg for not continuing to develop — the search for the new — his system.

<sup>23</sup> Boulez, Pierre (1966): page 17.

<sup>24</sup> Boulez, Pierre (1986): page 98.

Sometimes, the works resulting from these ideas were highly complex and difficult to perform and to understand, considered more as documents than as works of art, but the results were undoubtedly minor in the face of the composing procedures.<sup>25</sup>

Pierre Boulez and many composers in the 1950's and 1960's adopted compositional techniques close to this serialism, believing again in the historical importance and necessity of its procedures. And these procedures excluded (as we can see in the writings of Schönberg<sup>26</sup> and in the practice of Boulez, Berio, Pousseur and others) the use of traditional chords, scales, octave intervals, etc. The principle — in line with the Adornian theories — was to prevent the use of any traditional musical object, substructure or structure, even to avoid a traditional — romantic, classic or neo-classic — way of appreciating music. The terms “romantic” and “neo-classic” were used as insults, referring to a less modern, less new, less contemporary or less avant-garde composer.

“What we were looking for was not simply a fashion to be worn for a single season (...) but a real language and long-term solutions of formal and linguistic problems. Some of our solutions were no doubt exaggeratedly strict in character, a discipline that irked but represented a necessary stage.”<sup>27</sup>

In fact, as Boulez wisely said in this text of 1968, the attempt to create a new common language didn't have much success, as with Schönberg 30 years earlier with the twelve-tone system. Different personal ways of composition and different tendencies appeared, some of them based on the aesthetic principles described, some others “backward-looking”, “not so much tendencies in fact as nostalgia” in the words of Boulez.<sup>28</sup>

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<sup>25</sup> See Boulez, Pierre (1966): pages 17, 265 and following and Boulez (1986): page 200.

<sup>26</sup> See Schönberg, Arnold (1975): page 207.

<sup>27</sup> Boulez, Pierre (1986): page 446.

<sup>28</sup> It is interesting the following text of Compagnon in face of the ideas of Boulez in the 1950's.

“C'est ce destin insupportable que les avant-gardes ont conjuré en se faisant historiques, donnant le mouvement indéfini du nouveau pour un dépassement critique. Pour conserver un sens, pour se distinguer de la décadence, le renouvellement doit s'identifier à une trajectoire vers l'essence de l'art, une réduction et une purification.” Compagnon, Antoine (1990): p. 48).

## EXPERIMENTING

All 20<sup>th</sup> century art is also marked by ideas which appeared before W.W. II in different groups of artists: *Der Blaue Reiter*, *Dada*, Futurism, Surrealism, etc. Some of these groups were merely nihilistic, others tried to experiment with new forms of art and new forms of art reception, or proposed a social engagement. The effect of the questions that these artists and intellectuals raised — about form, expression, the (unexpected) use of materials, about performance and the rôle of the public — was devastating. New sounds and new instruments were experimented, new forms of artistic appearance (in the theatre, involving the public, etc) appeared, new concepts were tried in their relation to the public and to the social context. The music for "noisy intoners" of Russolo, the theatre of *Cabaret Voltaire*, the works and ideas of Satie, all are examples of this impulse towards experimentation. They created the basis for the experimental work of Pollock, Varèse, Cage, Stockhausen (especially in the 1960's), Kagel, Schnebel and others.

The idea, completely new in the face of all ancient art, was of total freedom, freedom from concepts like "masterpiece", "high art", from any artistic "laws". These artists had the need of trying, transforming, developing and discussing all matters of art. In music, some of the first works having this character were the piano pieces of Henry Cowell and Antheil, the percussion pieces of Varèse, the experiments with prepared pianos made by Cage, the experiments with electronic sounds (Stockhausen, Boulez, etc.) and the *Musique concrète* of Pierre Schaeffer and Pierre Henry. Later this concept was related to "happenings" ("events" in the words of J. Cage<sup>29</sup>), to musical theatre (Kagel, Schnebel<sup>30</sup>), to the use of all kinds of objects to make sounds (Cage, electronic and *Musique concrète*), to improvisation (interacting with the public, group improvisation, solo, etc.), to many kinds of artistic — and somehow musical — expression that was meant not to present something complete, finished, a final work that would always be repeated in the same way.<sup>31</sup>

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<sup>29</sup> In Portugal Jorge Peixinho.

<sup>30</sup> In Portugal Constança Capdeville.

<sup>31</sup> Some of the more interesting experiments are those of Cage, Murray Schafer, Stockhausen, Maurizio Kagel and Dieter Schnebel. In Portugal, the experimentation and "events" of Peixinho (with other musicians and with Ernesto de Sousa, later in the group *Alternativa Zero*) and the musical theatre of *Colect Viva* (Constança Capdeville), both after the 1960's, were, perhaps, the most important.

The influence of this experimental spirit was very strong in the 1960's, in jazz music (free jazz), in school music (Murray Schafer and John Paynter), cinema, theatre and dance (*nouvelle vague*, *Living Theatre*, Merce Cunningham, Martha Graham), ensemble experiments and group improvisation.

Most important were the new methods of music notation. In many works of this period the score was not considered as a closed encrypted language, reflecting the concrete sound intentions of the composer, but as a proposal for further musical invention, giving more or less rough "graphic" instructions. The new "graphic notation" was less concerned, most of the times, with traditional parameters such as pitch and rhythm, trying instead to emphasise such other parameters as the timbre evolution of the sounds, the relation (interaction) between the musicians, or the greater or lesser density of sound events. Sometimes the score was just an image or a group of written instructions that the musicians could interpret as they wanted <sup>32</sup>.

#### FROM DETERMINISM TO ELECTRONICS

The aesthetics of twelve-tone music and serialism must be understood in a historic context. In fact, since the 17<sup>th</sup> century, Europe's history has been marked by an enormous evolution of empirical methods (machinery, chemistry, and physics), of positivism and of sciences that were important for the development of the industrial revolution. Also the social and human sciences and disciplines were influenced by this positive spirit of objectivity, organising themselves or adapting the new methods to their specific objectives. This was the case in musicology, sociology, epistemology, language studies, psychology and psychiatry and of education studies.

This attitude marked also the music of the 20<sup>th</sup> century in two ways, the first through the development of new ways of producing sounds, the second through the use of ways of composing which were highly determinist, with consequences both in interpretation and composition.

#### *Electronic music*

"There was a time when I had announced the end of instrumental music – because I felt that the traditional

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<sup>32</sup> As in Stockhausens *Aus der Sieben Tagen* and Cage's piano concerto.

mechanical instruments could no longer serve the further development of all the parameters: the refinement of dynamics, of degrees of frequencies; refinement in micro-scales, macro-scales; the expansions, contractions of scales; the projection of sound in space."<sup>33</sup>

In the beginning of the century, with the evolution of electricity, some experiments were made trying to create new electric instruments with the properties of the acoustic ones (*Telharmonium* - 1906, *Theremin*- 1920, *Ondes Martenot* - 1928, *Trautonium* - 1930, *Hammond organ* - 1934). The Futurists defended in a *manifesto* <sup>34</sup> a new music that could reflect modern life, using noises (*rumori*) made by specific new instruments (noise intonators). Later Varèse (*Hyperprism* - 1922, *Ionisation* - 1929) and Cage (*Construction in Metal* - 1939) intensified this appetite for new sounds. But it was only in 1948 that this evolution became autonomous, with the use of tape recorders, in what was called *musique concrète*. Pierre Schaeffer and Pierre Henry (*Groupe de Recherche de Musique Concrète*, later *Groupe de Recherches Musicales de Radio France*) were interested in experimenting and using concrete sounds and transforming — manipulating — them, creating the music directly on the tape.

In the 1950's many other electronic studios appeared, creating and transforming sounds with electronic devices that could change the different parameters of sound.

1948 — *Groupe de Recherche de Musique Concrète*, in 1958 *Groupe de Recherches Musicales de ORTF* (Schaeffer, Bayle, Varèse, Stockhausen, Xenakis, **Armando Santiago in 1960, Filipe Pires in 1970**)<sup>35</sup>

1951 — Columbia-Princeton Electronic Music Center N.Y. (Babbitt, Varèse)

1951 — *Studio für Elektronische Musik* Cologne (Eimert, Stockhausen, **Emmanuel Nunes in 1965**)

1953 — *Studio di Fonologia* RAI Milan (Berio, Maderna Nono)

1956 — Philips Research Laboratories Eindhoven (Badings, Varèse)

1957 — *Studio für Elektronische Musik Siemens* Munich (Riedl)

1958 — Studio de Musique Electronique Brussels (Pousseur)

1960 — Institute of Sonology of the Royal Conservatory in The Hague (**Peixinho in 1960**)

1962 — *Instituut voor Psychoakoestiek en Elektronische Muziek* Ghent (Pousseur, **Peixinho in 1972**)

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<sup>33</sup> In Stockhausen, K. e.a. (1997).

<sup>34</sup> Cf. Marinetti (1978): page 204.

<sup>35</sup> The names and dates in bold refer to Portuguese composers.

1976 — *Institute de Recherche et de Coordination Acoustique/Musique* (IRCAM) Paris (Berio, Boulez, Globokar, **Cândido Lima in 1977**)

### *Determinism and Aleatoric Music*

The paradigm of a strict logic applied to music can be seen in the developments of twelve-tone music and, in the 1950's, in serialism. In fact, some of the music of this period (*Structures* of Boulez, *Klavierstücke* I to IV of Stockhausen, *Sequenza* of Berio, *Herma* of Xenakis, etc.) reflects the spirit of serialism in the determination of all parameters of composition. Their scores show extremely accurate determinations in what concerns the *tempi*, dynamics and the rhythmic flow, sometimes in a way that it becomes questionable if those indications have to be — or even can be — understood in their exact meaning, as is possible in electronic music.<sup>36</sup>

With the arrival of the computer, this process of determination in music became more intense, permitting the use of complex mathematics and geometric methods and, at the same time, enabling random inflections in performance. In fact, one of the consequences of total serialism was the use of aleatory proceedings in composition and performance (*I Ching* in Cage, Boulez's 3<sup>rd</sup> sonata, Stockhausen's XI *Klavierstück*, Pousseur's *Caractères 1a, 1b*), sometimes included in strict structures, sometimes including chance procedures. In fact the use of chance had many meanings according to the different composers. For Cage it was an annihilation of the subjective — formal — aspects of composition, raising the transcendent spirit of the work. For Stockhausen and Boulez, the use of chance was part of the predetermined structure of the piece, giving the interpreter the possibility of choosing one from several permitted ways of performing: the piece wouldn't suffer any change in its most important features. Other uses of chance methods in composition, proposing permutations among a group of notes, or an indefinite number of repetitions of a passage, were common and are in conformity with the entropy theories of Umberto Eco<sup>37</sup>.

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<sup>36</sup> For instance the extremely accurate indications in the *tempi* of Stockhausen's *Klavierstücke* are, sometimes, results of strict mathematic operations, modified by indications of *ritardando* and *accelerando*.

<sup>37</sup> Cf. Eco, Umberto (1979).

## DARMSTADT - AN INTRODUCTION

The Darmstadt courses were founded in 1946. The first years of Darmstadt were marked by the enormous difficulties of a country that was trying to survive a lost war, divided into military sectors, where it was very difficult to arrange almost everything, including materials such as scores, instruments, even to cross from one to the other military sector to another<sup>38</sup>. The teachers and the students were from the neighbouring towns and the intention was to restore the evolution of new music interrupted by the Nazi regime.

From the beginning a priority was given to twelve-tone music<sup>39</sup> (three lectures of Heiss). In 1947, Heiss continued with “About the Audibility of Twelve-tone Music” and Stuckenschmidt gave a lecture “Leading Composers of the New Music”, where the theme was the music of Schönberg.

Some events were relevant in these years to the evolution of new music and the avant-garde. Messiaen was heard in 1948 (*Thème et Variations*) and 1949 (*Visions de l'Amen*) and gave a lecture introducing his work<sup>40</sup>. In 1950 Varèse gave a lecture on electronic music. In this year Messiaen (in records, in a lecture about new French music — Messiaen and Milhaud) and Nono (*Variatione Canoniche sulla serie dell'op.41 di Schönberg*) were also heard in Darmstadt. The interest on twelve-tone music grew till 1951 — in 1950 the director W. Steinecke was already accused of favouring it — when Schönberg's opera *Moses und Aaron* was heard. The last years were full of compositions made by young composers that used and developed in different ways the taught twelve-tone technique: in 1949 H. W. Henze (*Apollo et Hyazinthus* and *Variation for piano*)<sup>41</sup>, in 1950 Maderna's *Composizioni II* and Nono's *Variatione canoniche sulla serie dell'op.41 di Schönberg*. Schönberg was expected to give the composition master-class but was replaced (for health reasons) by an Adorno master class on music

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<sup>38</sup> Even the number of calories for students and teachers was measured.

<sup>39</sup> Sometimes more about Hauer's theories than in the music of the Viennese school, considered sometimes — as all expressionism — as out of date.

<sup>40</sup> In this year Louis Sagner — a friend of Lopes-Graça — taught in the Darmstadt courses.

<sup>41</sup> As it is written in Borio (1997): vol. 1 page 187, these works resulted of the courses given by Leibowitz and Rufer. This last composer would later also teach the Portuguese composer Álvaro Cassuto and would have much influence in his first (twelve-tone) works.

criticism<sup>42</sup>. The main idea of the director Wolfgang Steinecke had been to install a leading composer as a resident professor in Darmstadt.

In 1952 the Darmstadt courses were, in the words of Steinecke (and surely for many composers), making history. In this year began also what can be described as the serial period of Darmstadt<sup>43</sup>. Messiaen gave a composition course and presented his new *Quatre études de Rythme*<sup>44</sup>; Boulez, Stockhausen and Goeyvaerts<sup>45</sup> appeared there and began to impose their ideas. Although the composition courses maintained almost the same format and the same staff (Heiss, Fortner, also Stuckenschmidt and Scherchen), some workshops on analysis, interpretation and composition also took place.

In 1953 a concert with works of Webern was given, followed in the next days by a *Studioabende* where works of Boulez (*Polyphonie*), Stockhausen (*Kontra-punkte*), Nono (*Epitaffio*) and others were heard. Olivier Messiaen spoke about Boulez, Hermann Heiss on Stockhausen and Maderna, Antoine Goléa directed a discussion on "*Positions and possibilities in the new music today*".<sup>46</sup> With these events there began in Darmstadt — a year after Boulez article *Schönberg est mort* — what can be called the post-Webernian era. The young composers studied and discussed thoroughly the works of Webern.

" In Webern were tested (Nono, Stockhausen, Boulez, Pousseur) concepts, that had been developed for their own work, or created new ones that, on the other hand, had been related to serial techniques." <sup>47</sup>

Also in these years there began to be used the terms "static music" and "pointillism", referring to the music of the young generation.

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<sup>42</sup> In 1950 Schönberg told Steinecke his concerns about the movement against his music, especially against a Darmstadt première of the *Survivor from Warsaw*. Steinecke assured him that only a very small minority of people were against his music. See Borio (1997): vol. I, page 87.

<sup>43</sup> See Borio (1997): vol. I, page 90.

<sup>44</sup> The importance of these new *Études* of Messiaen was enormous on what became the serial techniques. This group of pieces influenced the next works of Stockhausen, Boulez and Goeyvaerts for their systematic work with series of dynamics, rhythm and pitches.

<sup>45</sup> And Nono as well.

<sup>46</sup> Cf. Borio (1997): vol 1, page 214.

<sup>47</sup> "*An Webern erprobte man (Nono, Stockhausen, Boulez, Pousseur) Begriffe, die man für das eigene Handwerk entwickelt hatte, oder schuf neue, die sich wiederum auf die seriellen Verfahrensweisen übertragen liessen.*" Cf. Borio (1997): vol. 1, page 215.

In 1954 Bruno Maderna gave the *Internazionale Arbeitsgemeinschaft Jungen Komponiste*, and again in 1955 with Boulez and Henze. In 1956 Haba<sup>48</sup> (microtone harmony) and Rufer<sup>49</sup> gave theory courses, together with an *Internazionale Arbeitsgemeinschaft für Komposition und Interpretieren* (with Boulez, Maderna and David Tudor). In 1957 this course was called *Internazionale Arbeitsgemeinschaft für Komposition und Analysen*, with Jennitz, Scherchen, Pousseur, Nono, Jacobs and Stockhausen.<sup>50</sup>

In 1958 the *Internazionale Arbeitsgemeinschaft für Komposition, Analyse und Interpretieren* was with Krenek, Maderna (who was living in Darmstadt), Blacher, John Cage<sup>51</sup> and Kolisch.

*Stockhausen:* (...) I was strangely curious at a certain point in my life, when I had to give seminars at the International Music Courses in Darmstadt. I surprised my composition students, who had come from all over the world, by saying, "Tomorrow there is a seminar at three-thirty in the morning." They looked at me stunned – if you would have seen how they appeared [*all laugh*] and what they understood. I had imagined this beforehand and went to sleep quite early. In the early morning I was completely awake and fresh and had already made all the necessary preparations to be alert, but they were there like – like...

*Auretta:* ...drunk with sleep!

*Stockhausen:* Yes. Then I announced the next seminar – never saying what would happen the next day – for six-thirty in the evening, and that evening taught until two o'clock in the morning, staying in the same room without a break. In Darmstadt I gave seminars for six, seven hours without a stop in a large town hall. There were several hundred people who went out and in, drank, ate. I saw that and just stood there and enjoyed myself and was talking, explaining, and playing music from tapes. I know that breaking through the routine of time makes things reveal the mystery."<sup>52</sup>

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<sup>48</sup> There is some notice of the importance of Haba's harmony (micro-harmony) on the music of Peixinho and Salazar.

<sup>49</sup> Professor of Álvaro Cassuto in Berlin some years later.

<sup>50</sup> There is a report in this year in Borio (1997): vol. 1, page 357, of Boulez's opposition to the presence of Leibowitz as a teacher in Darmstadt. Boulez, although invited, didn't go to the courses. This was, perhaps, one of the major moments of aesthetic and power confrontation between the old composers and musicologists (from Sager, Rufer, Heiss to the dodecaphonists Stuckenschmidt, and Leibowitz) and the new serialists, especially Boulez.

<sup>51</sup> The first Cage courses in Darmstadt had much influence on the evolution of some tendencies of the avant-garde. But his influence in European avant-garde music must be seen much earlier. His friendship with Boulez, the performance of his piano works and his visit to Paris and Messiaen's classes in the years of *Quatre Études du Rythme* and in the early 1950's were very impressive. See the Nattiez, J. J. (1993).

<sup>52</sup> In Stockhausen, K. e.a. (1997).

These courses of the young generation of composers became of great importance for the new composers coming to Darmstadt or simply taking notice of what was happening there. Later Boulez, in an interview published in *Le Monde de la Musique* of 1968<sup>53</sup>, accepted that these techniques and aesthetics of music had come to an end:

“This language developed in a way that might have resulted in a new academism”<sup>54</sup>

#### THE “DARMSTADT SCHOOL”

The "Darmstadt school" was a generation of young composers. Influenced by the music of the Stravinsky of *Le Sacre*, of Webern (more than by the expressionism of Schönberg) and by Messiaen (*Études de Rythme*), this group of composers developed their views with a profound analysis of works of those composers, with the development of techniques using different kinds of series to construct the structure of musical works, experienced the new electronic studios and — despite their differences — formed a kind of common spirit, an (almost) school of composition that spread all over the world. In fact Boulez, Stockhausen (and John Cage, to a certain point), Nono, Pousseur and Berio became symbols of a style that in the 1960's and 1970's was supported by their students and cultural (private and state) institutions. It even became a subject for study in Academies, Universities, Conservatories and other music courses. Their language developed and is now, in some cases, very far from the strict serialist methods: nevertheless, many composers remained faithful to some of the principles here explained and that defined what now is known as the “*historic avant-garde*”. "Avant-garde" because it was driven by the (avant-garde) ideas of Adorno and other theorists; "historic", because their works and techniques became academic, almost totalitarian, becoming the establishment in compositional terms, and therefore obsolete as avant-garde. Also many of the composers of this generation began to create different experiences, use different techniques, sometimes far from the spirit of Darmstadt.

“ The good unity that seemed a possibility twenty years ago has proved a myth, a snare and a delusion; what we have instead is different personalities each taking their own courses, sometimes in violent opposition to each other (...) There are a lot of different tendencies — but I must eliminate from the start all that are

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<sup>53</sup> Included in Boulez, Pierre (1986).

<sup>54</sup> Boulez, Pierre (1986): page 445.

backward-looking, all “restorations”, which are not so much tendencies in fact as nostalgias”<sup>55</sup>.

The tendencies here described by Boulez define the “Darmstadt School” — the “historic avant-garde” in music. And this aesthetic school of thought, of composition and interpretation excludes, as he also says, “restorations”, “nostalgias”, all tendencies now known as post-modern; as the post-modern thought includes — as an aesthetic principle — all “restorations”, “nostalgias”, even those coming from the historic avant-garde.<sup>56</sup>

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<sup>55</sup> Boulez, Pierre (1986): pag. 447.

<sup>56</sup> In fact, the tendency of this historic avant-garde to be a new academicism was vorseen in Adorno's *Philosophy of New Music*. And there there is some notice that Adorno rejected the rigidity of the serialism as understood by the young Stockhausen and by Boulez in the fifties.