

A MUSICAL COMPOSITION BASED ON IMPROVISATION: HERMENEUTIC FUNDAMENTALS – ONE HEURISTIC EXPERIENCE OF CREATION

Ricardo Mandolini

Based on an experience of creation carried out in 1986 by students of the Bachelor's Degree (DEUG II) of the Department of Musical Studies (DEM) of the University Lille III, this work analyses a corpus of readings that allow a reinterpretation of this experience, articulating the texts as a theoretical elucidation of the different moments of the musical realisation. These texts do not respect a chronology but sift, from general to particular, the subject of reference.

The article is a contribution to the ideal of creating an indispensable bridge between theory and practice, as necessary in art as in philosophy and science. It consists of two methodologically different parts: the *hermeneutic fundamentals* and the *heuristic experience of creation*.

The hermeneutic fundamentals begins by exploring Alexander Baumgarten's *confused intelligible* and *heterocosmism*, two key concepts for establishing the meaning of the artistic work in general. It is in understanding the confusion inherent in art in its nascent state that the work can finally become independent of logic as a reference, thus giving rise to new worlds created by the artist where the plausible may supplant the true.

From the English psychologist Donald Winnicott, we will apply the *theory of the transitional object*, starting from the hypothesis that the child's own support is comparable to the artistic phenomenon in gestation. Here we state the hypothesis that the transitional object can be considered the epistemological basis of all creative processes.

We will then analyse the thought of Irwin Straus, who founds a non-speculative aesthetic rooted in bodily movement. This is of great importance for understanding the corporeal manifestation of improvisation. It is from this profound relationship with movement that Straus establishes the difference between *feeling*, where the whole body participates, and *knowing*, where the bodily totality is reduced to a perceptive organ, virtualised or bracketed by conceptual thought and language. Straus elaborates his aesthetics on the basis of this ontological difference *Pathos/Gnosos*, presented by the author as irreducible. But this irreducibility cannot exist in artistic practice; as the creator knows well from experience in his daily work, both feeling and knowing must be applied when it comes to creative realisation. To paraphrase Manuel de Falla: "art is born in our heart, but it must necessarily pass through our head to become a reality". That is to say that a passage must operate between ontologically distinct categories so that the work can see the light.

This is the starting point of Anton Ehrenzweig, for whom *art is a conflict*, an unresolved contradiction between the syncretic and analytical visions of the creator. This model highlights an ontological rupture between two aspects of the creative self, a dichotomy of competing categories without which creation could not be realised. This is also the position of Theodor Adorno, for whom the confrontation in art takes place between, on one side, a musical material that we may call *neutral*, that which pre-exists the composer and constitutes his historical and cultural baggage, and, on the other side, a *polarised musical material*, product of his personal choice and selection. The result of this confrontation is what Adorno calls the *progress of musical material*. But this polarisation of the material can only take place through a *global intuition of form* that allows a direction to be given to the work. Adorno's concept of *Wahrheitsgehalt (Truth content)* appears here, the fictional horizon towards which the polarised musical material is directed.

The first part of this article concludes with an analysis of Edgar Morin's philosophy of complexity, whose guidelines will let us elaborate a synthesis of the textual exegesis carried out so far and, at the same time, they

will give us the elements to analyse the dichotomy score/musical work. The philosophy of Morin introduces the second part of this paper, the practice of improvisation and composition.

In the second part, *heuristic experience of creation*, the exploration of texts gives way to the description of an experience of creation based on improvisation, which is the reference we have taken from the beginning. The methodology becomes semiologic and heuristic, thus elaborating a kind of logbook that follows step by step the different moments of the creative process. An evolving notation allows us to determine at each moment the degree of precision of the ideas/images/actions, through the realisation of a musical composition based on improvisation. In the passage from artistic conception to development we have articulated the readings from the hermeneutic level, thus contributing to the elucidation of the moments of creative realisation.

PART ONE - HERMENEUTIC FUNDAMENTALS

I – Alexander Baumgarten (1714 – 1762): The artist creator of worlds

We owe to Baumgarten the transformation of the concept of aesthetics, which in the Greek philosophical tradition referred only to the ability to perceive stimuli through the senses. It is in the penultimate paragraph of his 1735 *Philosophical Meditations*¹ that this neologism appears, to be developed in his work *Aesthetica* appeared in 1750. Aesthetics becomes the science of taste, which must be educated, expanded and optimised to allow the discovery of Beauty. Following Aristotle, Baumgarten gives aesthetics the characteristics of a *techne*, rather than a theoretical knowledge. It consists of a proposal for action and realisation through a permanent exercise of taste; this is why it appears first, at the beginning of this first chapter, under the name “Heuristics”. The knowledge that emerges from the approach to Beauty is not a knowledge that produces concepts or definitions; it is a sensitive knowledge, analogous to rational or intelligible knowledge but qualitatively different. Thus, even while still accepting the Leibnizian and Wolffian notion of the sensible as the *confused intelligible*, Baumgarten distances himself from his illustrious predecessors by seeing a qualitative and radical difference between the intelligible and the sensible, at the very place where his masters considered only a difference of degree. This radical difference already appears in the *Philosophical Meditations*, where he differentiates between distinct and confused representations; the former were not poetic because of their “extreme dedication to the distinction of concepts”, while the latter “do not concern themselves with it, as this distinction lies beyond their sphere (§ XIV)”; this is the reason why only the latter are poetic (§ XV).

“Baumgarten thus claims a proper domain for aesthetic knowledge, which has its own criteria of excellence and which challenges the hegemony of logical knowledge, the only one recognized until then by the philosophy of the *Aufklärung*. Poetic invention therefore obeys its own laws, which are not those of mathematical invention.”² In principle, artists carry out an activity that is confused by nature. What they have in relation to their work *in statu nascendi* is, most of the time, a vague idea, without contours, imprecise, but clear enough to be able to constitute a starting point for the project. What is confusing in artistic activity is thus produced by the fact that it is born in a singular experience, not in a concept. Thus at the zero stage of a creation, artists can imagine globally what the result of their work will be, but they cannot specify the details of the construction. Their vision is global, statistical, even when it remains diffuse for the perception of details. For the complete and detailed completion of the work, the artists still have to go through a creative process. For this reason, art is essentially a heuristic activity, since the truth of its proposals is demonstrated *a posteriori*, pragmatically, through their realisation; the proposals cannot, therefore, be truths prior to implementation. In the case of a work of art, there is no definition prior to its creation. The craftsman, the manufacturer, the cabinetmaker, the cook, all start from a concept prior to the realisation (a finished project, a detailed plan, a recipe...) on the basis of which they carry out their work. The artist starts from a project in the process of being formed. By its very nature, this project is

¹ Alexander Gottlieb BAUMGARTEN, *Méditations philosophiques sur quelques sujets se rapportant à l'essence du poème*, french translation, presentation and notes by Jean-Yves Pranchère, Éditions l'Herne, Paris, 1988.

² « Baumgarten revendique ainsi un domaine propre pour la connaissance esthétique, qui a ses propres critères d'excellence et qui remet en question l'hégémonie de la connaissance logique, seule reconnue jusque-là par la philosophie de l'*Aufklärung*. L'invention poétique obéit donc à ses lois, qui ne sont pas celles de l'invention mathématique. »

Jacques DARRIULAT, « Baumgarten et la formation de l'esthétique », in *Introduction à la philosophie esthétique*, article en ligne in <http://www.jdarriulat.net/Introductionphiloesth/PhiloModerne/Baumgarten.html>

neither true nor false; it is subject to temporal changes, it evolves as it goes along, and it is situated in relation to the present in the realm of the plausible, of the probable. This last assertion legitimises the presence of fiction in art.

Baumgarten sees the poet, and *a fortiori* the artist, as a maker of possible worlds:

“[...] aesthetic truth is therefore plausible, not certain (Esthetics, § 483, p. 184), its logic is plausible, not necessary (Esthetics, § 485, p. 185). But insofar as it obeys the principle of invention, the poet's universe differs from ours, and its truth is "heterocosmic". Poetic inventions are indeed 'heterocosmic inventions' (Esthetics, § 505 to 514, p. 214, note 1), while remaining possible (incoherence is not, according to Baumgarten, poetic), which distinguishes the heterocosmic universe from the utopian universe (Meditations, § LII, p. 50 and Esthetics, § 530, p. 214, note 1).

[...] Heterocosmism substitutes fiction for reality; its knowledge is nonetheless aesthetic and not logical, whereby we understand that it is possible to reach the sensation (which is not the clear and distinct intelligence) of the possible unreal, thus freeing this faculty from its empirical limitation to the real world alone. The poet's art thus consists in making sensibly present to us a fictional world that exists nowhere, in making the virtual sensible and the invisible visible.”³

As a consequence, derived from Aristotle's original conception, Baumgarten's heterocosmism makes art a radically heuristic domain.

“[...] heterocosmic truths are aesthetic truths, neither more nor less numerous than the truths that can be perceived by the analogue of reason. This distinction is thought to be by Leibniz, but it is by Tibullus, who gave a long account of the wanderings of Odysseus ending as follows: "And this, either it was seen on our earth (it is true in the strictest sense), or the legend gave to these wanderings a new universe (it is true from a heterocosmic point of view).”⁴

Baumgarten's heterocosmism thus presupposes the existence of fictions in the aesthetic field. These fictions, it will be seen immediately, are rooted in the sense of change in the personality of the creators as their work becomes clearer. The work becomes a presence other than that of its creator, and at some point it seems to take control of its own making.

“In great art, and it is only in great art that we are talking about here, the artist remains, in relation to the work, something indifferent, almost as if he were a passage for the birth of the work, which would annihilate itself in the creation.”⁵ These fictions consist of a psychological appropriation where the boundaries between subject and

³ « [...] la vérité esthétique est donc vraisemblable, et non certaine (*Esthétique*, § 483, p. 184), sa logique est plausible, et non nécessaire (*Esthétique*, § 485, p. 185). Mais en tant qu'il obéit au principe d'invention, l'univers du poète diffère du nôtre, et sa vérité est "hétérocosmique". Les "inventions poétiques" sont en effet des "inventions hétérocosmiques" (*Esthétique*, § 505 à 514, p. 214, note 1), tout en demeurant toutefois possibles (l'incohérent n'est pas, selon Baumgarten, poétique), ce qui distingue l'univers hétérocosmique de l'univers utopique (*Méditations*, § LII, p. 50 et *Esthétique*, § 530, p. 214, note 1). [...] L'hétérocosmisme substitue la fiction à la réalité ; sa connaissance n'en reste pas moins esthétique et non logique, par où l'on comprend qu'il nous est possible de parvenir à la sensation (qui n'est pas l'intelligence claire et distincte) de l'irréel possible, affranchissant ainsi cette faculté de sa limitation empirique au seul monde réel. L'art du poète consiste donc à nous rendre sensiblement présent un monde de fiction qui n'existe nulle part, à rendre sensible le virtuel et visible l'invisible. »

Jacques DARRIULAT, *art. cit.*

⁴ « [...] les vérités heterocosmiques sont des vérités esthétiques, ni plus ni moins nombreuses que les vérités qui peuvent être perçues par l'analogue de la raison. On pense que cette distinction est de Leibniz, mais elle est de Tibulle qui avait fait un long récit des errances d'Ulysse se terminant ainsi : " Et cela, ou bien on l'a vu sur notre terre (c'est le vraie au sens le plus strict), ou bien la légende a donné à ces errances un nouvel univers (c'est le vraie d'un point de vue hétérocosmique)". »

Luc FERRY, French translation of the first paragraphs from Baumgarten's *Aesthetica*, in *Homo aestheticus, l'invention du goût à l'âge démocratique*, Grasset editions, Paris, 1988, p. 435.

⁵ « Dans le grand art, et c'est du grand art seulement qu'il est ici question, l'artiste reste, par rapport à l'œuvre, quelque chose d'indifférent, à peu près comme s'il était un passage pour la naissance de l'œuvre, qui s'anéantirait lui-même dans la création. »

Martin HEIDEGGER, « L'origine de l'œuvre d'art », in *Chemins qui ne mènent nulle part*, French translation by Wolfgang Brockmeier, Gallimard, 1962 for the translation, p. 42.

object are not clear. From this point of view, the child and the creator would seem to share a common root; this is Donald Winnicott's view.

II – Donald Winnicott (1896 - 1971): The work of art as transitional object

This theory, conceived on the basis of Winnicott's vast clinical experience, explains first of all the evolutionary stages through which the baby gradually abandons the identity with the mother, whom he or she feels as a part of himself or herself. Neither external nor internal, the transitional object will be able to introduce a progressive distance with the mother, thus contributing to the formation of the personality of the child and the adolescent.

“In a radical departure from earlier classical psychoanalytic theory, Winnicott postulates an intermediate area of experiencing, a potential space, between the world of shared external reality and the personal inner world. It is a space of illusion in which objects have both an autonomous external existence and a life in the inner world of the individual”.⁶

In the first period, characterised by Winnicott as subjective omnipotence, the baby feels that all its needs and desires will be fulfilled by the mother immediately. The mother's behaviour will progressively limit this feeling; the "good-enough mother", unable to satisfy the child's every whim, will unconsciously help the child to build an adult and independent psychological life. Here a gradual transition occurs, starting from the total fusion of the subject (the ego) with the external world (the mother, the not-ego) to the perfect separation and differentiation between the two. In this last phase of development, the ego and the not-ego come to constitute the levels of external and internal reality of the subject. But, to reach this stage of differentiation, the child must first produce an intermediate space, the transitional area, where he invests objects with projections and creates behaviours that compensate for the limits of his omnipotence.

“This intermediate area of experience, which is not questioned as to whether it belongs to external or internal (shared) reality, constitutes the major part of the toddler's experience. It will persist throughout life, in the mode of internal experimentation that characterises the arts, religion, the imaginary life and creative scientific work.”⁷

In line with Winnicott, we argue that the individuation process that children experience in their early years forms the epistemological basis of all creative processes. If we agree that the ego represents the fusional identity between the artist and his work before the creative process begins, and that the not-ego represents the artist's separation from his work at the moment when the work is finished, there is indeed an intermediate field between these two states of mind which is neither pure external reality nor pure subjectivity, but the two fused levels working together.

As in the case of children, the individuation of the artist is a journey between absolute identity and distancing. To allow for this transformation, a separation between being and its attributes, that is, between the artist and his production, must necessarily take place, so as to mediate between the self and the finished creation. This is expressed in the simple statement: "I am the creator of this work". In order to achieve this separation between the creator on the one hand and what is germinating in him on the other, creators do what children do with their games: they implement the unconscious and involuntary illusion of a split in their personality, which is absolutely essential for the realisation of the work. The composer has the feeling that the work alone commands the operations to be carried out for its realisation; it indicates the techniques, imposes the materials and the form.

“In any type of creative work, there comes a moment when our power of free choice ceases. The work takes on a life of its own, leaving the creator with the alternative of rejection or acceptance. A mysterious presence is then revealed which gives the work its own living personality.”⁸

⁶ Patricia TOWNSEND, *Creative States of Mind – Psychoanalysis and the artist's process*” Routledge, Taylor & Francis Group, London and New York, 2019, p. 9.

⁷ « Cette aire intermédiaire de l'expérience, qui n'est pas mise en question quant à son appartenance à la réalité extérieure ou intérieure (partagée), constitue la plus grande partie du vécu du petit enfant. Elle subsistera tout au long de la vie, dans le mode d'expérimentation interne qui caractérise les arts, la religion, la vie imaginaire et le travail scientifique créatif. »

Donald WINNICOTT, *Jeu et réalité*, French translation by Claude Monod et Jean-Bertrand Pontalis, Gallimard, 1975 for the translation, p. 25.

The finished work gives rise to a contradiction that sheds light on its true nature: on the one hand, it is the affirmation of the artist, who sees himself defined by it and is legitimised as a creator in the objective manifestation of his craft. But, on the other hand, the work is the negation of the artist; it is no longer one with him, it no longer belongs to his subjectivity, it is now the heritage of the world, it flies away to the domain of accomplished facts where the creator, pure act, pure process, cannot follow it. Moreover, if this negation did not take place, the potentiality of future works would be compromised, because the creator would remain chained to that work without being able to experiment with new creative processes, new possible identifications. This paradox helps us to understand that, within the creative domain, the principle of non-contradiction according to which a thing cannot be and not be at the same time, a postulate of any claim to truth in the experimental domain, must be put into perspective here. By advancing the philosophy of complexity, which we will analyse later, we can affirm that assertions in art can be true and false at the same time.

The end of the creative process is characterised by another paradox: precisely when the identification between the creator and his work should reach its optimal state, the piece is finished. The virtual split between creator and work has become real. From now on, the two are two autonomous and different entities.

All these seemingly contradictory effects occur because the position of the artist in relation to his work is not static, but varies at every moment. Between identity and separation, the creator psychologically carries out a movement, or, better said, a series of discontinuous movements that must be taken into account in order to truly understand his work.

As Erwin Straus argues, the very origin of art should be found in our motility, our condition as moving beings. According to him, we must consider bodily movement as the foundation of all aesthetics.

III – Erwin Straus (1891 – 1975): The corporeal movement as the root of feeling

“Aesthetics responds to a double obedience: either it is under the tutelage of speculative philosophy, whose investiture it has received and which continues to prescribe its horizon of truth by assigning to art its horizon of significance, or it is under the dependence of scientific models which, in order to put artistic experience into a programme, project the works of art into an objective-analytical perspective on various levels of experimentation, and thus, unknowingly, put the aesthetic dimension itself out of the game. Neither these presumptuous anticipations, nor this reductive positivism are in touch with "the works themselves", as they originally give themselves in the aesthetic relationship [...].”⁹

This quote is extremely eloquent. On the one hand, many philosophers have used aesthetics as a means to complement their various theories. By involving aesthetics in the philosophical project, the arts were mixed up in a discussion totally inessential for their existence.¹⁰

On the other hand, Gestalt theory (Kohler, Koffka, Ehrenfels among others), to which we will return shortly, explored the rules of perception in the hope that they could provide an objective and scientific basis for the elaboration of an aesthetic science.

⁸ « Dans tout type de travail créateur, en effet, vient un moment où cesse notre pouvoir de libre choix. L’œuvre prend une vie propre, ne laissant à son créateur que l’alternative du rejet ou de l’acceptation. Se révèle alors une mystérieuse présence qui donne à l’œuvre sa propre personnalité vivante. »

Anton EHRENZWEIG, *L’ordre caché de l’art*, French translation by Francine Lacoue-Labarthe et Claire Nancy, Gallimard, Paris, 1974, p. 121.

⁹ « L’esthétique relève d’une double obédience : ou bien elle est sous la tutelle de la philosophie spéculative dont elle a reçu l’investiture et qui continue à lui prescrire son horizon de vérité en assignant à l’art son horizon de significabilité, ou bien elle est sous la dépendance de modèles scientifiques qui, pour mettre l’expérience artistique en programme, projettent les œuvres d’art en perspective objective-analytique sur divers plans de l’expérimentation, et mettent ainsi, à leur insu, la dimension esthétique elle-même hors-jeu. Ni ces anticipations présomptueuses, ni ce positivisme réducteur ne sont en prise sur “les œuvres elles-mêmes”, telles qu’elles se donnent originellement dans le rapport esthétique [...]. »

Henri MALDINEY, *Regard, Parole, Espace*. « Le dévoilement de la dimension esthétique dans la phénoménologie d’Erwin Straus », Les Éditions du Cerf, Paris, 2012, p. 176.

¹⁰ Here we mention two famous examples of the use of aesthetics in order to strengthen the respective philosophical edifices: Kant’s *Critique of Judgement* and Hegel’s *Lectures on Aesthetics*.

All these efforts have tried to make us lose sight of the fact that art is made up of works, and that each work is a world in itself that has no reason to exist either in ordinations or in conceptual explanations. Neither nationality, nor geography, nor chronology are decisive factors to make us forget the individual value of each work. Styles for instance are the result of the current point of view from which we observe; it is this distance that allows us to classify Mozart together with Haydn as “classical composers”. For the listeners who were their contemporaries, the style we are talking about today was totally transparent; they did not see it because they could not distance themselves from it conceptually enough to define it. They lived in their style like fish in water. We may state here that styles are like forests. Seen from a distance, all the trees seem to form a whole, but as you get closer to one tree, you begin to see how it differs from the others.

The quotation from Maldiney reproduced below is part of his article presenting the work of Erwin Straus. According to this psychologist, there is, on the one hand, a conceptual thinking conveyed by language, at the origin of what we call knowledge. It is understood as the capacity to represent situations and things. On the other hand, Straus defines a pre-conceptual feeling that art mobilises - but not exclusively - by which we apprehend situations and things rather than representing them mentally.

The originality of Straus’ conception is to conceive feeling as a consequence derived from bodily movement, which manifests itself in a dynamic of union or separation, attraction or repulsion with things.

“The feeling being lives in the world and is destined, as part of this world, to unite with or separate from certain other parts of that world. Any act of separation or union is already, in the order of immanence, a being-moved, or better said, a being-in-motion. Consequently, movement and sensation are linked to each other by an intimate relationship that must be described and understood. The theory of sensation and the theory of movement cannot be treated separately, for in doing so, the processes of sensation are also separated from those of movement, their relationship is disturbed and it is necessary to give up restoring it”¹¹

Following Straus, for knowledge, conceptual thinking does not imply this internal connection with bodily movement; and therefore, the individual does not feel in unity with the knowledge he or she acquires. Traditionally, all knowledge would start from the original separation of the knowing subject and the real to be known, as a postulate. This leads us to the conception of a reality that is independent of the subject, and which pre-exists him or her. On the basis of this unprovable postulate, the object of knowledge and the knowing subject must necessarily be two different entities.¹²

“Knowledge seeks to grasp things as they are in themselves”.¹³

For this reason, progress in science takes place when the model of a particular reality that we are trying to describe is more accurate than another model to describe it.¹⁴ In knowledge, therefore, there is a need to search for truth, always subject to demonstration. Experimental verification is an essential part of validating the process. On the other hand, neither progress nor demonstration makes sense when we speak in terms of feeling. Despite all the theories he may involve in his creative process, the artist has nothing to demonstrate, since he

¹¹ « L’être sentant vit dans le monde et est voué, comme partie de ce monde, à s’unir à certaines autres parties de ce monde ou à se séparer de celles-ci. Toute acte de séparation ou d’union est déjà, à l’ordre de l’immanence, un être-mû, mieux, un être-en-mouvement. En conséquence le mouvement et la sensation sont liés l’un à l’autre par une relation intime qu’il importe de décrire et de comprendre. On ne saurait traiter séparément la théorie de la sensation et la théorie du mouvement, car ce faisant, on sépare aussi les processus de sensation de ceux du mouvement, leur relation se trouve perturbée et il faut renoncer à la restaurer. »

Erwin STRAUS, *Du sens des sens – Contribution à l’étude des fondements de la psychologie*, French translation by G. Thines et J.-P. Legrand, Jérôme Million editions, 2000 for the translation, p. 235.

¹² This principle was severely challenged by the Buddhist philosophy of Nagarjuna in the 3rd century AD. For him, neither the subject nor the real world exist separately, but are coupled and mutually meaningful.

¹³ Erwin STRAUS, *op.cit.*, p. 372.

¹⁴ A classic example: to explain the observation of the retrograde motion of the planets without taking into account the translation of the earth around the sun, the ancient Greek astronomy (Aristotle, Ptolemy) needed to elaborate a theory of epicycles of great complexity. The Copernican revolution first, by introducing the earth’s displacements, and Kepler’s elliptical orbital description afterwards, just simplified what was proving to be extremely complicated to explain.

does not seek an objective truth. His universality is subjective, what we call with Kant *intersubjectivity*, that is to say, what allows agreement between people without going through a definition or a concept.¹⁵

Perceiving and feeling

“With perceiving, which is the first level of objectification, we have already left feeling.”¹⁶

"Like all knowledge, perception requires a general objective medium. The world of perception is a world of things with fixed and changing properties in an objective and universal space and time."¹⁷

These two quotations are very important because they problematise the sensible/intelligible separation, that means the pillar of idealism in Western philosophy. That our perception is the first level of objectification, i.e., of knowledge, is a hypothesis confirmed by Gestalt Psychology, dismissing the kantian principle by which the perception of form would not produce syntheses. Perception leads us to form, a kind of prefiguration of the concept, already analysed by Ehrenfels in his writings of 1890.¹⁸ According to him, form is a whole qualitatively different from the sum of its parts, which allows its transposition: a melody, for example, cannot be considered as a simple sum of sounds; it can be transposed while always keeping its identity. Form leads us to a kind of proto-concept which, although neither clearly stated nor defined, functions as a transcendent objective framework on which we can agree.

“I claim that the cognitive operations designated by the term "thought", far from being the prerogative of mental processes occurring at a level far above and beyond perception, constitute the fundamental ingredients of perception itself. I am referring here to operations that consist of actively exploring, selecting, grasping what is essential, simplifying, abstracting, analysing and synthesising, completing, readjusting, comparing, solving difficulties, as well as combining, sorting, placing in a context. These operations are not the prerogative of a single mental function; they constitute the way in which the human and animal mind processes cognitive material, at whatever level. There is no fundamental difference in this respect between what happens when a person looks at the world directly and when he 'thinks' with his eyes closed. [...] It seems that there is no thought process that cannot be found at work - in principle at least - within perception.”¹⁹

Let us now assume that we are moved by the beauty of Ehrenfels' melody: here perception loses its individuality as a sensory channel and the interaction with our entire sensitive system manifests itself in a globality of feeling: touched by a piece of music, we grasp it from our fundamental thrill, with the whole of our being. In feeling, is the whole body that listens, sees, touches, associates, reacts and prepares to action.

¹⁵ One may recall here the 2nd definition of beauty from the *Critique of Judgement*:

“Schön ist das, was ohne Begriff allgemein gefällt“ (“Is beautiful that, which pleases universally without concept.”)

Immanuel KANT, *Kritik der Urteilskraft*, Suhrkamp Taschenbuch Wissenschaft, 14. Auflage, 1996, p. 134.

¹⁶ Henri MALDINEY, *op.cit.*, p. 189.

¹⁷ Erwin STRAUS, *op.cit.*, p. 376.

¹⁸ Christian VON EHRENFELS, « Sur les qualités de la forme », French translation by Denis Fisette, in *L'école de Brentano. De Würzburg à Vienne*, Librairie Philosophique J. Vrin, « Bibliothèque des Textes Philosophiques », Paris, 2007.

¹⁹ « Je prétends que les opérations cognitives désignées par le vocable “pensée”, loin d’être l’apanage du processus mentaux intervenant à un niveau bien au-dessus et au-delà de la perception, constituent les ingrédients fondamentaux de la perception elle-même. Je me réfère ici à des opérations qui consistent à explorer activement, à sélectionner, à appréhender ce qui est essentiel, à simplifier, à abstraire, à analyser et à synthétiser, à compléter, à réajuster, à comparer, à résoudre des difficultés, de même qu’à combiner, à trier, à placer dans un contexte. Ces opérations ne sont pas la prérogative d’une seule et unique fonction mentale ; elles constituent la manière dont l’esprit de l’homme et celui de l’animal traitent le matériau cognitif, à quelque niveau que ce soit. Il n’y a pas à cet égard de différence fondamentale entre ce qui se passe quand une personne regarde le monde directement et quand elle “pense” les yeux fermés. [...] Il semble qu’il n’y a pas de processus de pensée que l’on ne puisse trouver à l’œuvre — en principe tout au moins — au sein de la perception. »

Rudolf ARNHEIM, *La pensée visuelle*, French translation by Claude Noël et Marc Le Cannu, Flammarion, 1976 for the translation, p. 21.

The ontological brokenness of being: an awareness

As we can see, Straus highlights what we can call an ontological break between apparently irreducible levels of being: feeling produces what he calls a *pathic moment* of encounter where all thoughts, images and associations, indeed all the activity of being itself is polarised through a dynamic of attraction or repulsion of the feeling subject towards the thing felt. Here the boundaries between subject and object do not exist, or even if they do, they are not watertight. Knowing, for its part, takes the form of a *gnostic moment* in which the observation of the subject must ensure an objectivity that allows universal communication. Subject and object are delimited and watertight.

For Straus, there is no structural bridge between these two moments: one is a relationship to the totality of the world, dynamic, with an ever-changing reference to the object, since the subject is in movement as it approaches or moves away from the object. In the gnostic moment “we reach the in-itself of things”.²⁰ It is a relationship to the world where the subject's involvement is assertoric and subject to observation, with a support, language, mediating between it and the real.

But here we find a major difficulty:

How can we envisage the irreducibility of feeling in relation to knowing when we know that in the practice of creation both must work together very closely in order to complete the realisation? In other words, it is in the *Anwendung*, in the practical application of creation and not in speculative contemplation, that we must situate the scope of our research. If the work is in its nascent state a compact continuum, felt in its pure state, which progressively unfolds in the determination of an operative repertoire of actions and in a hierarchy that orders the eventuality, we must find an articulation that serves as a hinge, making possible the passage, even if discontinuous, between the terms of the categorical dichotomy *pathic moment/gnostic moment*. It is to the discovery of this articulation that the next issues of this first part will be dedicated.

IV – Anton Ehrenzweig (1908 – 1966): The creative conflict

In the creative situation, the splitting of the artist's personality, already identified in Winnicott's analysis of the transitional object, takes place. Indeed, creators see their personality divided: on the one hand, they are themselves and, on the other hand, they are the emerging work in evolution.

“I have already mentioned, and will continue to do so, the dialogical exchange that takes place between the creator and his work, and the need felt by the artist to treat his work as an independent being with an autonomous life.”²¹

Identification functions as recognition of their own image in the profile of their fictional double, the work. This is how a type of creative process is generated where artists are confronted with their materials within a dynamic of selective choice. The process I am talking about is not continuous and alternately produces the loss and recovery of identification with the work, i.e. moments when the artist accepts the work as his or her own image, and moments when he or she rejects it because he or she does not recognise himself or herself in it.

This conflict is explained by Ehrenzweig as follows: creators function in two different and alternative modes in order to complete their work. The first mode is a *syncretic vision* that can distribute materials in a global, non-hierarchical way. In this mode, the artist's attention is not focused, but diffuse. The vision of the work in gestation resembles a dream, without any concatenation between the materials, actions or situations proposed, without temporal or spatial references.

The syncretic vision is followed by an *analytical vision*, capable of introducing into the plot an event hierarchy, a kind of causality between the actions and a selection of the materials used. The analytical vision establishes rules and principles, distinguishes between content and form, and polarises the unfolding with a view to a possible denouement and end. The analytical vision is like the memory of a dream, where apparently

²⁰ Erwin STRAUS, *op.cit.*, p. 371.

²¹ « J'ai déjà évoqué et j'évoquerai encore l'échange dialogué qui s'instaure entre le créateur et son œuvre, et le besoin que ressent l'artiste de traiter son œuvre comme un être indépendant doué d'une vie autonome. » Anton EHRENZWEIG, *op.cit.*, p. 121- 122.

insignificant details disappear; it will round off the inconsistencies by producing the hypothesis of an ordered project.

“The original structure of a dream offers the apparent incoherence and chaos of the primary process, and when we try to recover it, we inevitably project a better gestalt, smoothing out the seemingly superfluous details and filling in the inconsistencies and gaps. It is simply impossible for us to remember the dream in its original, less differentiated structure.”²²

The characteristic attention of this second moment is precise and acute. As soon as it begins to work, the artist may no longer recognise her image in the previous syncretic layer she is ordering. A new syncretic vision may follow. It will introduce new elements and produce new arrangements of materials. This may be followed by a new analytical vision; the two visions will alternate until the work is completed.

Both visions, syncretic and analytical, are irreducible to each other, opposed by a dialogue that cannot be resolved by a synthesis; even the finished work is not the synthesis of the two, but a moment of provisional truce, which will end when a new work is in progress.

“Conscious thought is narrowly focused and strongly differentiated in its elements; the more we penetrate into the subterranean imagery and phantasms, the more the single path divides and branches out in unlimited directions to give its structure a chaotic appearance. A creative thought is able to oscillate between its differentiated and undifferentiated modes, and to harness them together to give them very specific tasks.”²³

It is therefore the conflict between the two visions that will generate the work, producing a selective spiral dynamic. In the syncretic phases, the creators experiment with their materials, play with them freely, combine them in all directions. They do not feel the need to make choices, they just “scan” their materials spontaneously. In the analytical phases, the creators find it difficult to recognise what they have achieved during the undifferentiated syncretic levels, and sometimes they reject their previous work as incoherent. But it is clear that the two visions, although they form a necessary dialogue of the creative process, are felt by the artist as two contradictory and totally different situations. The discontinuous passage between them is the fuel that gives impetus to the work.

In the field of music, it is Adorno who will conceive the conflict of creation in a similar way.

V – Theodor W. Adorno (1903 – 1969) : The musical material

For Theodor W. Adorno, the creative conflict takes place at the level of the transformation of the musical material. This allows us to distinguish, in the first place, a cultural and historical musical material prior to the composer, against which he must confront himself:

“The musical material can only be conceived as that with which the composer operates and works. In this sense, it is nothing less than, objectified and critically reflected, the state of the technical production forces with which composers are confronted in a given period.”²⁴

²² « La structure originelle d'un rêve offre l'incohérence et le chaos apparents du processus primaire. Lorsque, une fois réveillés, nous essayons de le retrouver, nous y projetons inévitablement une meilleure gestalt, aplanissant les détails apparemment superflus et comblant les incohérences et les brèches. Il nous est tout simplement impossible de nous rappeler le rêve dans sa structure originaire moins différenciée. »
Anton EHRENZWEIG, *op.cit.*, p. 115 – 116.

²³ « La pensée consciente est étroitement focalisée et fortement différenciée dans ses éléments ; plus nous pénétrons dans l'imagerie et les phantasmes souterrains, plus la piste unique se divise et se ramifie en directions illimitées pour donner à sa structure une allure chaotique. Une pensée créatrice est capable d'osciller entre ses modes différenciés et indifférenciés, et de les atteler ensemble pour leur confier des tâches bien précises. »
Anton EHRENZWEIG, *op. cit.*, p. 29.

²⁴ « Le matériau ne peut être conçu que comme ce avec quoi le compositeur opère et travaille. En ce sens, il n'est rien moins que, objectivé et réfléchi de façon critique, l'état des forces de production techniques auquel les compositeurs sont confrontés à une époque donnée. »
Theodor W. ADORNO, « Vers une musique informelle », in *Quasi una fantasia*, French translation by Jean-Louis Leleu, Ole Hansen-Løve et Philippe Joubert, Paris, Gallimard, 1982, p. 302.

We shall call this material neutral, because it is initially undifferentiated; it is historical and represents a given era and its circumstances.

This is how Adorno describes it:

“Material is what artists have at their disposal: what presents itself to them in words, colours and sounds, right down to associations of all kinds, right down to the various technical processes developed; to this extent, forms can also become material [...]”²⁵

Secondly, there is the material that is transformed as a result of the creative activity:

“[...] the musical material designates that which is given form in the composition, that on which the compositional gesture is exercised and which is essentially relative to it”.²⁶

To this other material we will call it *polarised*. To sum up: “musical material” has two meanings for Adorno: on the one hand, it refers to the cultural baggage that pre-exists the composer. On the other hand, it concerns what the composer brings to this historical material, what changes as a result of the confrontation between the inherited material and his own creative gesture. The difference lies in the mediation of the artist's compositional activity, which has not yet taken place in the first sense, but which comes into play in the second. From this remark, we can retain that everything can become polarised material, provided that it is subjected to the compositional process.

Progress of the musical material

For Adorno, the work is not a present, but a perpetual becoming; the transformation of neutral material into polarised. Between the present and the becoming, what he calls “the progress of the material” will take place, that is to say, all the transformations to which the composer will subject the neutral material at his disposal.²⁷

The “content of truth”.

In its polarised sense, the material is evolutive. It presents itself as an integral part of a creative process, and makes sense in relation to what it will become when the work is finished. This is more than the artist's intended purpose for his work; it is the *Warheitsgehalt* or 'truth content'. Adorno explains this essential fiction of composition as follows:

“Art can only be interpreted by the law of its movement, not by invariants. It determines itself in relation to what it is not.”²⁸

The fictional character of the “content of truth” is expressed *in absentia* by the material, in a metaphysics of music that seeks to express the inexpressible:

“What in the work of art transcends the factual, its spiritual content, cannot be associated with the particular sensible given, but is constituted by it. It is in this that the mediated character of the content of truth consists.”²⁹

²⁵ « Le matériau, c'est ce dont disposent les artistes : ce qui se présente à eux en paroles, en couleurs et en sons, jusqu'aux associations de toutes sortes, jusqu'aux différents procédés techniques développés ; dans cette mesure, les formes peuvent également devenir matériau [...] »

Theodor W. ADORNO, *Théorie esthétique*, French translation by Marc Jimenez, p. 209., Paris, Klincksieck, new edition, 1995, p. 209.

²⁶ « [...] le matériau désigne ce qui est mis en forme dans la composition, ce sur quoi s'exerce le geste compositionnel et qui lui est essentiellement relatif. »

Anne BOISSIERE, *Adorno, La vérité de la musique moderne*, Presses Universitaires du Septentrion, Université de Lille, 1999, p. 77.

²⁷ If we compare the *Philosophy of New Music* with *Aesthetic Theory* and Adorno's later works, we can see the evolution of the notion of “progress of musical material”, taken in the literal sense of the novelty of the material in the analysis of Schönberg's work, on the one hand, and in the sense of compositional exploitation of the material without regard to its objective novelty, (by Berg or Mahler), on the other.

²⁸ « L'art ne peut être interprété que par la loi de son mouvement, non par des invariants. Il se détermine dans le rapport à ce qu'il n'est pas. »

Theodor W. ADORNO, *Théorie esthétique*, *op. cit.*, p. 18.

As Raymond Court has noted:

“When Adorno qualifies the “content of truth” of his work as metaphysical, he means by this a meaning that is never second or retrospective, but resolutely non-empirical, prospective, in a word utopian.”³⁰

Similar to what we have seen by Ehrenzweig, Adorno's aesthetic thought presents itself as a discontinuous passage between two categories, the dichotomy neutral material/polarized material. A dynamic is established between the two; it is the progression of the musical material that will lead to the completion of the work. For this progression to exist, it is essential that a virtual horizon be set up in front of the piece in gestation towards which to direct the steps: this is the *content of truth*.

The hermeneutic research realised so far leads us to a global reflection on the conditions and possibilities of collaboration between the contradictory forces shown by the creator. This is the domain of the philosophy of complexity, the description and analysis of which is the subject of the next issue.

VI – Edgard Morin (1921): The creative complexity

The philosophy of complexity is based on three fundamental principles:

- 1– Dialogic,
- 2– Feedback/Recursion and
- 3– The Hologrammatic principle.³¹

1– Dialogic allows us to understand how two opposing principles can operate together without forming a synthesis. Within the same set, two or more terms can be both complementary and antagonistic. Thus, there is an underlying collaboration between two principles when they are opposed and we need both to advance a creative action, to describe a given situation or to solve a specific problem. They can remain contradictory and still be valid; they do not need to reach a synthesis. This is particularly relevant in art, where contradictory forces are a dynamic source that generates actions and behaviours that are assimilated to an achievement. Dialogic then refers to the maintenance of competing forces that do not achieve a synthesis. The work of art can thus be explained in terms of conflicting categories that produce a moment of pause in their perpetual contradiction.

2- feedback/recursion is the action that returns to the cause that originated it. It is the loop, which brings us back to the beginning of what we produce. But each time we apparently repeat the reference situation, imponderables specific to the realisation appear and enrich it. In other words, feedback allows the renewal of a conceptual iteration in practice.

Recursion, for its part, is what allows the role of cause and effect to be exchanged. This is what happens, for example, between imagination and artistic realisation, or between musical action and the graphic symbol that represents it.

3- The hologrammatic principle is the one that leads us to consider that the part and the whole are in permanent interaction. Not only does the whole contain the part, but the whole is also inscribed in the part. The classic example is that of the cells of an organism: they are part of it, but at the same time, each cell carries the genetic heritage of the whole. This is the organic coordination between macro- and microforms, represented in Mandelbrot's famous set of fractal geometry, where macro- and microforms are identical. In relation to musical composition, the ideal of electroacoustics in the 1950s - and later of spectral music - was the correlation between the evolution of the spectrum of a sound and the form of the work.

²⁹ « Ce qui dans l'œuvre d'art transcende le factuel, son contenu spirituel, ne peut être associé au donné sensible particulier, mais se constitue par celui-ci. C'est en cela que consiste le caractère médiatisé du contenu de vérité. »

Theodor W. ADORNO, *Théorie esthétique, op. cit.*, p. 184.

³⁰ « Quand Adorno qualifie de “métaphysique” le “contenu de vérité” de son œuvre, il veut désigner par là un sens qui n'est jamais second ni rétrospectif, mais résolument non- empirique, prospectif, en un mot utopique. »

Raymond COURT, *Adorno et la nouvelle musique*, Paris, Klincksieck, 1981, p. 6.

³¹ See the article by Jean-Louis LE MOIGNE, « Edgard Morin, le génie de la reliance », in <http://www.intelligence-complexite.org/fileadmin/docs/1511relianceEM.pdf>

The work and the score

We have already alluded, in Straus, Ehrenzweig and Adorno, to an ontological rupture between categories that participate in realisation.

We find this same rupture in the dichotomy of score and work. As we have seen, the dialogic allows us to envisage the articulation of concepts and principles placed in different ontological strata. In the field of music, we find a case in point: the score/work dichotomy. It is very important to clarify the difference between the two, since musical semiology, musicology and musical analysis of the second half of the 20th century are based almost exclusively on the score as a bulwark of musical objectivity, without taking into account the work and its imponderables of execution.

“Whether it be Schencker, Ruwet, Nattiez, etc., all the systems developed in recent decades have at least one common basis: the score (the "fetishism" of the score). Semiologists have certainly put forward the luminous idea of "tripartition", but it must be acknowledged that until now, with the exception of the neutral level, the other two members of the trinity have been largely neglected. So we are still left with what is accepted as self-evident: the analysis is carried out exclusively on the basis of the partition. This point may seem innocent: it is indeed innocent if one considers that the results of the analysis are of interest a priori only to the score (and to the analysts alone), but it is no longer innocent if, as is generally the case, one intends to draw conclusions from the analysis that are relevant to the musical level (and are therefore likely to be of interest to the musicians).”³²
There is a kind of control of the score over the work, which is why it is necessary to distinguish meticulously between these two terms, so as not to confuse what is a matter for the eye with what is a matter for the ear:

“Pierre Schaeffer reminded us on several occasions that music was made to be heard. It follows from the Schaefferian postulate that (so-called 'musical') analysis should take into account certain phenomena that manifest themselves at the level of listening. However, these phenomena are almost totally ignored by the majority of contemporary theorists and analysts, who (anxious to make themselves scientific - including objective, as far as possible) do not dare to trust the man who hears the music and take his testimony into account. [...] This attitude (which has been somewhat hastily described as scientific) reflects an ontological commitment, from which one would tend to consider music as an isolated phenomenon (a laboratory object), whose existence would be somehow independent of the man who hears it. [...] A first common-sense pedagogical approach would be, for example, to build the teaching of analysis, from its very first stage, on the idea that the facts that appear through the symbols of notation - thus 'objective' facts (which form the basis of traditional analysis) - are often transformed by perception, into other facts, and that an incongruity is thus created between what is perceived by the eye (and analysed) and what is perceived by the ear (and not analysed).”³³

³² « Qu'il s'agisse de Schencker, de Ruwet, de Nattiez, etc., tous les systèmes développés ces dernières décennies ont au moins une base commune : la partition (le « *fétichisme* » de la partition). Les sémiologues ont certes avancé l'idée lumineuse de « tripartition », mais il faut bien reconnaître que jusqu'ici, exception faite du niveau neutre, les deux autres membres de la trinité ont été largement délaissés. Nous en sommes donc toujours à ce qui est admis comme une évidence : l'analyse s'effectue exclusivement sur la base de la partition. Ce point pourra paraître innocent : il l'est effectivement si l'on considère que les résultats de l'analyse n'intéressent *a priori* que la partition seule (et les analystes seuls), il n'est l'est plus si, comme généralement, on entend tirer de l'analyse des conclusions qui visent à une pertinence sur le plan *musical* (et sont donc susceptibles d'intéresser aussi les musiciens). »

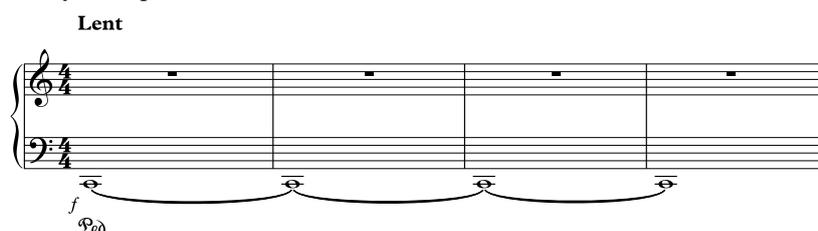
Vincent LAJOINE, « Impasses », in *Revue d'Analyse Musicale*, numéro spécial *Les réimpressions choisies 1985-1993*, p. 8.

³³ « Pierre Schaeffer nous a rappelé à plusieurs reprises que la musique était faite pour être entendue. Il découle du postulat schaefferien que l'analyse (dite « musicale ») devrait tenir compte de certains phénomènes qui se manifestent au niveau de l'écoute. Cependant, ces phénomènes sont presque totalement ignorés par la majorité des théoriciens et des analystes contemporains, qui (soucieux de se rendre scientifiques – dont objectifs, autant que faire se peut) n'osent pas se fier à l'homme qui entend la musique et tenir compte de son témoignage. [...] Cette attitude (qu'on a un peu hâtivement qualifié de scientifique) reflète un engagement ontologique, à partir duquel on aurait tendance à considérer la musique comme un phénomène isolé (objet de laboratoire), dont l'existence serait en quelque sorte indépendante de l'homme qui l'écoute. [...] Une première démarche pédagogique de bon sens serait, par exemple, la construction de l'enseignement de l'analyse, dès son tout premier stade, sur l'idée que les faits qui apparaissent à travers les symboles de la notation — donc des faits « objectifs » (qui constituent la base des analyses traditionnelles) — sont souvent transformés, par la perception, en d'autres faits, et qu'il se crée ainsi une incongruité entre ce que l'on perçoit par l'œil (et que l'on analyse) et ce qu'on perçoit par l'oreille (et qu'on n'analyse pas).

The score concerns the instructions necessary for interpretation; it is a schema from which the work is phenomenalised and re-actualised. Starting from this schema, the work acts as a perpetual becoming, always updated by the versions given to listen to. Confusing the score with the work minimises the importance of the versions, which, with all the avatars and imponderables inherent in interpretation, are ultimately what the public will know about the work, and what will make its critical judgement possible. If score and work were the same thing, there would be no reason for different interpretations.

“The musical work is characterised by dynamic and rhythmic properties, which, applied to the score, is meaningless. [...] the score does not enter into the existence of the musical work. It does not constitute a stratum of this work, it remains entirely outside it. This is why the score does not enter into consideration at the moment of apprehension of the musical work, which we grasp by directly listening to one of its interpretations without knowing the score at all, or without having to take note of it. This fact best demonstrates that the musical work is entirely different from the score. Even when we use a score to understand the work at the time of a performance, it remains, in the face of the work, an external entity that is subordinate to it.”³⁴

While the score ultimately presents a quantitative sum of parameters arranged in superposition, in the musical realisation these parameters are not superposed, but produce transformational correlations between them. Let us consider this elementary example:



In the acoustic reality, the note is in permanent dynamic evolution, since the components of the C spectrum interact with each other, in addition to the other partials of the other strings that come into resonance, as well as the formants of the piano soundboard. As a result, some partials predominate, others fade out earlier, and so on. The result is surprising: what the score indicates as a static, held note is, in reality, a multiplicity of interacting dynamic actions, an evolving energy of which we perceive different moments. While the score is an objective support, psychoacoustic reality is a system, understood as “an interrelation of elements constituting a unity or a global unit”.³⁵

In fact, the philosophy of complexity allows us to establish several facts that determine the difference between the score and the work in a clear-cut manner:

In the work, the whole is more than the parts

As in the case we have just seen, it is fundamental to observe that the musical parameters indicated in the score generate, in their psycho-acoustic interrelationship, a series of imponderable emergencies that only exist at the moment of the work's creation. These emergences constitute a transformational richness well beyond the parametric additions with which the score works. We thus arrive at a holistic conclusion characteristic of the philosophy of complexity: the whole is more than the sum of its constituent parts. For example, seeing a simple

Yizhak SADAÏ, « Analyse musicale : pour l'œil ou pour l'oreille ? », in *Revue d'analyse musicale*, numéro spécial *Les Réimpressions choisies*, 1985-1993, p. 15.

³⁴ « L'œuvre musicale se caractérise par des propriétés dynamiques et rythmiques, ce qui, appliqué à la partition, n'a pas de sens. [...] la partition n'entre pas dans l'existence de l'œuvre musicale. Elle ne constitue pas une strate de cette œuvre, elle reste entièrement en dehors d'elle. C'est pourquoi la partition n'entre pas en considération au moment de l'appréhension de l'œuvre musicale que nous saisissons par l'écoute directe d'une de ses interprétations sans connaître du tout la partition, ou sans avoir à en prendre connaissance. Ce fait montre le mieux que l'œuvre musicale est entièrement différente de la partition. Même lorsque nous nous servons d'une partition pour appréhender l'œuvre au moment d'une exécution, elle reste, face à l'œuvre, une entité extérieure qui lui est subordonnée. »

Roman INGARDEN, *Qu'est-ce qu'une œuvre musicale ?* Translation to French by Dujka Smoje, Christian Bourgois editions, 1989 for the translation, p. 69.

³⁵ Edgar MORIN, *La méthode*, tome 1, “La nature de la nature”, éditions du Seuil, Paris, 2008, p. 101.

rhythmic sequence written on paper tells us absolutely nothing about what happens when we play it, since all the other parameters of the music (pitches, articulations, dynamics, etc.) will be present in an underlying way in the phenomenal manifestation of what we mistakenly call pure rhythmic.

“Emergence is a new quality in relation to the constituents of the system. It has the character of an event, since it emerges discontinuously once the system has been constituted; it is of course irreducible; it is a quality that cannot be decomposed, and that cannot be deduced from previous elements. We have just said that emergence is irreducible - phenomenally - and inductible - logically -. What does this mean? First of all, emergence imposes itself as a fact, a phenomenal given that the understanding must first observe [...]. Even when it can be predicted from the knowledge of the conditions of its emergence, emergence constitutes a logical leap, and opens the breach in our understanding through which the irreducibility of the real penetrates...”³⁶

This reminds us that the musical phenomenon is unitary and inseparable

This reminds us that the musical phenomenon is unitary and inseparable in parts, fundamental information that the musical writing does not identify. It is the imponderables that arise from the interrelation between the parameters that are inherent in the performance. From the spontaneous interrelationships between the musical parameters, music is born, art is born.

“Let us suppose that we are in possession of an exhaustive theory capable of explaining all the phenomena concerning rhythm, another theory that would perfectly account for melodic phenomena, and a third theory, relating to harmony. Let us imagine that we apply these hypothetical theories to the second movement of Beethoven's Seventh Symphony. We discover, to begin with, a rudimentary rhythm, a primitive melody and an elementary harmony.

To try to understand by what mystery the combination of such ordinary data [...] is transformed into such extraordinary music [...] we would have had to be in possession of a correlational theory, the aim of which would be to explain the complexity of the relationships, not only between rhythm, melody and harmony, but between all the factors involved in the music.”³⁷

In fact, this quotation sums up the problem facing musical semiology and, with it, analyses derived from semiology. It also highlights the fundamental error of much 20th-century composition.

It is true that any explanatory discourse on the work is reductive, since it separates it into parts that do not exist in musical reality. But Sadai's quotation can also serve as a critique of integral serialism, which is based on the postulate that music is divisible into its constituent parameters, and that it can be reconstructed by superimposing these parameters. As a result of the ambient positivism of the second half of the 20th century, this attitude led to a fetishism of the material, where the music was merely a reflection of the score. In an effort to suppress any metaphysics of art, considered a vestige of Romanticism, the musical avant-garde confined itself to the positivism of the fixed, of the written word, without questioning the interaction of the materials between them. It was only at the end of the last century that a new metaphysics emerged, when the philosophy of complexity gained ground in art.

In the field of electroacoustic music, the fetishism of the material has led to a dead end, because novelty through pure novelty cannot be maintained indefinitely as the driving force of creation. The philosophy of complexity leads us to the obvious: novelty must come less from the absolute sound material than from the interrelation of materials.

³⁶ « L'émergence est une qualité nouvelle par rapport aux constituants du système. Elle a donc vertu d'événement, puisqu'elle surgit de façon discontinue une fois le système constitué ; elle a bien sûr le caractère d'irréductibilité ; c'est une qualité qui ne se laisse pas décomposer, et que l'on ne peut déduire des éléments antérieurs. Nous venons de dire que l'émergence est irréductible – phénoménalement – et inductible – logiquement -. Qu'est-ce à dire ? Tout d'abord que l'émergence s'impose comme fait, donné phénoménalement que l'entendement doit d'abord constater [...]. Même lorsqu'on peut la prédire à partir de la connaissance des conditions de son surgissement, l'émergence constitue un saut logique, et ouvre dans notre entendement la brèche par où pénètre l'irréductibilité du réel... »

Edgar MORIN, *op.cit.*, p. 108 – 109.

³⁷ Yizhak SADAI, *art.cit.*, p. 15.

In the work, the whole is less than the parts

“The whole is less than the sum of its parts: this means that qualities, properties attached to the parts considered in isolation, disappear within the system [...]. Internal determinism, rules, regularities, subordination of components to the whole, adjustment of complementarities, specialisations, feedback from the whole, stability of the whole and, in living organisms, regulation and control devices, systemic order in a word, translate into constraints.”³⁸

Just as there are emergences between parameters that are impossible to define, since they depend on the imponderables of the performance, the work also imposes imponderable constraints on the isolated instrumental performance that do not appear in the score. For example, a solo violin vibrato is not the same as a violin vibrato when it is part of the orchestra's violin line. This is true for all parameters, especially for the tuning of the orchestra, and applies to every instrumental action. In other words, the work has the power to make individual elements that detract from its totality necessarily disappear, by 'rounding off the edges'. This is how our perception of the constituent elements of a work works: the individual rough edges that stand out must necessarily be smoothed out in order to be able to perceive the whole. These are the very thresholds of perception, which give us a statistical, rather than punctual, apprehension of all the parameters involved in the music.

Common characteristics of emergences and restrictions in the work

By applying Morin's thought to the musical work, we can deduce that both the emergences produced in it and the restrictions it imposes on the material act as:

1. A series of qualities/properties that are not deduced from the qualities/properties of the elements that produce them.
2. A characteristic that comes into being at the moment of interpretation of the work.
3. An inherent and inseparable result of the work considered as a whole.
4. An unpredictable novelty in relation to the work's known sound materials.

The work is more and at the same time less than the parts

By virtue of what we have just said, the work turns out to be more and at the same time less than the sum of its constituent parts. The work is under (ontologically under) as the score.

This statements refute the principles of identity, non-contradiction and excluded third of Aristotelian logic, which means that any knowledge based on logic applied to music will be insufficient to access its most intimate sphere.

CONCLUSION OF THE FIRST PART OR INTRODUCTION TO THE SECOND PART?

A deep coherence emerges from the texts of the first part: Baumgarten's confused sensibility and his heterocosmia are recognized in Winnicott's transitional object, both in the subject-object indefiniteness and in the creation of a separate space, the particular world of the child's play and the adult's artistic object. The transitional object is more than a conscious choice, it is an encounter in which the subject appropriates the object that becomes irreplaceable. It is this condition of irreplaceability that we find in Strauss' feeling, where the whole body is involved. This is not the case with knowledge, which for him is circumscribed to conceptual thought and particular perceptual channels. And here we have detected a problem: Strauss does not give an answer to the question of the passage between feeling and knowing, which is indispensable to approach creation. These two categories are at different ontological levels and must be able to work together in order to make the artistic work. This passage will be taken up first by Ehrenzweig, in dealing with the discontinuous transit between the syncretic and analytical visions of the artist, and then by Adorno, in the transformation of neutral material into polarised material, thus generating the progression of the musical material towards the fictional horizon of truth content. The complex thought highlighted by Edgar Morin serves as a conclusion to this first part, especially with regard to the dialogic: we have found a principle that allows us to respond to dichotomies, where the binomial score-work also subsumes.

³⁸ « Le tout est moins que la somme de parties : cela signifie que des qualités, des propriétés attachées aux parties considérées isolément, disparaissent au sein du système [...]. Le déterminisme interne, les règles, les régularités, la subordination des composants au tout, l'ajustage des complémentarités, les spécialisations, la rétroaction du tout, la stabilité du tout et, dans les organismes vivants, les dispositifs de régulation et de contrôle, l'ordre systémique en un mot, se traduisent en autant de contraintes. »
Edgar MORIN, *op.cit.*, p. 112.

At the same time, the philosophy of complexity serves as an introduction to the second part. Indeed, musical improvisation highlights the second principle of the philosophy of complexity: feedback/recursion. Feedback is the looping action that occurs by returning to the improvisation in successive sessions. At each moment, imponderables arise which are assimilated into the music and enrich it from one improvisation session to the next. For its part, recursivity manifests itself in the impossibility of determining what is cause and what is effect between the creative imagination and the action which carries it out, or between the creative imagination and the notation of events.

The hologrammatic principle, on the other hand, characterises the composition resulting from improvisation: all the actions of the improvisers, as we shall see, are in principle equiprobable until the moment when the global intuition of the form imprints a hierarchy on the course of events. This hierarchy means that each individual action carries as a hologram the inscription of the work in its totality.

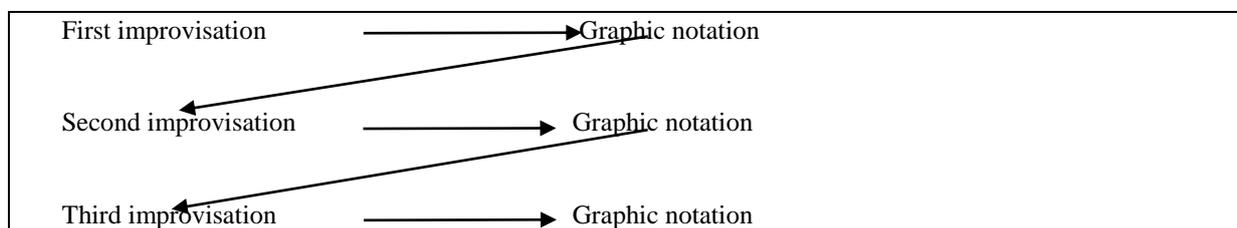
PART TWO - HEURISTIC CREATION EXPERIENCE

Here begins the description of the experiment which served as a justification for the first part of the article.

In order to put into practice the creative proposal of composing from improvisation; successive improvisations will provide imponderables in the form of new information about the materials, actions and behaviours in question (Morin's retrogression). In this way, the symbols are enriched by providing new information which is incorporated into the actions. But at the same time, the actions are enriched because new imponderables are added to each successive improvisation. In total agreement with what Baumgarten says, at the beginning, the improvisations are imprecise and diffuse in terms of content, and consequently the symbolic notation must also account for this imprecision. At the end of the creative process, the musical events will evolve, their contours can become clearer and their profile will become sharp, clear and defined. This effect of the temporal precision of events leaves traces in the symbolic notation, which must be able to express the greater or lesser precision of the events represented, thus allowing a tomographic cross-section of the degree of determination of the event corresponding to a precise moment. As with each new improvisation the sequence of events becomes clearer and clearer, the notation will express the comparative difference between the present moment and the one that follows. The process of creation results in the need for an evolving script, optimally adapted to the precision that this process demonstrates at each moment. There is a permanent feedback between improvisation and writing, by which the graphic symbols are enriched and consequently the improvisational actions are refined.

The fuel that sets this interaction in motion is the imponderables that arise from the realisation; this is why it is so important that the improvisation situation is repeated. As we see in the following graph, the improvisation feeds the graphic notation, which in turn feeds the second improvisation, and so on.

This dynamic of working in a constantly changing loop is repeated until the creative process is complete.



The last diagram, which corresponds to the final notation of events, will function as the final score of the work.

On individual musical improvisation

What is the improviser looking for? He/she is looking for a musical form, the product of a fundamental unity between his/her being, the actions he/she carries out, the technique he/she uses and the instrument he/she plays. This musical form is an encounter that must occur naturally; it cannot be forced, but it is possible to create the conditions for it to happen. These conditions are given by the repetition of the improvisation situation, that is to say by the repeated setting up of the improvisation situation. The magma of ideas, visions, fantasies, inner listening, etc. available to the improviser constitutes a formless corpus on which, sooner or later, the encounter with the form he/she is looking for will take place. It is the interaction between the gesture, the mime, the action of the whole body and the sound result.

In order to encourage this encounter, we propose as a working criterion a strict economy of means that will allow him/her to go to the essential in his/her research. This economy is complementary to the importance that the improviser attributes to silence as the source of origin, the end of the acoustic action and the alternative to discourse. As an origin, silence implies a concentration of attention on the inner hearing/representation, allowing the development of a necessary anticipation of the action. As an end, silence acts as a return to natural entropy; the acoustic action ceases while the imaginary representation can still continue. As an alternative to speech, silence replaces all superfluous gesticulation: it is better to remain silent than to engage in actions that do not lead to musical form. What are the superfluous actions? Those that, recalling Castaneda's Don Juan, "have no heart", even though they may be theoretically interesting in terms of sound material or novelty. But for the beginner, it is very difficult to distinguish between superfluous and essential actions. This is why it is so important for the person to make successive improvisations until the encounter takes place. This is a revelation, an epiphany, an immediate knowledge which allows him to say "Yes, that's it".

The approximate duration of an individual improvisation is at least 30 minutes. This is a statistical value: but it must be said that all the improvisations, with the exception of one, last about this length. The improvisations are filmed and/or recorded. Once at least two versions have been recorded, it is necessary to compare them. This comparison will make it possible to distinguish between superfluous actions and essential actions, between what corresponds to the magmatic and formless corpus which we have already mentioned, on the one hand, and the essential actions, on the other.

It often happens that the improviser finds several essential actions which, together, allow him/her to have a general idea of the form that his/her piece will take. From this point onwards, free improvisation becomes motivated improvisation, in other words it refers to the possibilities of combining essential actions. Among all the possible combinations, there will be one that "has a heart". This is adopted as the basis for the musical work in progress. From now on, the work focuses on the development of the essential actions, first separately and then as a whole, a development that always takes place while maintaining the formal support of the work. Naturally, questions arise about the relationship between the core actions: are there repetitions? are there intersections between them? And a complementary question, on which the marking of all or part of the work depends: what is the degree of determination of each essential action?

Motivated improvisations are also filmed and/or recorded for comparison and reference.

On collective musical improvisation

With the discovery of mirror neurons in 1996 by Dr Giacomo Rizzolatti and his team, empathy, mimesis and embodied knowledge of events finally find an explanation that goes beyond mere speculation. Neuroscience has developed remarkably over the years, allowing us to detect an intersubjectivity that functions as an invisible network of connections between people.

The case of collective musical improvisation is an example of this interconnection. The interaction of the participants functions as if they were a single individual, both in the execution of actions and in the individual and collective anticipation of future events. The participants in the improvisation are synchronised, anatomically and physiologically, forming a complex unit.

"Understanding the dynamics of improvising music together presents a daunting challenge. Collective improvisation can present situations that seem to exceed models of cognition and consciousness based on a Cartesian notion of the self and to defy simplistic understandings of a 'social contract' model of interaction in which each individual plays her or his predetermined part."³⁹

Below we describe a typical collective vocal improvisation session. Repeated countless times, the experiment was part of the music creation course developed at the Department of Music Studies of the University of Lille, France, between 1984 and 2014.

Number of participants: 4 to 10.

Duration of the session: about 45'.

Procedure:

³⁹ David BORGIO, "Strange loops of attention, awareness, action and affect in musical improvisation" in *Music and consciousness II: Worlds, Practices, modalities*. Ed. Ruth Herbert, David Clarke, Eric Clarke., Oxford Scholarship Online, 2019, chapter 6, p. 6).

Sitting in a circle, the participants remain silent for the necessary time (about 10 minutes). During this time, they try to listen and visualise internally the actions they are going to carry out. After this initial silence, which serves to “sacralise” the imminent arrival of the sound, one of the participants spontaneously launches a sound action, which he or she repeats. The other participants have the opportunity to break the silence in turn, or to continue to reserve their potential actions in silence. When they feel that their interventions become necessary, the participants enter the improvisation with the following options: 1) imitate the original action and/or the voices that appear, promoting a sound work similar to what they hear; 2) make a variation or a complement to what has already been heard; 3) create an alternative that cannot be deduced from the thematic material heard so far. In the sonic magma produced in the collective improvisation, there will be moments of order and tranquillity, where everything seems written and determined. Other moments of ambiguity or indecision of the group, where several thematic situations coexist without being resolved in one; different themes compete for supremacy, from the point of view of the number of voices that interpret them, without achieving it. In addition, continuous passages or intersections can occur spontaneously, with voices moving from one thematic situation to another, or producing abrupt changes. At some point, reformulations can play a very important psychological role, producing a sense of closure of form with which to infer the end or beginning of new thematic situations.

The improvisation ends spontaneously, without any indications from outside the experience. Any indication of duration imposed from outside the improvisation must be discarded; the duration is a consequence of the form that the group produces collectively.

The session is recorded and/or filmed, which allows a later critical evaluation, separating the formless magma from the essential actions. These can be symbolised graphically, indicating, if possible, what they mean to the group or the character the group attributes to them.

Successive improvisation sessions are carried out later by the same group. They are also recorded and/or filmed, which allows a comparative examination by discovering certain thematic situations which are repeated from one improvisation to another. These repetitions are in fact the starting point of the composition, which remains as an underlying substratum of the improvisations.

As in the case of individual improvisation, the essential actions that the films and/or recordings reveal move the meaning of the improvisation from freedom to motivation. In order to record the essential actions, motivated improvisations are also filmed and/or recorded. As in individual improvisation, a hierarchical order appears in the temporal arrangement of the essential actions, giving rise to a support which will serve as the backbone of the work. Everything that has been said about individual improvisation is valid here with regard to repeats, intersections and the degree of determination of the work during its production process.

On the evolving graphic score

We have already mentioned the fact that in order to create a musical composition from an improvisation, an evolving symbolism is necessary. Whereas in classical, romantic and contemporary composition up to the second half of the twentieth century, creation is what is done on the basis of a pre-existing musical writing which serves as a framework and within which the musical material evolves, in the improvisation which generates the musical composition, the notation is created with the work and its gestation is an indivisible part of the compositional process. It is necessary here to clarify the difference between sign and symbol. The sign, as we define it, is universally conventional. It determines the relationship of musical materials on the time axis without reflecting the individual characteristics of the sounds. The symbol, on the other hand, is not universally conventional⁴⁰ and bears a visual analogy to the characteristics of the symbolised sound material, either in timbre, intensity, attack and extinction transients, etc. In addition, the symbol individualises the sound material it represents.

Traditional music writing is strongly signative and not symbolic. As we have already said, in the nascent state of a work, sign notation is not operative because it is strongly determinative and cannot adapt to a musical idea either in its original state of indeterminacy or in its evolution towards determinacy.

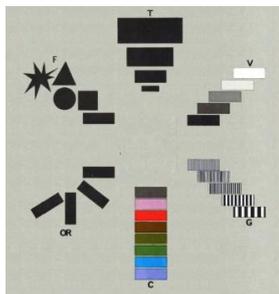
When this evolution has been completed and the optimal determination of ideas has been reached, it is then that traditional notation can be used without hesitation.⁴¹

⁴⁰ From the second half of the twentieth century onwards, avant-garde composition rejects conventions, implicit agreements between composer, performer and audience. For this reason, most contemporary scores must include an explanation of their symbols and ways of playing.

⁴¹ It is on this point that our reflection differs from that of Adorno, for whom traditional musical writing allows a thematic interweaving proper to what he considers a work, leaving out of the concept all unwritten sound production (jazz improvisation, electro-acoustic music, etc.).

The variables of the graphic representation

Symbolic representation is highly intuitive, and improvisers must educate their sensitivity to graphic representation through exercises. Jacques Bertin's⁴² classical theory of graphic representations can provide them with theoretical support for the development of symbols:



According to Bertin, the variables of graphic representation are: shape, dimension, grain, size, orientation and colour. To these should be added the orthogonal variables specific to the white sheet of paper, which in our culture traditionally represent height (vertical axis) and time (horizontal axis), read from left to right (which corresponds to the reading direction of Western languages).

Once the graphic sensitivity is developed, the improvisations will always be accompanied by their parallel graphic transcription, which functions as the “proto-partition” of the work. Ideally, the symbolic transcription should fit the improvisation like a glove to the hand. The symbols develop and become clearer as the musical events are concatenated. There is a continuous passage between the imaginary level of introjection and the symbolic level, a process which is always fed by the action of the improvisation. Each time the improvisation is carried out on the basis of the graphic diagram, it will incorporate new elements, it will make conscious new imponderables which, in turn, will have to be noted graphically. This evolution continues until the work is completed.

The process of creating a work is organised around two key situations, conception and development.

I – Conception

Improvisation is the implementation of an indefinite complex of images, actions, situations, memories, representations, affects, etc. Cornelius Castoriadis calls this complex the *radical imagination (imagination radicale)*

“The representations of an individual at any moment, and throughout his life - or better: the representative (affective-intentional) flow that an individual is, it’s first and foremost a magma. They are not a set of defined and distinct elements and yet they are not, purely and simply, chaos. One may extract or locate in it such and such a representation - but this operation is visibly, in relation to the thing itself, transitory (and even essentially pragmatic and utilitarian), and its result, as such, is neither true nor false, neither correct nor incorrect.”⁴³

See on this subject:

Ricardo MANDOLINI, « Adorno, ou la discussion qui n'a pas eu lieu » in *Musique, instruments, machines - autour des musiques électroacoustiques*. Texts collected and edited by B. Bossis,

A.Veitl and M. Battier, Actes du séminaire MINT ?, Université Paris IV, Sorbonne, 2007.

<https://www.motsetimages.fr/livre/320204-musique-instruments-machines-autour-des-musi--groupe-musicologie-informatique-et-nouvelles-t--musicologie-informatique-et-nouvelles-technolo>

—, “Adorno and avant-garde music”, in

International Journal of Multidisciplinary Research and Analysis

Volume 4 Issue 3 - March 2021

<http://ijmra.in/v4i3/10.php>

⁴² Jacques BERTIN, *Sémiologie graphique. Les diagrammes, les réseaux, les cartes*. Éditions Gauthier-Villars, Paris, 1967.

⁴³ « Les représentations d’un individu à tout instant, et le long de sa vie- ou mieux : le flux représentatif (affectif-intentionnel) qu’un individu est-, sont d’abord et avant tout un magma. Elles ne sont pas un ensemble d’éléments définis et distincts et pourtant elles ne sont pas, pur et simplement, chaos. On peut en extraire ou y

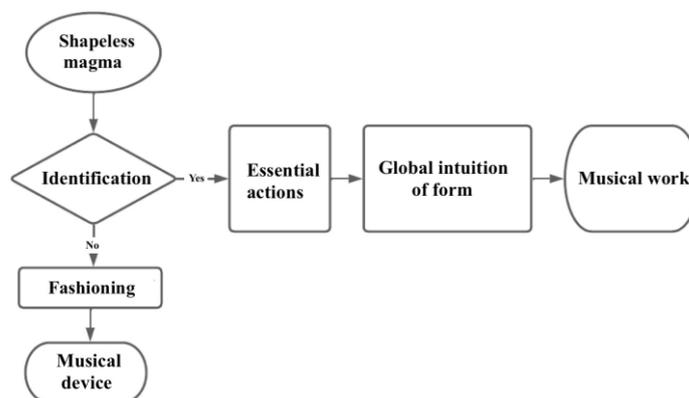
This is the first moment of creation. Now the improvisers must familiarise themselves with the material at their disposal by exploring the possibilities it offers. No improvisation action predominates over the others: they are all possible according to the principle of equiprobability. The experimentation situation is very important here. It must be reactivated during successive work sessions. The creator must experience this state many times, and be patient without trying to accelerate the process. It is, we insist, an ad lib moment of his choices where all values are interchangeable and equiprobable. They can be produced at the same time or successively. The creator does not choose the materials, but merely experiments or plays with them. This moment is the sweep of Ehrenzweig's syncretic vision.

The materials are accepted without apparent modification. As in the dream, the hierarchies and causalities between the materials do not exist; although, in a very vague or indefinite way, the unconscious of the improviser(s) has already produced a first statistical selection, because it is on these events and not on others that the composition will develop.

II – Development

Creative work, both in improvisation and in musical composition, can be exclusively circumscribed to the work of experimentation. It is to this state that Cage refers when he defines composition as an act of not wanting. Here it is important to make a distinction between Ehrenzweig's syncretic vision and Cage's experimental act. If the former is a genetic characteristic of the artistic process, the latter is a decision of the creator: he decides not to accept the possible chain of identifications with the material, he decides to create a device that functions as a framework within which the flow of events is indeterminate.⁴⁴ Here, the paths between the work and the device are separated: in the work, the development is produced by the real and virtual identification of the creator(s) with the actions that are performed and the musical materials that are produced. In the device, this identification has been deliberately interrupted. Development is the making of the device, like a violin maker when he makes his instrument. This is why the composer may be the first to be surprised by the sound results obtained, since he does not identify with them. Of course, there are ambiguities between the work and the device, and there can be an infinite number of variations and interactions. The history of music from the second half of the twentieth century to the present day is full of examples of collaboration between these two achievements.

The paths of identification



repérer telle représentation- mais cette opération est visiblement, par rapport à la chose même, transitoire (et même essentiellement pragmatique et utilitaire), et son résultat, comme tel, n'est ni vrai ni faux, ni correct ni incorrect. »

Cornelius CASTORIADIS, *L'institution imaginaire de la société*, Éditions du Seuil, 1975, p. 467.

⁴⁴ See on this subject

Ricardo MANDOLINI, "John Cage – The compositional heuristics of the non-intentional", in *American Journal of Humanities and Social Sciences Research* –Vol. 4 Issue 2 – April 2021.

http://www.theajhssr.com/current_issue.html

—, « L'autre vouloir, contributions critiques pour une meilleure compréhension de l'esthétique de John Cage », in *Revue d'Analyse* N° 49, December 2003.

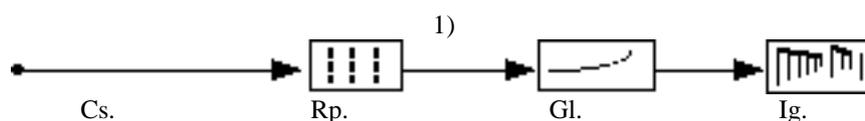
We will now focus on an identification that leads, through successive improvisations, to the composition of a musical work. We will take as a reference an experiment carried out by the students of the Bachelor's degree of the department of musical studies of the University of Lille III in 1986, which resulted in the creation of the *piece La trace imaginaire des Ailes* by two sopranos, a mezzo-soprano and two tenors.

From now on, the "logbook" of the experience begins:

a) The essential actions

Thanks to the assiduous work of improvisation, the group is beginning to be able to discern between actions with which it identifies and those with which it is indifferent. Analogous to what Adorno describes for the musical work, this identification is selective and indicates that the materials have ceased to be neutral and have become polarised. From now on, the progression of the material will begin, directed towards a horizon: the realisation of the piece.

At this stage, improvisation ceases to be free and is circumscribed to the work of developing the essential actions. The essential actions are represented by means of intuitive graphic writing, for example:



b) The global intuition of form

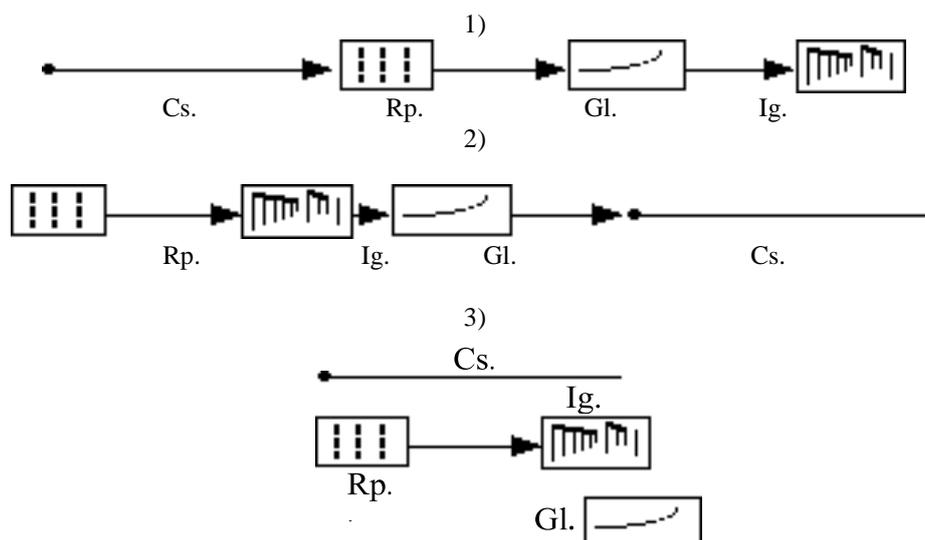
We have just discovered the essential actions that will give rise to the work. But developing them now shows its difficulties. The transition from Ehrenzweig's syncretic vision to his analytical vision is highly conflicting; the description of details loses the magic of the first moment. It is here that progressions, causalities, hierarchical relations, the difference between form and substance, definitions of the repertoire of instruments and actions, etc., appear. To allow the compact continuum of the first moment to transform into an operational repertoire, we must accept a moment of alienation where conception and development seem to have nothing to do with each other.

“Between the artist and his work there is something of a conversation. The medium, by frustrating the artist's purely conscious intentions, allows him to get in touch with the deepest parts of his personality and to bring them to the surface for conscious contemplation. In the struggle with his medium, the artist, having become a stranger to himself, struggles with the unconscious personality revealed to him by the work of art. To take back to the work, on a conscious level, what one has projected into it on an unconscious level, is perhaps the most fruitful and painful result of creativity.”⁴⁵

It is practice, the repetition of improvisation in successive sessions, which will allow all these new elements to be introjected into the creative unconscious. Thus a selection occurs quite naturally, separating the possibilities that remain confined to the framework of pure abstraction from those that are enacted, experienced as knowledge embodied by the group. All actions will have to be played, and combined in all possible arrangements, for instance:

⁴⁵ « Entre l'artiste et son œuvre il s'engage quelque chose comme une conversation. Le médium, en frustrant les intentions purement conscientes de l'artiste, lui permet d'entrer en contact avec les parties les plus enfouies de sa personnalité et de les faire remonter à la surface pour les livrer à la contemplation consciente. Dans le combat qu'il livre à son médium, l'artiste, devenu étranger pour lui-même, se débat avec la personnalité inconsciente que lui révèle l'œuvre d'art. Reprendre à l'œuvre, à un niveau conscient, ce qu'on y a projeté à un niveau inconscient, est peut-être le résultat le plus fructueux et le plus douloureux de la créativité ».

Anton EHRENZWEIG, *op. cit.*, p. 93.



etc.)

By dint of working and trying, all of a sudden one of the combinations made with the essential actions will ignite a flame, will produce an epiphany in the group, will be experienced as an immediate collective revelation. The global intuition of the form has just burst into the composition.

“It is this resonance, together with the artist’s presentiment that he will be able to create an artwork related to this sensation, that constitutes the experience that I call ‘pre-sense’. The artist has the sense of something significant that cannot yet be apprehended clearly.”⁴⁶

This intuition will serve as a support or guide for the complete realisation of the work.

Continuing the description of the current composition, the global intuition of form was symbolically represented as follows:

First graphic representation



From now on, the free choice of possible dispositions of the essential actions is supplanted by this form of sequential determination, which will function as a formal support for improvisation and for the realisation of the work.

The hermeneutic basis explored earlier is applicable here: the work is not only the result of the improvisation, but also the result of the work's creation, which is the result of the improvisation.

The hermeneutical foundation explored earlier is applicable here: 1) Winnicott's theory of the transitional object, as the epistemological basis of all creative processes; 2) Morin's retrogression-recursion, present at each reactivation of the improvisational situation, producing imponderable emergents; 3) Adorno's polarised material, which will progress towards the completion of the future work between the actual state of the work (actual state of the work is perhaps the most appropriate formulation) and its fictional projection, the content of truth ; 4) Straus's pathic moment, establishing a qualitative difference between material in whose presence the whole body is mobilised in a non-conceptual way, and material that is perceived only through the specific channels of the senses, verbalisable and conceptualisable as abstract knowledge. 5) Furthermore, Baumgarten's confused intelligibility plays a fundamental role here, relating the fiction to the development of the work; to paraphrase Wittgenstein, this intuition is global, even if it cannot be precise in detail.

⁴⁶ Patricia TOWNSEND, *op.cit.*, p. 9.

Here are two transversal hypotheses that will not be developed here: I) Feeling, which according to Straus is rooted in the movement of attraction and repulsion, could explain the transformations of Adorno's material from neutral to polarized and its progression towards the realization of the work; II) Baumgarten's *heterocosmia*, could it be another way of calling Adorno's *truth content*? In both cases, it would be the creation of a world of the work's own, an opening towards subjective universality.

Setting up the development

The development concerns: A) the individual evolution of the essential actions B) the repetitions C) the intersections D) the precise definitions of events. Each of these strata will produce a new graphic representation in which the progress of the musical material will be gradually marked, until the final score is reached.

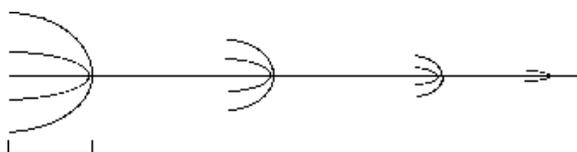
A) Individual evolution of essential actions

Improvisation is now limited to the essential actions which will be specified, going from the general/abstract to the particular/concrete. Here again, a selection is made by identification: of all the possible glissandi, all the repetitive rhythms, all the irregular groups, etc., the improviser(s) will choose those they feel identified with, discarding the infinite number of possibilities.

– First essential action (glissandi).

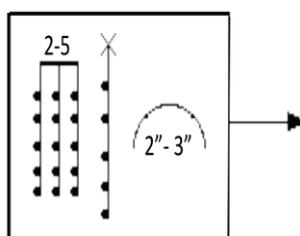
These are “fan-shaped” glissandi whose chords evolve towards a fixed pitch. The duration of the first glissandi is estimated at about 2". The intervals of the glissandi become progressively narrower. The fixed pitch is in the middle register of the voices; the tempo of the section is slow.

About 2"



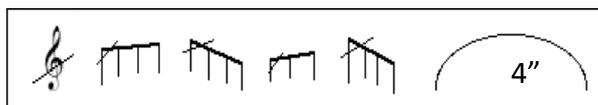
– Second essential action (regular pulsations)

a) Repetition of 2-5 unisons on a fixed pitch. This action is followed by b) the abrupt and accentuated opening of a chord, followed by a 2-3 second pause. The tempo of the section is slow (± 2 actions per second). The actions use phonation. A pause follows, separating the groups (2 to 3 seconds) This logic is repeated.



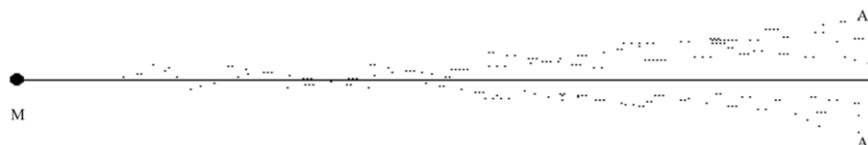
– Third essential action (irregular groups)

Fast, asynchronous groups, produced without phonation, lasting 3 to 5 seconds each followed by a pause of (at least 4")



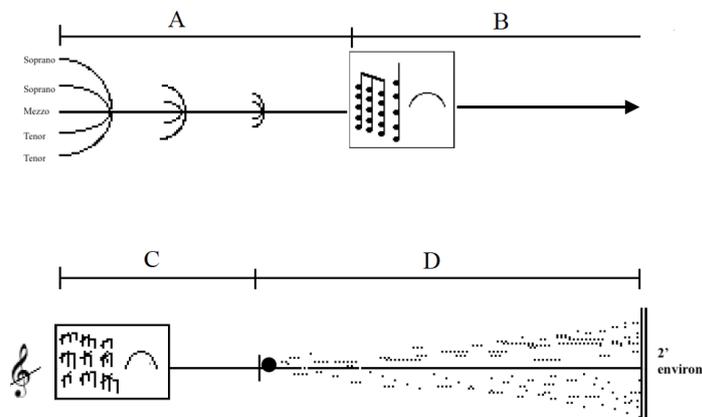
– Fourth essential action (continuous sound)

The voices of the quintet start from a unison with *ad.lib.* harmonics, produced by the progressive opening of the mouth, from the pronunciation of the consonant M (closed mouth) to the vowel A (open mouth).



We note that the global intuition of the form has developed: the distribution of the voices in the quintet appears. We begin to glimpse an approximate overall duration of two minutes, knowing that it will serve as a starting point for the durations that will evolve successively throughout the work.

Second graphic representation



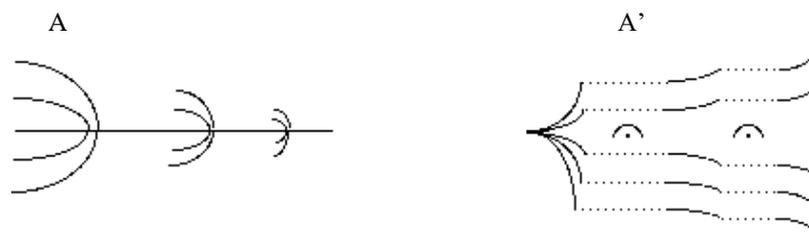
B) Reprises

The recapitulation of events in the improvisation is a fundamental element of development, because the sense of closure of the musical form depends on its use.

The psychological value attributed to events plays a very important role here. The repetition of an event will give rise to a repetitive form or an ostinato; an alternative recapitulation between different events determines most of the classical forms studied at the conservatory (sonata, rondo, suite, theme with variations, etc.).

Details of reprises incorporated to the current composition:

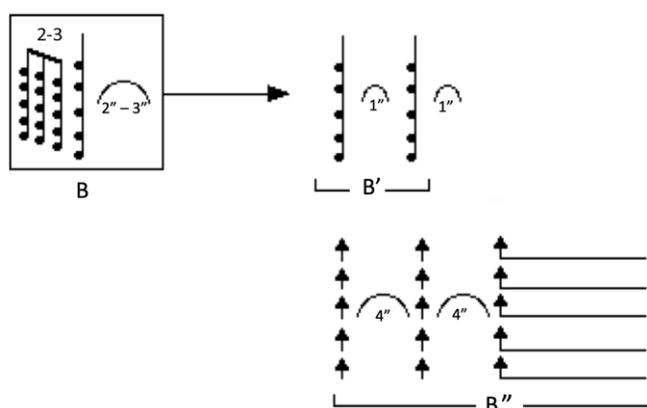
A – A'



A' has an inverse configuration to A. Here, the glissandi openings are separated by long pauses (about 3 seconds).

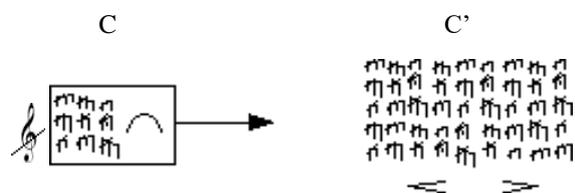
Estimated duration of A': about 10 seconds.

B – B' – B''



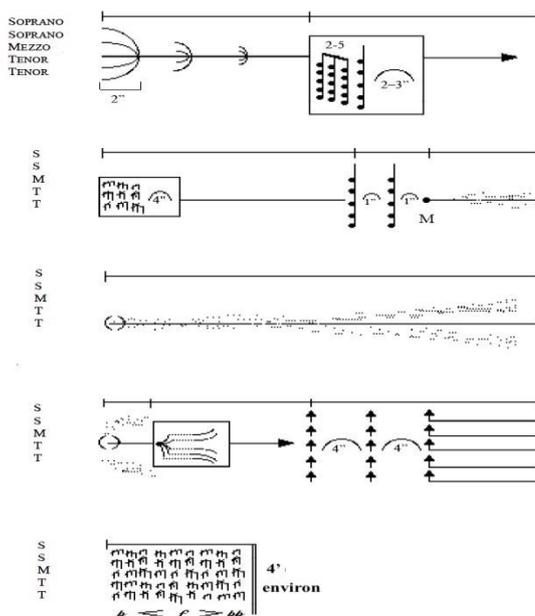
By keeping the synchronous and repetitive structure of B, B' reduces B by eliminating its closed chords. The pauses between each action are now shorter (1 second). For its part, B'' works with the extreme registers of the five voices. The last sound of B'' is a held chord of ad lib duration.

C – C'



In C', the actions are affected by a dynamic crescendo/diminuendo curve and the pause disappears. Estimated duration 15''.

Third graphic representation

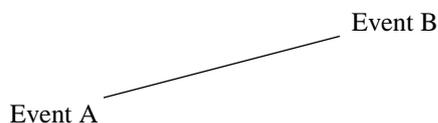


C) Intersections

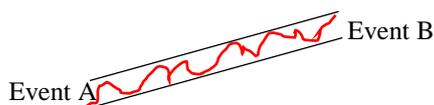
It can be said that there are two possible modes of passage between two events and their derivatives: one, in which the time taken to occur is equal to 0. That is, the passage takes place abruptly, giving rise to the awareness of distinct characteristic events.



The other mode of intersection is where the time to occur is not equal to 0. That is, the transition has a duration to take into account. In this case, the following questions arise: How long does the transition last? What will be its modality? Note that the intersection forms are theoretically infinite.



They can be linear, but also random:

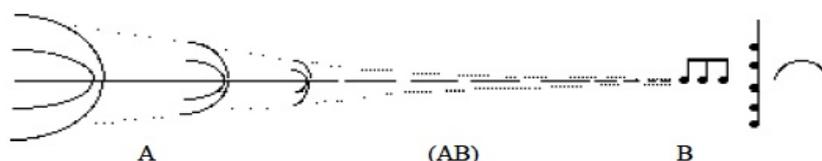


Of course, it is necessary for the intersections to participate to the general identification process already described, thus leaving the domain of the mere abstract to be implemented as incarnate knowledge to the other elements of the improvisation.

Details of intersections incorporated to the current composition:

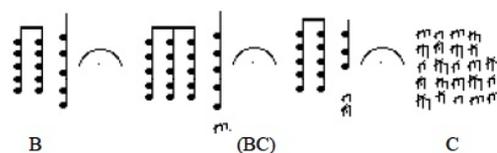
Intersection (AB)

The continuous sound towards which the glissandi of A converge begins to be affected by increasingly long pauses, thus preparing the short rhythmic actions of B.



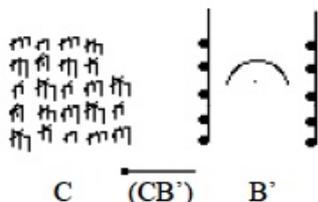
Intersection (BC)

Start of irregular actions of C in canon, over the regular rhythms of B.



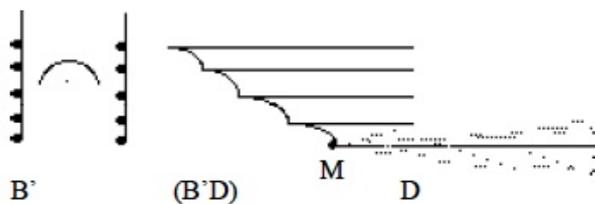
Intersection (CD)

A continuous sound acts as a bridge between sections C and B'.



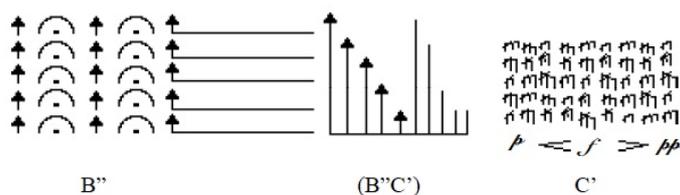
Intersection (B'D)

Transformation of the unison of B' into an arpeggio. The lowest sound of the sung arpeggio, *bocca chiusa*, is already the continuous sound of the D section.

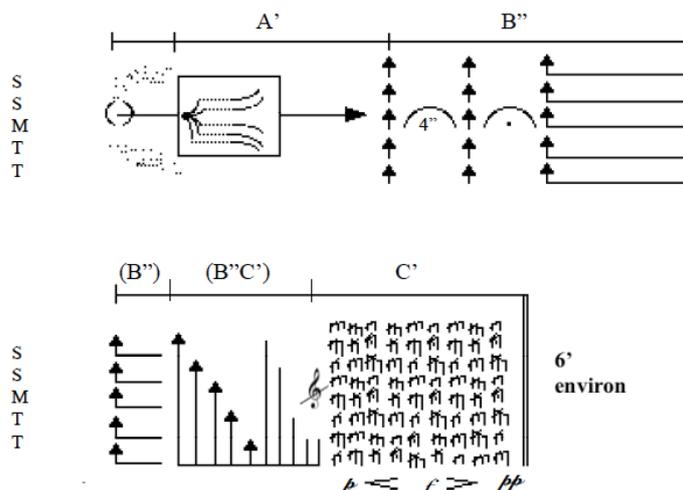


Intersection (B''C')

Arpeggio presentation of the extreme pitches in unison, followed by voices of indeterminate pitch, preparing for C'.



Fourth graphic representation



D) Precise definitions of events

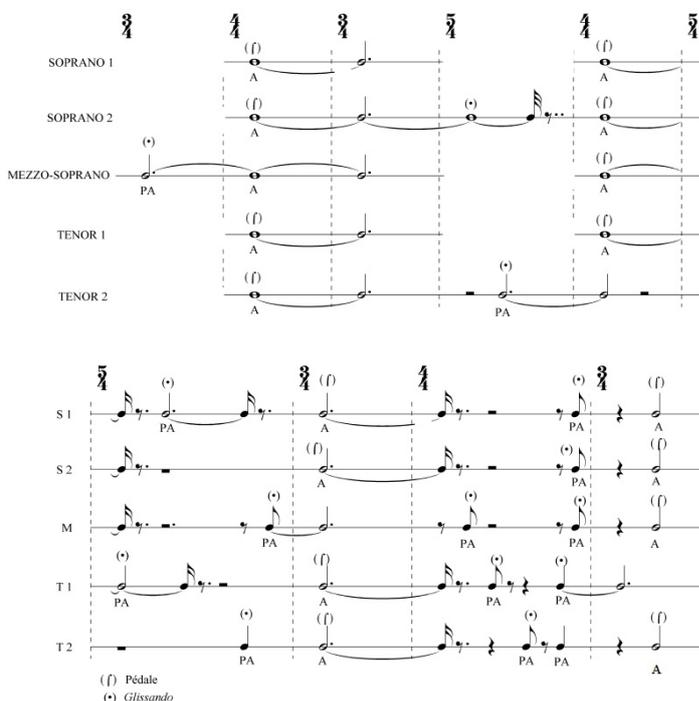
At a certain point in the development, the degree of precision of the events is defined. Here it may be necessary to introduce traditional writing, which is probably the most perfect system available for determining rhythmic synchronizations and pitch arrangements. Of course, when it comes to micro-intervals it is possible to use a suitable graphic system.

1) Section A and intersection (AB)

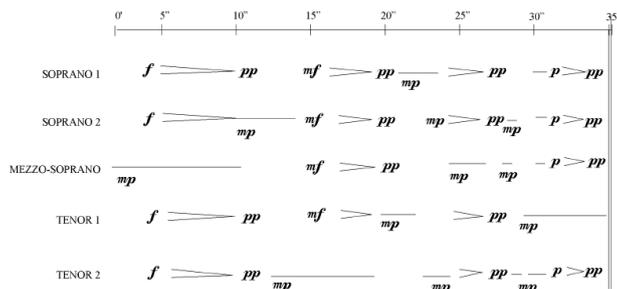
a) Harmonic-melodic shape:



b) Rhythmic, articulatory, timbral shapes, distribution of actions:



c) Dynamic shape

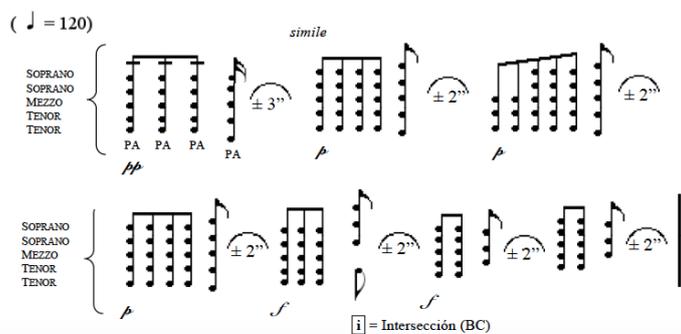


2) Section B and intersection (BC)

a) Harmonic-melodic shape:



b) Rhythmic, dynamic, articulatory, timbral shapes, distribution of actions:



3) Intersection (CB'), section B' and intersection B'D')

a) Harmonic shape (fixed notes)

SOPRANO
SOPRANO
MEZZO
TENOR
TENOR

c) Rhythmic, dynamic, articulatory, timbral shapes, distribution of actions:

(♩ = 40) (♩ = 80)

1) Intersección (CB')
2) Sección (B')
3) Intersección (B'D)

4) Section D:

Dynamic shape, voices:

10"

(*) Respiración, apertura de la boca *ad libitum*

5) Section A':

a) Harmonic-melodic shape:

b) Rhythmic, dynamic, articulatory shapes:

(♩ = 60)

Plicas hacia arriba : *glissandi*

After the evolutionary process described above, here is the final score of the piece *La trace Imaginaire des Ailes*:

La trace imaginaire des ailes

♩ = 60

Classe de Création Musicale de Ricardo Mandolini,
Departement des Etudes Musicales, Universidad de Lille 3, 1986.

The score is divided into two systems. The first system includes parts for Soprano, Mezzo-soprano, and Tenor. The second system includes parts for Soprano, Mezzo-soprano, and Tenor. The score features various time signatures (3/4, 5/4, 4/4) and dynamic markings such as *f*, *mf*, *mp*, and *p*. Performance instructions include accents (*^*) and breath marks (*PA*). A large black rectangular mark is present on the left side of the page, overlapping the first system.

♩ = 120 2

Articulación simile

Soprano
PA PA PA PA
pp

Soprano
PA PA PA PA
pp

Mezzo - soprano
PA PA PA PA
pp

Tenore
PA PA PA PA
pp

Tenore
PA PA PA PA
pp

Soprano
p *mp*

Soprano
p *mp*

Mezzo - soprano
p *mp*

Tenore
p *mp*

Tenore
p *mp*

3

Articulación simile

Soprano
PA PA PA PA

Soprano
PA PA PA PA

Mezzo-soprano
PA PA PA PA

Tenor
PA PA PA PA

Tenor
PA PA PA PA

* ad lib. [P t q s sh f]

Soprano
ff mf

Soprano
ff mf

Mezzo-soprano
ff mf

Tenor
ff mf

Tenor
ff mf

4''

5

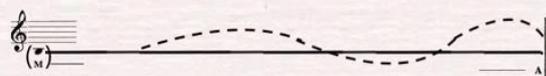
The image shows a musical score for five voices: Soprano, Mezzo-soprano, and Tenor (two parts). The top section displays pitch contours for each voice part, with a dashed line indicating the melodic path. The dynamic marking *mp* (mezzo-piano) is present for each part. The bottom section provides a detailed musical notation for the Soprano, Mezzo-soprano, and Tenor parts, including lyrics and performance instructions. The tempo is marked as $\text{♩} = 60$. The lyrics are: "A — LA — LA — LA —". The score includes dynamic markings such as *cresc.* and *sfz*. There are also performance instructions for the vocalists, including "4''" and "5''" with arrows pointing upwards, and "X" marks above the notes. The Tenor parts are marked with *sfz* at the end.

*Muy rápido,
sorpresivo* 6

The score consists of two systems. The first system shows five vocal staves (Soprano, Soprano, Mezzo-soprano, Tenor, Tenor) with a single note on each staff, marked 'PA'. Below the staves, a dynamic marking *sfz p* transitions to *fff*. To the right, a graphic shows five vertical lines of increasing height, each labeled 'PA', with arrows pointing upwards from the bottom. Below this graphic is a list of phonetic characters: $\left[\begin{matrix} p \\ t \\ q \\ s \\ sh \\ f \end{matrix} \right]$ with 'ad lib.' written to the left.

The second system shows the same five vocal staves with complex rhythmic patterns of vertical lines and slurs. Dynamic markings *p*, *fff*, and *ppp* are placed below the staves, with a large triangle indicating a dynamic range from *p* to *ppp*.

Symbols



Progressive and random opening of the mouth, producing natural harmonics.



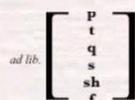
Highest possible note, pronouncing the syllable "pa"



Indeterminate pitch, pronouncing the syllable "pa"



Actions without phonation



Ad lib. irregular groups over the indicated consonants.

CONCLUSION

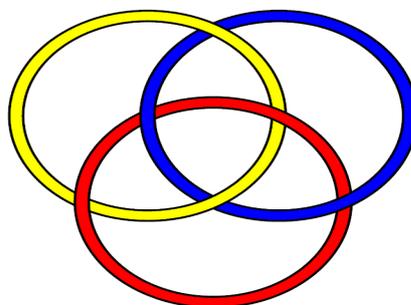
We were initially tempted to conclude the article by saying that, like the spokes of a bicycle wheel which all converge from the rim to the central hub of the wheel, the six numbers of the first part of the work also converge towards the practical realisation of improvisation and musical composition. But in reality, what is happening is much more complex than this metaphor suggests: it would perhaps be more accurate to compare the relationship between the numbers of the first part with the path of the sephiroth from the Jewish Kabbalah, "the different degrees through which the Creator transmits his light". As in them, as we go on reading the hermeneutical foundation, we discover new aspects of the same thing, which intertwine, interact and feed off each other. In other words, when reading one of the authors mentioned, we cannot fail to take into account what we have already learned from the others.

The second part of the article is no exception to this work of inclusion; it is the continuation and implementation of the same logic. But hermeneutics opens the way and prepares the creation, it does not justify it. Indeed, art

does not need justification: it is autonomous and indefinable, ineffable in conceptual terms of cause and effect. Like life, creation does not tell the truth, it is the truth manifested by its own action.

Under these conditions, what hermeneutic interpretation attempts to do is to demarcate the mysterious and imponderable part of all creation, which remains totally impervious and indifferent to analysis, from another part that can be elucidated and analysed, by trying to push back the frontiers of the original mystery to the confines of the explicable.

By bringing together the traditionally separate theoretical and practical fields, this article attempts to highlight the fruitful relationship between them, demonstrating the importance of their dialogical collaboration that enriches both reflection and realisation.



Like the Borromean knot, where no ring can be separated from another without the whole unravelling, pedagogy, creation and research constitute, in art in general and music in particular, an inseparable whole, the true meaning of which is given by the holistic functioning and not by the isolated value of the elements.

BIBLIOGRAPHY AND WEBOGRAPHY

1. ADORNO, Theodor W., « Vers une musique informelle » in *Quasi una fantasia*, French translation by Jean-Louis Leleu in collaboration with Ole Hansen-Løve and Philippe Joubert, Paris, Gallimard, 1982.
2. ———, *Théorie esthétique*, Paris, Klincksieck, 1995, new edition, translation by Marc Jiménez.
3. ARNHEIM, Rudolf, *La pensée visuelle*, French translation by Claude Noël et Marc Le Cannu, Flammarion, 1976 for the French translation.
4. BOISSIERE, Anne, *Adorno, La vérité de la musique moderne*, Presses Universitaires du Septentrion, Lille University, France, 1999.
5. BAUMGARTEN, Alexander Gottlieb, *Méditations philosophiques sur quelques sujets se rapportant à l'essence du poème*. Translation, presentation and notes by Jean-Yves Pranchère, éditions l'Herne, Paris, 1988.
6. BERTIN, Jacques, *Sémiologie graphique. Les diagrammes, les réseaux, les cartes*. Gauthier-Villars, Paris, 1967.
7. BORGO, David, "Strange loops of attention, awareness, action and affect in musical improvisation" in *Music and consciousness II: Worlds, Practices, modalities*. Ed. Ruth Herbert, David Clarke, Eric Clarke., Oxford Scholarship online, 2019. <https://oxford.universitypressscholarship.com/view/10.1093/oso/9780198804352.001.0001/oso-9780198804352>
8. CASTORIADIS, Cornelius, *L'institution imaginaire de la société*, Éditions du Seuil, 1975.
9. COURT, Raymond, *Adorno et la nouvelle musique*, Paris, Klincksieck, 1981.
10. EHRENFELS, Christian von, « Sur les qualités de la forme », French translation by Denis Fisette, in *L'école de Brentano. De Würzburg à Vienne*. Librairie Philosophique J. Vrin, « Bibliothèque des Textes Philosophiques », Paris, 2007.
11. EHRENZWEIG, Anton, *L'ordre caché de l'art*, French translation by Francine Lacoue-Labarthe and Claire Nancy, Gallimard, Paris, 1974.
12. DARRIULAT, Jacques, « Baumgarten et la fondation de l'esthétique » in *Introduction à la philosophie esthétique*. <http://www.jdarrulat.net/Introductionphiloesth/PhiloModerne/Baumgarten.html>
13. FERRY, Luc, *Homo aestheticus. L'invention du goût à l'âge démocratique*, Grasset editions, Paris, 1998.

14. HEIDEGGER, Martin, « L'origine de l'œuvre d'art », in *Chemins qui ne mènent nulle part*, French translation by Wolfgang Brockmeier, Gallimard, 1962 for the French translation.
15. INGARDEN, Roman, *Qu'est ce qu'une œuvre musicale?* French Translation by Dujka Smoje, Christian Bourgois editions, 1989 for the French translation.
16. KANT, Immanuel, *Kritik der Urteilskraft*, Suhrkamp Taschenbuch Wissenschaft, 14^{ème} edition, 1996.
17. LAJOINE, Vincent, « Impasses », in *Revue d'Analyse Musicale*, special number *Les réimpressions choisies* 1985-1993.
18. LE MOIGNE, Jean-Louis, « Edgar Morin, le génie de la reliance », on line in <http://www.intelligence-complexite.org/fileadmin/docs/1511relianceEM.pdf>
19. MALDINEY, Henri, « Le dévoilement de la dimension esthétique dans la phénoménologie d'Erwin Straus » in *Regard, Parole, Espace*, Les Éditions du Cerf, Paris, 2012.
20. MANDOLINI, Ricardo, « Adorno, ou la discussion qui n'a pas eu lieu », in *Musique, instruments, machines – autour des musiques électroacoustiques*. Edition by B. Bossis, A. Veitl et M. Battier. Proceedings of the seminar MINT ?, Paris IV University, Sorbonne, 2007. <https://www.motsetimages.fr/livre/320204-musique-instruments-machines-autour-des-musi--groupe-musicologie-informatique-et-nouvelles-t--musicologie-informatique-et-nouvelles-technolo>
21. ———, “Adorno and avant-garde music”, in
22. *International Journal of Multidisciplinary Research and Analysis*
23. Issue 4 Number 3 – March 2021. <http://ijmra.in/v4i3/10.php>
24. ———, “John Cage – The compositional heuristics of the Non-intentional”, in *American Journal of Humanities and Social Sciences research* –Vol. 4, Issue 2 – Avril 2021 http://www.theajhssr.com/current_issue.html
25. ———, « L'autre vouloir, contributions critiques pour une meilleure compréhension de l'esthétique de John Cage », in *Revue d'Analyse* N° 49, December 2003.
26. MORIN, Edgar, *La méthode*, Issue 1, « La nature de la nature », Éditions du Seuil, Paris, 2008.
27. SADAĬ, Yyzhak, « Analyse musicale : pour l'œil ou pour l'oreille ? », in *Revue d'analyse musicale*, special number *Les Réimpressions choisies*, 1985-1993.
28. STRAUS, Erwin, *Du sens des sens – Contribution à l'étude des fondements de la psychologie*. French translation by G. Thines et J.-P. Legrand, Jérôme Million editions, 2000 dor the Frnch translation.
29. TOWNSEND, Patricia, *Creative States of Mind – Psychoanalysis and the artist's process*” Routledge, Taylor & Francis Group, Londres et New York, 2019.
30. WINNICOTT, Donald, – *Jeu et réalité*, French translation by Claude Monod and Jean-Bertrand Pontalis, Gallimard, 1975 for the French translation.