

With Varèse at the Equator

by Brian Kane

Ecuatorial was composed in 1933-1934, after *Ionisation*, and marks the end of a large period of creative work. After this piece, between 1934 and 1949, Varèse wrote only *Density 21.5* (1936) and *Étude pour espace* (1947). *Déserts* (1949-1954) is the only piece of comparable length and density. In addition, *Déserts*, like *Ecuatorial*, tries to integrate the use of acoustic instruments and electronic sound. The piece is originally composed for 4 trumpets, 4 trombones, Percussion, Organ, Piano, 2 Theremins and Bass voice.

The use of the Theremins in the original score is significant. By 1927, Varèse was interested in the use of electronic instruments, in particular, the Dynaphone, invented by Renè Bertrand, and the instruments invented by Leon Theremin. For the composition of *Ecuatorial* Varèse had Theremin build two instruments to his specifications, with a massive range that extended all the way up to 12,544.2 Hz (G9). According to a statement of O. Vivier, during the work with Theremin, Varèse asserted: "I will compose no more for instruments to be played by men: I am inhibited by the absence of adequate electronic instruments for which I conceive my music."¹ In the second version of *Ecuatorial*,

¹ Vivier, O., *Varèse, Solfèges*, Seuil, Paris, 1973, p. 113.

the Theremin-instruments were replaced with two Ondes Martenots. Another change was the shift from a single bass voice to a small bass choir singing in unison.

Varèse must have felt certain problems with the balance between the instrumental ensemble and the bass voice, which required the substitution of the solo voice for a small choir. In fact, at the premiere of the piece at Town Hall in New York, April 15, 1934, Chase Baromeo sang the solo bass part with amplification through a loudspeaker. At the next performance of the work, in 1961, the score had been rewritten for 8 solos singers, but according to Vivier, Varèse himself was still unhappy with this change and seemed to prefer the solo version once again.

But what may be the most important feature of the work is its use of both electronic and acoustic instruments. Quoting Stoianova:

Ecuatorial is the first piece in the history of music of the 20th century in which the fusion of acoustic and electronic sounds was attempted. The crossing of the border - between tone and noise, between instrumental and electronic sound, between music and speech, between dynamics and rhythm, between harmony and tone color, etc. - that defines an especially important direction in the composition-research of the last 30 years, was pre-programmed in Varèse's *Ecuatorial*. It would not be an exaggeration to assert that his proposal for the instruments and for the music of the future - which were still utopian at that time - have been successfully realized by the "Recherche musicale".²

² Stoianova, Ivanka, "Edgard Varèse: *Ecuatorial*", *Melos*, vol. 48, no. 4, 1986, p. 59. Stoianova's article is the only article dedicated solely to an analysis of *Ecuatorial*, a fact which registers the strange reception of *Ecuatorial* in Varèse's body of work. Stoianova's article has been crucial in its role as an interlocutor for the interpretations in this paper, yet, like many of the commentators on Varèse's work, Stoianova falls into many theoretical traps by treating Varèse's crystallization

We can see Stoinova's rather enthusiastic view of Varèse's role in the history of music from this quote.

A discussion of the text's history³

The first information Varèse gives us concerning the text is from the Preface to the score:

The text of *Ecuatorial* is taken from the sacred book of the Maya Quiché, *the Popol Vuh* (in the Spanish translation of Father Jimines), and is part of the invocation of the tribe lost in the mountains, having left the "City of Abundance." The title is merely suggestive of the regions where pre-Columbian art flourished. I conceive the music as having something of the same elemental rude intensity of those strange, primitive works. The execution should be dramatic and incantatory, guided by the imploring fervor of the text, and should follow the dynamic indications of the score.

What is the *Popol Vuh*? According to Adrian Recinos, "The *Popol Vuh* is...the Sacred Book of the Quiché Indians, a branch of the ancient Maya race, and contains an account of the cosmogony, mythology, traditions, and history of this native American people, who were the most powerful nation of the Guatemalan highlands in pre-Conquest times. It is written in an exalted and elegant style, and is an epic of

metaphor without critical skepticism. All translations from Stoianova are mine.

³ The history of the text used in *Ecuatorial* has quite a long and involved history. The following section briefly outlines some of the important vicissitudes of this history in order to ask the historical question concerning what information and access Varèse may have had to the text.

the most distinguished literary quality."⁴ Another important source on the *Popol Vuh* is anthropologist Hubert Howe Bancroft: "Of all American peoples, the Quichés of Guatemala have left us the richest mythological legacy. Their description of the Creation as given in the *Popol Vuh*, which may be called the national book of the Quichés, is, in its rude strange eloquence and poetic originality, one of the rarest relics of aboriginal thought."⁵ There is an interesting similarity in the language Bancroft and Varèse use, both describing the poetry of the *Popol Vuh* as "rude" and "strange". This suggests the possibility that Varèse may have looked at Bancroft's book in order to study the context of the *Popol Vuh* in its native setting, although without further investigation this claim should only be only taken as merely possible.

At the beginning of the 18th century, Father Francisco Ximénes, of the Dominican Order, lived in the convent of Chichicastenango in south-western Guatemala.⁶ He had learned the indigenous tongue and was a scholar of the history of the region. In 1707 he encountered the text of the *Popol Vuh* and transcribed it into a bilingual document: with the Quiché on the left and with a Spanish translation on the right.

⁴ *Popol Vuh: The Sacred Book of the Ancient Quiché Maya*, from the translation by Adrián Recinos, tr. into English by Goetz and Morely, University of Oklahoma Press, 1950, p. ix.

⁵ Bancroft, Hubert Howe, *The Native Races of the Pacific States*, vol. III, San Francisco, 1883, p. 42.

⁶ For a systematic history of the discovery and translations of the *Popol Vuh*, see Recinos' introduction.

But the document Father Ximénes translated already possessed a long and involved history. This document was not written in the ancient, partially pictorial, partially alphabetic script of pre-conquest Quiché, but in a Latinized, wholly alphabetic script. Hence "this document, written shortly after the Spanish conquest by a Quiché Indian who had learned to read and write Spanish, is generally known as the *Popol Vuh*...and it contains the cosmological concepts and ancient traditions of the aboriginal American people, the history of their origin, and the chronology of their kings down to the year 1550."⁷ It is believed that this version was written to replace older versions of the text that may have been destroyed during the Spanish Conquest of the 1520's. After Ximénes finished his transcription he says that he returned the original document, which has never been recovered.

There is a long history of the publication of various versions of the *Popol Vuh* throughout the 19th and early 20th centuries. However, all versions are based on the transcribed Quiché of Father Jiménes' manuscript. For our purposes, there are only three main sources available at the time of the composition of *Ecuadorial*: 1) the 1857 edition in Spanish, published in Vienna by Dr. Cal Scherzer, 2) the French edition of 1861, published and translated by the Abbé Brasser de Bourbourg, 3) excerpts found in *Leyendas de Guatelmala* by Miguel Angel Asturias.

⁷ Recinos, p. 5.

Asturias (who won the 1967 Nobel Prize in Literature) was born in Guatemala, but studied Mayan religion at the Sorbonne with George Reynaud in the late '20s. In 1930 he published a slim volume called *Leyendas de Guatemala*⁸ which featured short, primitive, surreal tales based on the ancient myths of the Mayans and indigenous Guatemalans. The book was translated into French immediately and sent to Paul Valéry, who was greatly impressed by the work, and whose letter to the French translator was used as the preface to the French edition. Doubtless, Valéry's influence helped to draw attention to the work:

These legends have made me completely intoxicated. Nothing appears as exceptional to me as these stories-dreams-poems, in which presentations of faith, fairy-tales and the needs of a mixed people from ancient times flow together so strangely, all the products of a landscape both intoxicating and lying ever in the throes of death, in which the various powers, which testified to life only after it had erected the scenery from rocks and soil, are still ever-menacing and fertile...under the strokes of a catastrophe, to create new connections and new forms of being.⁹

Moreover, Varèse possessed a copy of the *Leyendas* signed by the author: "For E. Varèse, master and magician of sound, these legends of Guatemala, with all my admiration and affection."¹⁰ In fact, the text set in Ecuatorial is a slightly reworked and shortened version of the ancient

⁸ The edition I refer to is: Asturias, Miguel Ángel, *Leyendas de Guatemala*, ed. Alejandro Lanoël, Ediciones Cátedra, Spain, 1995.

⁹ From Valéry's preface as quoted in Stoianova, pp. 60-61.

¹⁰ Stoianova, p. 60.

prayer recited in the story "Ahora que me acuerdo" from the *Leyendas* on pp. 93-94.¹¹

This leads us to two significant conclusions. First, Varèse chose the least historically accurate text available, by choosing Asturias' literary reworking of the *Popol Vuh*. Second, because of the fact that other versions were available, especially the French translation in Varèse's mother tongue, we must conclude that he chose the text which most suited his artistic interests. **The text is a reworking of Asturias' modernist, surrealist, and primitivist version of Ximenes' translation of a post-Columbian text, which was written in an archaizing style to replace a missing, or destroyed, pre-Columbian original.** This is no insignificant fact. The layers of historical sedimentation that are involved in the reception and appropriation of the *Popol Vuh* become significant for Varèse and Asturias in distinct ways.

Asturias, being Guatemalan, uses the myths and symbols of the *Popul Vuh* for a specific purpose: according to Prieto,

Once the teaching of each legend is glossed over, the meaning of the ensemble becomes clear: The country's cultural patrimony is not lost but neglected. In order to retrieve it, only one thing is needed: resolution. The artist's words will pave the way for the recognition and reinstatement of this safeguarded patrimony. Once the men and women of Guatemala grasp his message, their country will enter a new era conceived as an actualization of the past.¹²

¹¹ Varèse's text is reproduced with a translation as Appendix I.

¹² Prieto, René, *Miguel Angel Asturias's Archaeology of Return*, Cambridge, 1993, pp. 64-65. Prieto's book is one of the few books in English that discuss the *Leyendas* in relation to the other, more overtly political, novel of Asturias. A good discussion of Asturias' use of

Asturias, interested in the political and economic future of indigenous peoples in Guatemala, discovers an artistic solution to recovering, and revitalizing, the lost "patrimony" authorized in texts such as the *Popol Vuh*. At first glance, this seems a wholly different world from the concerns of Varèse, who is "merely suggesting the regions where pre-Columbian art flourished". But from another perspective, both Varèse and Asturias may be working from a similar point of view. When we think about the historical and economic background against which the Leyendas were written - namely, the early organization of modern capital, which helped to produce the political disaster of Guatemala in the 1910's and 1920's - there is the possibility of seeing some sort of sympathy. Both are dealing with the "disenchantment of the world" (as Max Weber was fond of quoting, after Schiller)¹³: Asturias, in the nationalist and political question of patrimony, and Varèse in the musical, poetic and utopian terms of both his writings and compositions. I do not mean to suggest that Asturias and Varèse are identical puppets controlled by "the ruse of reason", rather, merely to argue that the distinct interests that both have in appropriating the *Popol Vuh* may be unique

specific imagery and cosmological ideas taken from the *Popol Vuh* follows the passage cited. The emphasis on the specificity of Asturias' appropriated symbols contrasts with Varèse's more casual reference nicely.

¹³ Weber, Max, "Science as a Vocation," in *From Max Weber: Essays in Sociology*, ed. Gerth and Mills, Oxford University Press, 1946, p. 155.

and individual reactions to the "spiritual" manifestations of the same social and economic crisis.

In many ways, I think that Valéry's comments about the *Leyendas de Guatemala* and Varèse's setting of the text, as distinct from Asturias' nationalist goals, aim in similar directions. My thesis is this: I think that the preoccupation with catastrophe, or with the intertwining of both procreative and destructive forces in the *Leyendas*, concerned both Valéry and Varèse deeply. In the primitivism of the *Popol Vuh*, historically written after the catastrophe of the Spanish conquest, a good modernist like Varèse (or Asturias for that matter) sees an affinity with his own present circumstances. An anxiety about the future, about the "survival of the tribe" manifests itself musically in a work like *Ecuatorial*, and, as I will argue, especially in its coda.

Form and Stoianova's Argument

Orchesterpart			Bassstimme und Orchester				Orchester-Nachspiel
A	B	C	D	E	F	G	A i j
Seite 1 - 6	7 - 11	11 - 14	14 -	23 23 - 31	31 - 36	36 -	53 53-54 54-55 55-56
Takte 1 - 29	30 - 46	47 - 51	53 -	93 94	151 152 -	153 154	241 242-245 246-247 248 249
Exposition			Entfaltung / Inszenierung			Quasi-Reprise	Koda
			S. 21-22 T. 11-50	S. 23-31 T. 121-151	S. 33 T. 183-193	S. 51-53 T. 231-241	
Seite 1	-	-	23, 23	-	42, 43	-	53, 53
Takte 1	-	-	93, 94	-	153, 154	-	241, 242
93 T.			85 T.			54 T.	15 T.

Formschema - Ecuatorial

In the only significant article dedicated solely to *Ecuatorial*, Ivanka Stoianova relates the form of the piece back to traditional categories of sonata-form. She divides the piece into 10 phases, A-C comprise the orchestral introduction, D-G comprise the four strophes of the text and H-J comprise the extremely short coda of the piece. But the argument about sonata form falls along different lines than this merely tripartite division. The exposition includes the first vocal strophe, and then a quasi-reprise in the final vocal strophe leads us to a coda. Without going into too much detail about Stoianova's argument that basis gist of this division depends on seeing a difference between expository and developmental treatment of musical material. For Stoianova, all the fundamental "bauelemente" are exposed

up through the first strophe and after this, new developmental processes occur. But Stoianova admits that even in the expository sections of *Ecuatorial* these "bauelemente" or "Embyro- oder Impulse-elemente" are being developed as they are exposed. There is a taboo on literal repetition in Varèse's music, a taboo which is maintained in order to produce the constant negation of static or ideal thematic figures. Each "bauelement" is constantly undergoing a developmental process as the piece moves along in time, forming larger and more complicated configurations.

What would it mean, in this context, to call this Varèse's formal process an exposition or a development? It seems that the rhetorical functions, which grounded classical sonata form, cannot apply here. Despite Varèse's denial of literal repetition, end-orientation, and teleology, can *Ecuatorial* have the same formal properties as a sonata-form? I believe it cannot. Moreover, I think that Varèse deploys quite distinct and independent strategies in order to give shape to the piece.

For example, take the instrumental introduction (up to rehearsal 5, p. 14), which is equivalent to the "exposition" in Stoianova's schema. In the instrumental introduction, the tempo change at rehearsal 3, p. 7, m. 30, acts as a sudden interruption from the processes that have been active earlier. Yet, at the same time, Varèse continues to develop his building-blocks: repetition figures, trombone rips (which can be traced back to the chromatic lines in the

opening bars), and jagged, chordal accretions in the brass. By denying literal repetition through constant development and transformation, Varèse points to the musical material's non-identity with itself, as it undergoes a process of continual re-configuration. We clearly perceive rehearsal 4, p. 11, as a return to previous building blocks, and the original slower tempo, this time pierced with an extended duet for the Ondes Martenots, doubled by piano. The jagged accretions in the brass lead to a more significant form-generating event: a complete rupture by massive open fifths at rehearsal 5, p. 14. Climatic ruptures like this one are not necessarily reducible to consequences of incrementally developing material. Rather, they have the character of radical and potentially unmotivated change, which will become a significant form-generating feature, as I will later argue.

The piece makes more sense when divided into three distinct sections: the instrumental introduction, the vocal part and the coda. These three phases are clearly articulated perceptually by large ruptures in the musical texture, and can be related to the poetic or programmatic ideas embedded in the piece. I have already discussed how the introduction functions formally as tripartite. As far as the vocal strophes, we can divide them up as such: the first strophe, D, is based on continual, long, composed-out vocal phrases. Strophe E develops repeating figures, with pitches seemingly locked in particular registral positions. Vocally,

this strophe is primarily comprised of recitation. In the third, strophe, F, the piece reaches a moment of anxious calm, and the bass voice introduces its microtonal material, glissandi, hummed glossolalias, and speech-song. In the last vocal strophe, G, a long instrumental section continues the musical processes that have been at work thus far, and the voice seems to recapitulate its entire vocal repertory. Two massive blasts of the brass finish off the vocal strophes and lead to the startling coda.

In a sense, the long instrumental introduction motivates the coda in an unconventional way. We have intimations throughout the work of the central role that the Martenots will play in the work, but the strange sense of closure given by the coda depends on its symmetrical relation to the opening. In Varèse's peculiar principle of repetition, things never repeat literally, but this coda seems to be both repetition and a farewell to what came previously. The coda is clearly tripartite: a section for the Ondes, an interpolation by the organ, and a final duo by the Ondes. The relevance of this coda will be discussed further.

Building blocks and boundary intervals in *Ecuatorial*

If we begin in part A, it is possible to enumerate some of the important building blocks:¹⁴

¹⁴ The entire discussion of "bauelemente" is based on Stoianova's analysis.

- 1) Chromatic, descending figure with syncopation - Piano, m. 1 and 3
- 2) Held sounds - Trumpet, mm. 1-2, mm. 5-6
- 3) Descending tritone - Trumpets, p. 1, mm. 3-4
- 4) Major sixth, minor 3rd - Trumpets, mm. 5-6; minor ninth - Trumpets, mm. 5-6
- 5) Ascending/descending melodic motion with large intervallic leaps - Trumpet, mm. 3-5.
- 6) Accretions - Brass, mm 8-10
- 7) Repetition-figure - Piano m. 6; mm. 9-10; mm. 11, 13-14; Percussion m. 7, 9-10, m. 11
- 8) Descending figure of parallel tritone intervals - Timpani, Trombones, Organ, mm. 12-14

It is worth investigating the opening few pages to see how these building blocks are utilized. In mm. 1 the chromatic, descending figure with syncopation is introduced in the piano (element 1). The third trumpet sustains the B natural which ends the piano's phrase (element 2). Measures 3 and 4 elaborate the unit presented in measures 1 and 2: the chromatic line is now given to the second trumpet and the piano. But instead of merely extending this chromatic descent further to A sharp, the third trumpet inserts an E natural on the third beat of mm. 3. This introduces the descending tritone (element 3). We immediately hear element 2 again in the descent from G sharp to C double sharp in the second trumpet in mm. 4, but this interval is followed by a descent of a minor sixth (C double sharp to E sharp) followed by a leap up a minor third (D sharp to F sharp) in the first trumpet, mm. 5 (element 4). This kind of ascending and descending melodic motion, although at this point of the piece still entangled in the exposition of other elements, will eventually become separated out and play a role of its

own, hence it is worth calling distinguishing it here (element 5). Other prominent occurrences of ascending/descending melodic motion with large intervallic leaps (element 5) are located at mm. 99-101; 121-125; 172-178; 191-192; 196-199; 231-235. The dyad sustained in the trumpets, in mm. 5, is a minor ninth (E and F sharp). This interval will play a prominent role as a boundary interval in the chordal vocabulary of the piece. A discussion of the role of boundary intervals will follow after the introduction of the rest of the building blocks.

A new version of the descending chromatic line connected with held notes (elements 1 and 2) is presented in mm. 6-7. The next two measures present a germinal version of an accretion (element 6). This element will eventually function as a *grundgestalt* in *Ecuatorial*, playing a crucial role in generating and articulating form. A more fully developed version of this element is in the brass, mm. 21. (I save my discussion of these accretions until later). Immediately following upon this accretion the piano sustains the note G sharp as a tremolo. This represents the first instance of a repetition-figure (element 7), which has numerous configurations throughout the work. This G sharp is sustained through mm. 15 with only one interruption in mm. 12, by a figure which combined the descending chromatic line (element 1) with the interval of a tritone (element 3) producing a new *bauelemente* (element 8).

The harmonic language of the piece appears to be guided by what I am calling boundary intervals. By this term I mean, in particular, a chord with a specific interval spanning its outermost voices, acting as a boundary between which other notes are inserted in a, more or less, systematic fashion. In *Ecuatorial* the minor ninth and major seventh are the most prominent boundary intervals. The minor ninth is introduced in its bare form at mm. 5-6 in the first and second trumpets; the major seventh is introduced in the first and second trumpets at mm. 16. The relation between these two intervals as expansions of the semitone again reveals Varèse's interest in exploring non-identical transformations, and building a musical language fundamentally based on the chromatic. The pitch structure of element 1 is expanded and transformed into a harmonic structure. A good example of the use of boundary intervals is at mm. 22 in the brass. The result of this accretion gives us two chords one placed on top of the other: the trumpets play a chord bounded by the minor ninth between D and E flat, with a C inserted in the middle, while the trombones play a chord bounded by the minor ninth between F sharp and G, with a C sharp inserted. Jonathan Bernard describes this manner of superimposing chords as a symmetrical structure common in Varèse's harmonic vocabulary. The instrumentation and register help to articulate this differences, and similarities, between these two chords. Moments such as these are ripe for

interpretation as models of the "interpenetration of sound masses" as mandated by Varèse's own writings about music.

A glance at any page of the score will show the functioning of these "bauelemente" and the functioning of boundary intervals as organizational principles of Varèse's musical discourse. But I have to admit that my interest in the developmental or "crystallization" process in *Ecuatorial* is quite limited. Stoianova's article does an excellent job of tracing these features out in accordance to Varèse's own theoretical terminology but I think that, ultimately, this misses the programmatic and poetic significance of these processes.

Catastrophe, at the level of content and form

Valery, in his comments on the *Leyendas de Guatemala* mentions how the whole appears "under the strokes of a catastrophe." I think this preoccupation with catastrophe is made dramatically clear in Varèse's compositional decisions for *Ecuatorial*. The affect of the whole is one of anxiety in the face of catastrophe. The text conveys this quite clearly: in the third strophe, where the Ondes Martenot is prominently featured, the music conveys an anxious quietude, and contains one of the most interesting lines, "Que no haya desgracia ni infortunio / vuestra potencia, vuestra hechicería." [Let not your power, let not your sorcery be their evil and their misfortune.] In this line, "their" is

referring to the children, the descendants, of the speaker. The survival of the tribe depends on the gods who take on a structurally ambiguous role: their power has both created the tribe, and has the potential to bring about their destruction. The extermination and survival of the tribe are intertwined in the dialectic of the gods' magic power. *Let not your power be their misfortune.* The two sides of the proposition, survival and extermination should be mutually exclusive, if one reads this line promoting an antinomy. However, there is also a dialectical reading, where the extermination is survival. Are the gods being asked to preserve the tribe through the use of their power, or is it merely because the god's posses such power that the tribe is doomed? If we think about this text in its post-Columbian context, the latter reading seems strangely foreboding. In the face of certain catastrophe, destruction may be the only possibility for survival. The second reading cannot be disentangled from the first.

There is a musical equivalent as well: at the level of content, the brass accretions play a similar dialectical role. Much like in *Déserts*, the ever more elaborate accretions in the brass give shape to the musical form. They are the one consistent "gestalt" which gives the work a sense of periodicity and repetition. Yet, at the same time that the accretions give shape to the form, they also threaten to rupture it. For example, the continuity of the first 21 measures of the piece is finally pierced by the

large accretion in the brass, which appears immediately before rehearsal 2. The reaction by the Ondes Martenots and Organ comes as strange response to the violence of the brass' accretion. On the one hand, the brass accretion creates a sense of periodicity, articulating the shape of the phrases, and continuities, developed out of the "bauelemente," but at a price: the articulation of form breaks the continuity and forces something drastically new to occur, as a way reconcile the force of this articulation. The attempt to created continuity from section to section depends on discontinuity at the level of periodic articulation.

The largest ruptures in the piece occur at the entrance and exit of the voice. The massively orchestrated open fifths at rehearsal 5 are completely unmotivated. But the lack of motivation is crucial as a formal articulation. The continuity that is always being disrupted and recuperated in the opening instrumental section, requires ever greater discontinuities to signal important formal events. The entrance of the voice on the other side of this rupture initiates a new principle of discourse: now the instruments are subordinated to the voice. The voice is almost always doubled in the instrumental ensemble, both mediating the relation between the voice and the instruments and "coloring" the text in various ways. The brass accretions punctuate the periods of the text. But this incantatory attempt to perpetuate the survival of the tribe, and its

metaphorics of containing the brass accretions to the subordinate role of servants, merely articulating the syntactic periods, cannot last very long. The extended musical interlude in Part G, and the blasts, which interrupt the text as it approaches the end of the recitation, lead from the anxious calm of Part F towards the coda. A new discontinuity is introduced before the coda arrives: significantly, the brass, in its final accretions at 240-241, plays the same figure twice, with a slightly altered rhythm (making the second figure sound like an rhythmic augmentation of the first). This double blast is radically discontinuous from the logic of the brass accretions presented thus far. In all other cases the sense of identity of the brass blasts as accretions has been over, and against, their constantly changing orchestration, pitch structure, duration, rhythm, and intensity. In other words their identity depended not on any of these features in particular, but more on their instrumentation and general "gestalt". Now where we finally have repetition, the entire texture must change and the coda is signaled.¹⁵

Musical and ethical significance of the coda

The coda can be broken down into three sections: a duet for the Ondes Martenots (mm. 242-245), a solo for organ (mm. 246-249), and a final duet for Ondes Martenots (250-256).

¹⁵ This same process, of two accretions signaling the coda, also happens in *Déserts*. This is the only moment in the entire work where the form-generating accretions literally repeat.

Like the massive rupture that signaled the voice's entry, this new rupture initiates a new musical space where the brass instruments are no longer present in any significant manner. The catastrophic blasts of the brass are gone in this world dominated by Ondes Martenots, a world that looks beyond the one ruled by tempered pitch space.

Varèse's interest in electronic instruments is well documented and actually precedes the creation and invention of the instruments.¹⁶ I would like to look at a few quotes of Varèse's from "The Liberation of Sound" to see what we can make from his comments on these kinds of instruments:

If you are curious to know what such a machine could do that the orchestra with its man-powered instruments cannot do, I shall try briefly to tell you: whatever I write, whatever my message, it will reach the listener unadulterated by "interpretation"...And here are the advantages I anticipate from such a machine: liberation from the arbitrary, paralyzing tempered system; the possibility of obtaining any number of cycles or, if still desired, subdivisions of the octave...new dynamics far beyond the present human-powered orchestra...cross-rhythms unrelated to each other, treated simultaneously, or, to use the old word, "contrapuntally", since the machine would be able to beat any number of desired notes, any subdivision of them, omission or fraction of them - all these in a given unit of measure or time that is humanly impossible to attain.¹⁷

The human does not fare too well in this passage: the orchestra with its man-powered instruments, bound to the paralyzing and arbitrary tempered system, mediating and limiting compositional thought through "interpretation,"

¹⁶ See Varèse's article from June, 1917 in the periodical "391", no. 5.

¹⁷ Varèse, Edgard, "The Liberation of Sound," in *Contemporary Composers on Contemporary Music*, ed. Schwartz and Childs, Holt, Reinhardt and Winston, 1967, pp. 200-201.

cannot compete with the new dynamics, continuous pitch spaces and simultaneous cross-rhythms of electronic instruments. It is important to keep this view in mind when we hear the electronics in *Ecuatorial*: this is no mere expansion of the musical palette, rather, these instruments are charged with significance for Varèse. In fact, during his work with Theremin for *Ecuatorial*, Varèse asserted: "I will compose no more for instruments to be played by men: I am inhibited by the absence of adequate electronic instruments for which I conceive my music."¹⁸

I want to suggest that in the coda to *Ecuatorial*, the suggestiveness of the electronic instruments is overpowering. The brass is wiped out, and we are left with a rarified and fluid world of electronic sound, one that leaves the catastrophic blasts and accretions far behind. But at the same time there is no mediation: the electronics take over, radically rupturing the musical texture much in the same way that the voice did previously. The coda is in a certain sense quite Beethovenian, but in this "Les Adieux" we say farewell to all that human-powered paralysis and arbitrariness. One can't help but flirt with the possibility that what we hear at the end of *Ecuatorial* is Varèse's sonic image of the tribe's survival, through the destruction of all that man-powered nonsense.

¹⁸ Vivier, p. 113.

A coda on the coda

Is this sheer subjective extra-musical projection? Henry Miller, in his essay "With Edgar Varèse in the Gobi Desert"¹⁹ interprets the image of the desert in *Déserts* in a manner that also makes sense for the coda of *Ecuatorial*. Miller was familiar with Varèse through Anäis Nin, whose brother was also a composer. Miller's connections to Nin are well documented, and Nin was one of Varèse's many collaborators on the uncompleted *Espace*. Of course, Miller is no musical analyst or critic of contemporary music, but Miller sees in Varèse's music something which cannot be so easily shaken off by analysts who insist on understanding Varèse only in terms of "crystallization" and "interpenetration of sound masses" - negation. I don't feel that one misreads Varèse by emphasizing his distaste for the human. But this does not mean that Varèse is arguing for the machine either. What is important about Miller is that he tries to describe, in his own unusual prose, what the "survival of the tribe" might mean to Varèse:

All our worlds are dead. Magic is dead. God is dead. The dead are piling up around us. Soon they will choke the rivers, fill the seas, flood the valleys and the plains. Perhaps only in the desert will man be able to breathe without being asphyxiated by the stench of death. Varèse, you have put me in a dilemma. All I can do is to append a footnote to your new opus.²⁰

¹⁹ Miller, Henry, *The Air-Conditioned Nightmare*, New Directions, 1945, pp. 176-178.

²⁰ Miller, p. 176.

Miller's footnote is written as a short play. The survivors in the Gobi Desert are trying to make a sound, but none are able and the silence becomes more and more agonizing. They begin to shriek one by one until a huge bird drops dead from the sky. The survivors shout: "We are lost! We are saved!" Then silence. Then a huge resounding gong, which slowly grows into an another agonized silence. Then the magician appears:

"Raising his hands heavenward he begins in a clear, even voice, neither high nor loud nor shrill: a voice which carries, which stills the heart. This is what he says:

"Believe no more! Hope no more! Pray no more! Open wide your eyes. Stand erect. Cast out all fear. A new world is about to be born. It is yours. From this moment all will change. What is magic? The knowledge that you are free. You are free! Sing! Dance! Fly! Life has just begun!"

Gong, followed by black-out."²¹

Then Miller gives a brief account of what happens immediately afterward:

"As we leave the auditorium the familiar racket of the street assails our ears. This is not the sound made by naked feet clambering up the golden ladder; it is not even the rattle of the golden chain which binds the hierarchies of man. It is the death rattle. Those who have refused to advance and stake out the claims which are waiting for them are giving up the ghost. This rattle in the throat, this rale, this horripilating glug-glug of the drowned is the chamber music of the defeated.

"We are now listening to the cadenza. It is made of garbage and emery wheels. It is perforated with bullet holes which gives the illusion of cheers. *Music?* Yes, a sort of weird, anachronistic funeral march. Title: *Mort à Credit*.

²¹ Miller, p. 178

"I walk through the vacant lot on my right, which happens to be the Gobi Desert, and as I think of the last million of two beings butchered under a cold moon I say to Varèse: "Now blow your horn!"

"What a sound that makes in a world lying cold and dead! *Is it music?* I don't know. I don't need to know. The last dud has just been rubbed out. All is quiet on the Western, the Eastern, the Southern and the Northern Front. We're in the Gobi Desert at last. Only the chorus is left. And the elements: helium, oxygen, nitrogen, sulphur, et cetera. Time rolls away. Space folds up. What is left of man is pure MAN. As the old fades away station WNJZ of Auckland can be heard playing "It's a long, long way to Tipperary!"²² Varèse sneezes. "Allez-ooop!" he says, and on we go..."²³

²² For a fascinating interpretation of the significance of "Tipperary" in the context of nostalgia for a dead culture, see Santayana, George, "Tipperary", in *Soliloquies in England and Later Soliloquies*, Charles Scribner's Sons, 1922, pp. 99-106.

²³ Miller, p. 178. For another reading of this passage see the article entitled, "With Busoni, Varèse and Miller in the Gobi Desert" in *Musik-Konzepte 6*, Edgard Varèse/Rückblick auf die Zukunft, text + kritik, München 1978

APPENDIX I - The text of *Ecuatorial*

Part D

Oh constructors, oh formadores
Vosotros veis. Vosotros escuchais.
No nos abandonéis!
Espiritu de la cielo, espiritu de la tierra
6 Dadnos nuestra descendencia, nuestra posteridad,
mientras haya días, mientras haya albas.
Que la germinación se haga. Que el alba se haga. Que
numerosos sean los verdes caminos,
las verdes sendas que vosotros nos dais!
Que tranquilas, muy tranquilas estén las tribus!
7 Que perfectas, muy perfectas sean las tribus!
Que perfecta sea la vida,
la existencia que nos dais!

[O Builders, O Moulders!
You see. You hear.
Do not abandon us,
Spirit of the Sky, Spirit of the Earth.
Give us our descendants,
Our posterity as long as there are days, as long as
there are dawns.
May green roads be many,
The green paths you give us.
Peaceful, very peaceful may the tribes be.
Perfect, very perfect may the tribes be.
Perfect, very perfect may life be, the existence you
give us.]

Part E

Oh, maestro gigante,
Huella del relámpago, esplendor del relámpago,
Gavilán
8 Maestros magos dominadores poderosos del cielo,
Procreadores engendradores
Antiguo secreto, antigua ocultadora,
Abuela del día, Abuela del alba,
9 Que la germanación se haga,
Que el alba haga;

[O Master Giant,
Path of Lightning,
Splendor of Lightning,
Falcon!
Master-magi, Powers of the sky,
Procreators, Begetters!
Ancient Mystery, Ancient Sorceress,
Ancestress of the Day, Ancestress of the Dawn!

Let there be germination,
Let there be Dawn.]

Part F

Hengh hongh whoo
Salve bellezas del día,
Dadores del amarillo del verde
Hoo ha
10 Dadores del hijas, de hijos
Hongh hengh whoo whengh
Dad la vida la existencia a mis hijos a mi prole!
Que no haya desgracia ni infortunio
vuestra potencia, vuestra hechicería.

[Hail beauties of the Day,
Givers of Yellow, of Green!
Givers of Daughters, of Sons!
Give life, existence to my children, to my descendants.
Let not your power, let not your sorcery be their evil
and their misfortune.]

Part G

12 Que buena sea la vida de vuestros soteles,
De vuestros nutridores
Antes vuestras bocas, ante vuestros rostros
Espíritus de cielo, oh Espíritus de la tierra.
13 Hoooh oh ah whoo hé oh ha
Dad la vida, dad la vida, dad la vida!
14 Ho hé whoo
Dad la vida, oh fuerza envuelta en el Cielo
En la tierra, en los cuatro ángulos,
En las cuatro extremidades.
15 En las tantos existe el alba,
En tanto exista la tribu.

[May it be happy, the life of your upholders,
your providers before your mouths,
before your faces,
Spirit of the Sky, Spirit of the Earth.
Give Life, Give Life!
Give Life, O All-Enveloping Force, in the sky,
On the earth, at the four corners,
At the four extremities,
As long as the dawn exists,
As long as the tribe exists!]

Bibliography

Varèse, Edgard, *Ecuatorial*, Colfranc Music Publishing, New York.

Works Cited:

Asturias, Miguel Ángel, *Leyendas de Guatemala*, ed. Alejandro Lanoël, Ediciones Cátedra, Spain, 1995.

Bancroft, Hubert Howe, *The Native Races of the Pacific States*, vol. III, San Francisco, 1883.

Miller, Henry, *The Air-Conditioned Nightmare*, New Directions, 1945.

Popol Vuh: The Sacred Book of the Ancient Quiché Maya, from the translation by Adrián Recinos, tr. into English by Goetz and Morely, University of Oklahoma Press, 1950.

Prieto, René, *Miguel Angel Asturias's Archaeology of Return*, Cambridge, 1993.

Stoianova, Ivanka, "Edgard Varèse: *Ecuatorial*", *Melos*, vol. 48, no. 4, 1986.

Varèse, Edgard, "The Liberation of Sound," in *Contemporary Composers on Contemporary Music*, ed. Schwartz and Childs, Holt, Reinhardt and Winston, 1967.

Vivier, O., *Varèse, Solfèges*, Seuil, Paris, 1973.

Weber, Max, "Science as a Vocation," in *From Max Weber: Essays in Sociology*, ed. Gerth and Mills, Oxford University Press, 1946.

Other Works:

Musik-Konzepte 6, Edgard Varèse/Rückblick auf die Zukunft, text + kritik, München 1978.

Popol Vuh, tr. Dennis Tedlock, Simon and Schuster, New York, 1985.

Perspectives on American Composers, ed. Boretz and Cone, W. W. Norton and Company, New York, 1971.

Santayana, George, "Tipperary", in *Soliloquies in England and Later Soliloquies*, Charles Scribner's Sons, 1922, pp. 99-106.

Soundings: Ives, Ruggles, Varèse, *Soundings* magazine, Spring 1974.