Since the 1960s, François-Bernard Mâche has made a name for himself in researching and using archetypes (as well as genotypes and phenotypes) in his instrumental and mixed music: just think of Rituel d'oubli (1968, for recorded sound and instrumental ensemble) or Korwar (1972, for recorded sound and modern harpsichord), or Naluan (1974, for recorded sound and eight instruments). But the formulation and description of these elementary units changed in the composer's studio between the 1960s and the 1990s. In 1974, he described his work as a "naturalistic" undertaking, precisely in relation to this last work, in which he "proposes the deciphering of sound reality as a liberating and inexhaustible task. [In Naluan [...] the birds, insects and amphibians that I have recorded, transcribed and orchestrated are integrated into a whole without themselves undergoing any metamorphosis other than that brought about by the recording. 1 Fifteen years later, in an important interview in 1990, he made the link between his "sound forms" and mythical sources, and, in a way, the sacred. "I think that there are spontaneous thought patterns that are produced by our nervous system, and among these thought patterns, these symbolic archetypes,

nervous system, and among these thought patterns, these symbolic archetypes, there are those that the ancients called gods, and there are others to which I give sound forms. "2

While admitting that the mythical sources of art are the same as the mythical sources of religion, what the composer calls the sacred is the awareness of this source in oneself.

"I realised that what distinguishes sound or noise from music is the ability to awaken a deep unconscious layer [...]. I started by listening to natural sounds to rediscover my inner nature. 4

In other words, in his musical work, the composer tries to bring together natural sound models (external reality) and natural patterns (nature as an active inner principle).

In his various articles and books published between 1963 and 2001, the composer also identified possible cases of archetypes 6. In 1997, he listed the formal categories and data of the musical imagination. For the latter, he gave as examples sexual symbolism; cosmological symbolism; emotional and social symbolism; and associations between the acoustics of the biotope and the music played there 7. Observing this evolution in the composer's thinking about archetypes, we might wonder whether this development has found its counterpart in his work, in his musical writing?

In Naluan, the composer's intention was as follows: "It is no longer a question of transposing [read: transcribing] sounds musically, it is a question of revealing the music that is already present, always-already there, as the philosophers say, in the world in which we live. The composer merely discovers it... "8.

As for its technical realisation, the composer explains that in 1969, with Rituel d'oubli, he inaugurated an approach that was both complementary and opposed to the method of simple transcription/transposition of sound models (see for example Safous mélè, 1959, and Le Son d'une voix, 1964): from 1969 onwards he mixed the model itself with its instrumental imitation. The word Naluan comes from Malekula in the New Hebrides, and here the composer produced "a faithful instrumental veneer aimed at confusing the conventional categories of the raw and the musical "9. This

technique is similar to the one he uses in Korwar, whose title comes from Oceania and describes human skulls that are both sculptures and natural objects (because they are coated with clay and then painted).

Naluan is an 18-minute piece in which a montage of bird, insect and amphibian sounds is complemented by the solo, chamber music or tutti version of an instrumental ensemble comprising a flute (or piccolo), B-flat clarinet (or bass clarinet), piano, violin, viola, cello and double bass, and a panoply of percussion using around twelve instruments in alternation.

The magnetic tape montage contains the following recordings according to their timed entry:

I - Shama (lasting approx. 1 '58")

II - Reed warbler duet (approx. 2'12")

III - Shama (approx. 5'22")

IV - duet of marsh warbler and icterine hypolaïs (approx. 4'30")

V - insects and toads, then crickets (approx. 2'50")

Slow, purely instrumental interludes create breaks between all the sections.

If a musicologist is trying to understand the macro-structure of the work, he will have at his disposal, with a view to segmentation, the various musical parameters, such as tempos (see: the alternation of slow and fast tempo); the alternation of interludes and sections with a cantus firmus of recorded sounds; sections with solo instrument, or tutti or a few instruments only as accompaniment to the cantus; sections with a drone; static sections or sections with a direction in the movement; dynamics, and so on.

After examining all these parameters, we come to the conclusion that the only real sense of structure and musical process lies in a balanced, rigorous and almost traditional organisation of musical units, in accordance with the structural categories of the "baroque" and "classical" periods.

Here, briefly presented, is the overall form of the piece according to the only segmentation, in my opinion, that makes sense.

Slow introduction (shama), then alternating tempos: Subito lento and Moderato; orchestration: mainly drone (cluster of low strings) - chs. 1-3 of the score.

Very slow Interlude no. 1 (quasi Adagio): piano and percussion complementing the drone of the strings - ch. 4.

A - Main section/1: Moderato (transposed duet of reed phragmites) :

instrumental style: "chamber music" - ch. 5;

instrumental style [and the phragmites part]: more hesitant, irregular - ch. 6-7;

c) repetitive style, ostinato [in both parts] - ch. 8.

Interlude no. 2: quasi Adagio, drone style - ch. 9.

- B Main section/2: quasi Moderato, even scherzo (shama)
- a) virtuoso, lively duet: shama and piano ch.10, then shama + clarinet, piano, cello chs. 11-12,;
- b) Lento movement: nocturnal dialogue of shama and percussion ch. 13-16; ~
- c) quasi variant of a): lively tempo (quasi Moderato); shama and tutti chs. 17-28. Interlude no. 3: Lento subito: drone style and nocturnal atmosphere ch. 29.
- C Main section/3: lively tempo, quasi Moderato (duet of marsh warbler and icterine hypolais):
- a) fortissimo; alternating tutti and chamber music ch. 30-40;
- b) climax: mezzo forte; tutti: alarm style, nervous impulses ch. 41-46;

c) transition, drone style, microtonality - ch. 47-51.

Interlude no. 4: quasi Moderato; "Morse" style and anabasis [ascent], ch. 52. Coda: slow section, quasi Andante; progressive anabasis of the instruments, accompanied by the sounds of two insects; then toad sounds, then transposed cricket sounds - chs. 53-58.

To illustrate the blending of the model and its transcription, here is an extract from page 11 of the score: it offers a 'chamber music'-style accompaniment for the 'reed warbler' part.



Ex.1 – François-Bernard Mâche, Naluan, p.11, mes.21-24 du ch. 5

This presentation table highlights the composer's supposed intention to create a balanced structural framework in the "classical" sense for the raw natural sounds their "veneer". A framework whose structuring is ensured by tripartite processes at several scales of the form (micro-structure, macro-structure, and middle level).

It is reminiscent of classical symphonic forms where the third movement underlines an A-B-A structure whose central part is also tripartite. To clarify what is the macrostructure is tripartite if we consider the main sections A, B and C according to the segments of the corresponding birdsong montage (section A: transposed reed warbler duet; section B: shama; section C: marsh warbler and icterine hypolais duet). The central B section (with shama) itself offers a tripartite internal structure through a virtual a-b-a form, where the 'a' part is lively (almost scherzo), and the 'b' corresponds to a slow, nocturnal section.

Our table cannot, of course, cover all the important details of the transcriptions, such as whether the birdsong (and its respective accompaniment) is melodic or rhythmic or percussive, or even noisy; whether it is in the high, medium or low register; whether its expression is agitated or calm, playful or contemplative, etc. Yet if we want to understand the articulation of the musical form, the emphasis on repetitions

and variations, and the contrasts, these sound qualities are of vital importance. This piece corresponds to the type of form described by F.- B. Mâche as 'fantastic realism', for here we find the 'realism' of balanced classical forms and arrangements, but we also encounter some extravagant, 'fantastic' musical sound images that evoke the natural environment (that of the forest, perhaps) with its exceptional moments of twilight or night (section B, in the middle, chs. 13-15), its moments of agitation producing alarm signals in the event of an imaginary threat (section C/b: climax of the piece, chs. 41-46), but also the unusual scenario in the coda preceded by its interlude, where we witness a gradual ascent spanning more than three minutes, from the very low register and threatening "morse" signs in the double bass to the high, almost imperceptible sounds of recorded crickets (Coda)10.

1 Preface to the score of Naluan, Paris, Durand, 1974, p. 1.

2 "Propos sur la musique religieuse", in François-Bernard MÂCHE, Un demi-siècle de musique ... et toujours contemporaine, Paris, L'Harmattan, 2000, p. 346 (source of the article: interview at the EHESS in 1990).

3 Ibid, p. 347.

4 Ibid, p. 347. 5 Ibid.

6 I have presented their chronological evolution in a table in the following article: "Les universaux et leur rapport avec la composition dans l'œuvre de François-Bernard Mâche", Musicalia (Roma), n" I, 2004 [Special issue entitled "Son et Nature. Composition et théorie musicale en France: 1950-2000", edited by G. Borio and P. Michel], pp. 153-172.

7 Cf. Les universaux en musique et en musicologie", in Françoise ESCAL and Michel Imberty (Ed.)La musique au regard des sciences humaines, Paris, L'Harmattan, 1997, vol. 1, p. 199 (These categories are detailed in the article). 8 Preface to the score, p. 1. 9 Ibid.

10 Since 1974 this image and technique of ascent, of anabase, has become a recurrent element in F.-B. Mâche's major works, see for example Kassandra (1977), L'Estuaire du temps (1993), Canopée (2003), and so on. Its symbolism is associated with superhuman strength, with mediation between humans and the divine, as is the case with shamans or priest-kings [cf. the "ceremonial staircase" or the "ritual ladder"]; but also with death, as the ultimate break in level. For an explanation, see Mircea ELIADE, Images et symboles, Paris, Gallimard, 1952 [1980], chapter "Symbolisme du 'centre", sub-chapter: "Symbolisme de l'ascension", pp. 59-65.

Márta Grabócz, Du montage à la complexité dans l'exploitation des modèles naturels, in L'universel et l'utopique, hommage à F-B.Mâche, Université de Paris-Sorbonne, Observatoire musical français, Paris 2006, p.75-79.