

***Kraanerg* by Xenakis**
Benoît Gibson, Makis Solomos

By the mid-1960s, Xenakis's reputation had grown exponentially. In 1965-66, the work entitled *Terretektorh* premiered at the Royan Festival; it was performed in a hangar, with Xenakis scattering the entire orchestra (88 musicians in total) throughout the audience. Its impact reverberates to this day. In 1967, he was commissioned to compose a piece for the French pavilion at the World's Fair in Montreal, where he performed his first *polytope*. In 1968, he created *Nuits*, which premiered to great acclaim, a rare enough phenomenon in the world of so-called contemporary music. Such was the backdrop against which *Kraanerg* was composed, a musical work for ballet (hence undoubtedly the length of the piece). It was commissioned by the Ballet Guild of Canada for the opening of the National Arts Centre in Ottawa on 2 June 1969. Critics at the time pointed out that three foreigners had in fact been commissioned for this inauguration of the Canadian centre: Xenakis, a Greek political refugee in France; Roland Petit, a French choreographer; and Victor Vasarely, a naturalised French Hungarian, entrusted with the sets (not to mention an American conductor, Lukas Foss, on top of these three 'foreigners'). One of the critics at the premiere, who had highlighted this fact, was merciless in his review, not with regard to the music or indeed the sets: it was the choreography with which he took issue: 'And yet the choreography remained the weakest element of the evening, even if it is difficult to measure up to the likes of Xenakis and Vasarely'¹ – which in itself tells us something about Xenakis's fame.

By then, Xenakis's fame was not so much that of a 'mathematician' introducing the notion of 'formalisation' into music than that of a 'revolutionary'. This was, after all, around May 1968, a time when Western societies were being shaken by student riots, by protests against the Vietnam War and American imperialism, and by the Black American civil rights movement ... And while any number of exponents of avant-garde music may not have been particularly revolutionary, politically speaking (i.e. Stockhausen, Boulez ...), Xenakis's past was well documented: he was the communist, a survivor of Greece's civil war. His music, then, is doubly revolutionary: musically and politically. (Indeed, commentators have posited the theory that his music became revolutionary by musically transposing the political revolution he was unable to bring about in his own native country²). *Kraanerg* is certainly a piece in which May 68 strongly resounds: 'In barely three generations' time, the population of the planet will have passed the 24 billion mark. Eighty per cent of that population will be under the age of 25. Fantastic transformations will occur in all areas as a result. A biological battle between the generations, unfurling across the globe, destroying political, social, urban, scientific, artistic and ideological frameworks, on a scale never before experienced by humankind, and unpredictable'³, says Xenakis by way of introduction to the piece, the title of which, incidentally, signifies a 'fusion of two Greek words ("cranium-energy") that roughly translate as "cerebral energy". There is also the connotation "accomplishment" through the root word *Kraan*'⁴.

1 Pierre W. Desjardins, *Kraanerg*, *Vie des arts* No. 56, 1969.

2 Cf. Makis Solomos, 'Des combats de décembre 1944 à *Metastaseis* : d'une révolution à l'autre', in Makis Solomos (ed.), *Révolutions Xenakis*, Paris, Philharmonie de Paris / Éditions de l'Œil, 2022, p 296-308

3 Iannis Xenakis, sleeve cover for the LP *Xenakis*, Erato, STU 70526-30

4 Iannis Xenakis, in François Delalande, *Il faut être constamment un immigré. Entretiens avec Xenakis*, Paris, Buchet-Chastel/INA-GRM, 1997

Formally, the material featured in *Kraanerg* is often recurrent, prompting James Harley to comment that the piece is 'kaleidoscopic' in form⁵. The tape material is said to come from recordings made with the same group of musicians. Even though these recordings were reworked electro-acoustically, certain passages are close to those performed by the instrumental ensemble, enabling certain sound ambiguities and cross-fading effects. What's more, the alternation between the instrumental ensemble and the tape, more prominent at the beginning and end of the work, is often achieved through *tuilage*, i.e. call-and-response overlays of varying duration (2 to 7 seconds).

While *Kraanerg* unfolds mainly as a sound continuum, the score also indicates several silences, some as long as twenty-eight seconds. At the time the work was created, these silences would give the sound engineer time to change the reels, but there is no way of knowing whether that is the explanation. We also note a number of contrasting sections of lesser density, bracketed by silences. They include just a few solo instruments.

While Xenakis is known for outlining a formalisation of music, *Kraanerg*'s concept does not appear to rest on theoretical mainstays. In fact, the score is closely related to another orchestral work by Xenakis, composed the same year at the Royan Festival: *Nomos Gamma* (1967-68). There is certainly a striking similarity between these two works. With the exception of long sustained notes, built around pitch scales and identified as 'Nereids' in the composer's drafts, all the material for the strings is derived from *Nomos Gamma*. It forms either static blocks, modulated by dynamic profiles or rhythmic pulses, or composite 'clouds'. These clouds stem from a passage that Xenakis describes in his writings as a 'sound tapestry'. As for the wind instruments, Xenakis also draws from *Nomos Gamma*, often reverse-engineering these sections. But he also inserted excerpts from other works such as *Akrata* (1965) for 16 wind instruments or *Nuits* (1967-68) for 12 mixed voices. Each time, these materials fit together loosely. The structures on which they were based are erased in favour of a kind of sound characteristic of the composer's idiom. *Kraanerg* is Xenakis's longest work, running at almost 75 minutes. It is also the one for which he made the most use of editing⁶.

⁵ James Harley, *Iannis Xenakis: Kraanerg*. Ashgate, 2015, p 88

⁶ On the practice of editing in the work of Xenakis, cf. Benoît Gibson, *The Instrumental Music of Iannis Xenakis. Theory, Practice, Self-Borrowing*, Hillsdale, New York, Pendragon Press, 2011.