

## **“To Arrest the Process”**

### **Moving Clusters by György Ligeti and Witold Lutosławski**

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It is well known that during the 1960s Ligeti and Lutosławski focused primarily on texture in their experiments. Both Ligeti’s “micropolyphony” and Lutosławski’s “aleatory counterpoint” have been analyzed by many musicologists and commented upon by the composers themselves. Less attention has been paid to the similarity of their efforts to create a new type of musical phenomenon, called “‘fluid’ texture” by Lutosławski and “continuous flow” by Ligeti. Both composers preferred to use metaphors rather than theoretical definitions to describe the music that they imagined. Lutosławski expressed a desire “to loosen the time connections and to achieve [...] a ‘fluid’ texture.”<sup>1</sup> Ligeti formulated his idea by way of a paradox: “My aim was to arrest the process, to fix the supersaturated solution just at the moment before crystallization.”<sup>2</sup> Both of them seem to have strived to show a process of gradual change. Each of them had to invent a way to convert these mental images into a score. The difficulty was that they wished to combine two seemingly incompatible principles: exact notation of their musical text and the impression of free, unpredictable transformation, i.e., an imperceptible transition from one sound, or sound “spot,” to another. In many cases both composers used clusters changing their pitch position and/or density to record such processes.

At first glance Ligeti’s and Lutosławski’s scores from the 1960s appear to be very different from each other: Ligeti uses the usual bar notation, while Lutosławski invents his collective *ad libitum* design, which dispenses with the standard division into bars. Nevertheless, a closer look at the sketches of the two composers reveals that they aspire to the same goal and sometimes even use similar means. Ligeti defines his music of the 1960s as a “continuous flow, unbroken by bars.”<sup>3</sup> In fact, he had already found a texture suitable for embodying such images in his First String Quartet (1953–54), i.e., before *Atmosphères*.

Example 1a: György Ligeti, String Quartet No. 1 (1953–54), mm. 745–47  
(Studien-Partitur ED 6476, Mainz etc.: Schott 1972).

Example 1b

When we analyze the overall sound results of the fugato (*Example 1b*), we see a chromatic cluster changing its density (bar 1) or both its density and pitch (the subsequent bars).

In the 1960s Ligeti continued to build his scores like microcanonic structures, where the parts are very close together but are not permitted to coincide. The sketch for *Ramifications* (1969) shows that the composer meticulously organized the future sound result in such a way as to produce a clearly outlined moving chromatic cluster (*Example 2*).





Example 4: Witold Lutosławski, *Livre pour orchestre* (1968), sketches, p. 5 (Witold Lutosławski Collection).

The sketch of *Ramifications* strongly suggests that Ligeti was concentrating chiefly “on what we hear”; his micropolyphony, with its complex and intriguing “paper music,” appears to be the means and not the end.

At that time (1968) Lutosławski was experimenting with his own type of fluid texture. He wanted “to achieve a continuous change of pitch in the most precise way possible,” and “to give the impression of the quarter-tone cluster moving in space.”<sup>5</sup> While working on his *Livre pour orchestre*, Lutosławski (independently) came very close to Ligeti’s technique of microcanons. In the *battuta* (not *ad libitum*) episodes of the *Livre*, Lutosławski’s moving clusters are sometimes organized almost like Ligeti’s. For example, in one such episode from the *Livre* every group of voices (trumpets I, II, and III with horns I and II; and horns III and IV with trombones I, II, and III) appears in the score as a microcanon. The overall sound result is very similar to Ligeti’s moving cluster in *Example 1*.

When comparing the score of this episode (*Example 3*) with its sketch (*Example 4*), one is impressed by the precision of the composer’s hearing as early as the sketch stage, i.e. from the initial stage of planning the score. If we follow Lutosławski’s sketch, we can trace all the main points of pitch changes in both the vertical and the horizontal dimensions.

The sketches by Ligeti and Lutosławski thus assure us that both composers had in mind a very precise sound image from the very first stage of composition. Lutosławski was obviously conscious of this common feature: “Our methods of approach to the cause of producing music differ widely. The only thing that we share with each other is a certain musical sensitivity. Ligeti always hears things in an extraordinarily exact way. I set much store by this quality.”<sup>6</sup> The individual score designs served the same purpose for both composers: preventing serious distortion of their ideas by performers, so as to provide for every eventuality. They were both aware of possible inexactitudes in the performance of their highly complex and de-

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trbe I  
trbe II  
III  
cor. I

*mf*



trbe I  
trbe II  
III  
cor. I  
cor. IV  
trbni II  
trbni III

*f* *mf* *f*

Example 3: Witold Lutosławski, *Livre pour orchestre* (1968), rehearsal no. 108.

tailed scores. The solution was to take into consideration possible deviations and to try to control them as much as possible. Each of them formulated his priorities as clearly as possible. Lutosławski said:

In meinen Werken ist die ursprüngliche Absicht stets eine ganz bestimmte Klangvorstellung, deren wesentliche Züge nicht angetastet werden – trotz der Unterschiede zwischen den einzelnen Aufführungen, wie sie sich auch aus der Einführung des Zufallsmomentes ergeben.<sup>7</sup>

Ligeti was no less specific:

Ich notiere also exakt und in der Zwölftontemperatur, es soll beim Studium auch angestrebt werden, der vorgeschriebenen Intonation und Rhythmik so nahe wie nur möglich zu kommen. Wenn das gewährleistet ist, bleibt von selbst noch ein Rand von Unsicherheit, gerade der gewünschte Rand, um Hyperchromatik und rhythmische Verlagerungen, und dadurch Verwischung mit Maß und Bewegungsfarbe, zu erzeugen.<sup>8</sup>

Both composers were quite conscious of their unwillingness to use any other sort of notation for their images. Despite all the differences, both Ligeti and Lutosławski believed that a composer should have strict control over every minute detail of the score – in texture as well as in the pitch dimension. Thus, while always maintaining a precise balance between the author's control and the performer's initiative, both composers succeeded – each in his own way – in giving "the impression of the quarter-tone cluster moving in space" (Witold Lutosławski).

<sup>1</sup> Tadeusz Kaczyński, *Conversations with Witold Lutosławski*, revised edition, London: Chester 1995, p. 32.

<sup>2</sup> *Ligeti in Conversation with Peter Varnai, Josef Häusler, Claude Samuel and Himself*, London: Eulenburg 1983, p. 15.

<sup>3</sup> *Ibid.*, p. 14.

<sup>4</sup> *Ibid.*

<sup>5</sup> Tadeusz Kaczyński, *Conversations with Witold Lutosławski* (see note 1), pp. 74–75.

<sup>6</sup> *Ibid.*, p. 132.

<sup>7</sup> Witold Lutosławski, "Über Rhythmik und Tonhöhenorganisation in der Kompositionstechnik unter Anwendung begrenzter Zufallswirkung," in: *Witold Lutosławski (Musik-Konzepte*, vol. 71/72/73), ed. by Heinz-Klaus Metzger and Rainer Riehn, München: Edition Text und Kritik 1991, p. 7. Lutosławski is referring here to his *ad libitum* sections, but the remarks are relevant to the score that appears in *Example 3*, too.

<sup>8</sup> György Ligeti, "Auf dem Wege zu 'Lux Aeterna,'" in: *Österreichische Musikzeitschrift*, 24 (1969), p. 87.