

## **Drummed Out? What Steve Reich did after *Drumming***

by Keith Potter

Notable among the archives now available at the Paul Sacher Foundation for the 74-year-old American composer Steve Reich are the sketchbooks, which Reich himself calls his “notebooks,” and which chart his compositional development in some detail from 1969 onwards. The following discussion merely offers some modest examples of the kind of discoveries that research into these sketchbooks can be expected to reveal.

### *The 1972 sketchbook*

While traveling in Europe from May to July 1972, and briefly following his return to New York that August, Reich forsook his usual manuscript music sketchbooks in favor of a small orange-brown exercise book with pages ruled as graph paper. The first entry in it is dated “May 19, 1972/Rennes” (pp. [4–7]).<sup>1</sup>

It is not too fanciful to suggest that what Reich, in 1968, called “the pleasure of discovering musical processes and composing the musical material to run through them,” loading a process and then letting it “[run] by itself,”<sup>2</sup> would be facilitated by such a neutral, yet user-friendly mode of design. It must be admitted, however, that Reich had already started to use such notations in earlier sketchbooks, and that, when required, he turned to more conventional forms of musical notation on these pages to pursue his ideas in more concrete and familiar musical form. Further, the principal preoccupations of this 1972 sketchbook that gave rise to such notational methods – the combination of hocketing techniques (alternate notes performed by different players) and note doubling – can be detected earlier as well. Nevertheless, an unusual design of this kind must have proved convenient for notating rhythmic ideas, and it surely encouraged his further thinking about the nature of rhythm itself and about how it may be perceived.

*Clapping Music*, dated December 1972 in the published score (1980), is the first composition that Reich completed following his major breakthrough with *Drumming* (1970–71). Reich has frequently told the story of

how this work came into existence – how it was inspired by seeing a Brussels flamenco troupe performing a handclapping piece and wondering why, especially in the wake of *Drumming's* complexities, he could not do something equally simple and effective.<sup>3</sup> This story appears to be true. Yet such accounts imply that *Clapping Music* arose fully formed as an intuitive response unswayed by the composer's usual agonizing about musical principles and contrapuntal complexities. And this turns out not to be the case.

The evidence of the 1972 sketchbook suggests that *Clapping Music* emerged more gradually as part of a complex investigation of several matters involving meter and rhythm, particularly regarding their perception by the listener. Based in part on previous research, including his work in 1968–69 with a complex electronic device called the Phase Shifting Pulse Gate and with performances of what Reich called "Pulse Music," these explorations led ultimately not only to *Clapping Music*, but also to *Music for Pieces of Wood* (1973). In addition, they laid some of the groundwork for the more pitch-based and texturally complex *Six Pianos* and *Music for Mallet Instruments, Voices and Organ*, both completed and premiered in 1973. A full assessment of the significance of the 1972 sketchbook must take all these compositions into account, as well as the ideas contained in it but unrealized in any of these scores.

Some of the starting points for this enquiry revisit familiar territory: the potential, for instance, of using multiples of the same instrument to make "particular new structures possible" (p. [13]). Other observations work towards aspects which are more obviously new. Reich ponders, for example, the differences in effect between notes played on a percussion or keyboard instrument by a single performer using alternating hands, and notes played by two performers alternating in hocket. In addition, his conclusion that using multiples of the same instrument "makes the question of who is playing what difficult or impossible to answer by listening" (p. [13]) suggests a further move away from his desire always "to hear the process happening through the sounding music"<sup>4</sup> – a desire that had done so much to drive his aesthetic in the late 1960s. Two purely musical examples must suffice here to suggest how a fuller story might eventually be told.

#### *Clapping Music as part of Pulse Music*

The first attempt to notate "Clapping Music" occurred on 22 May, as part of a composition to be called, once again, "Pulse Music" (p. [17]). In this work,

"all the music results from individual pulsing tones. Each player plays certain tones in a steady pulse or in a pattern of pulses. No one plays two different tones one after the other. There is no melodic playing as such – only repeating tones, singly or in chords. Melodic patterns will result from the various interlocks of individual tones" (pp. [17] and [19]).

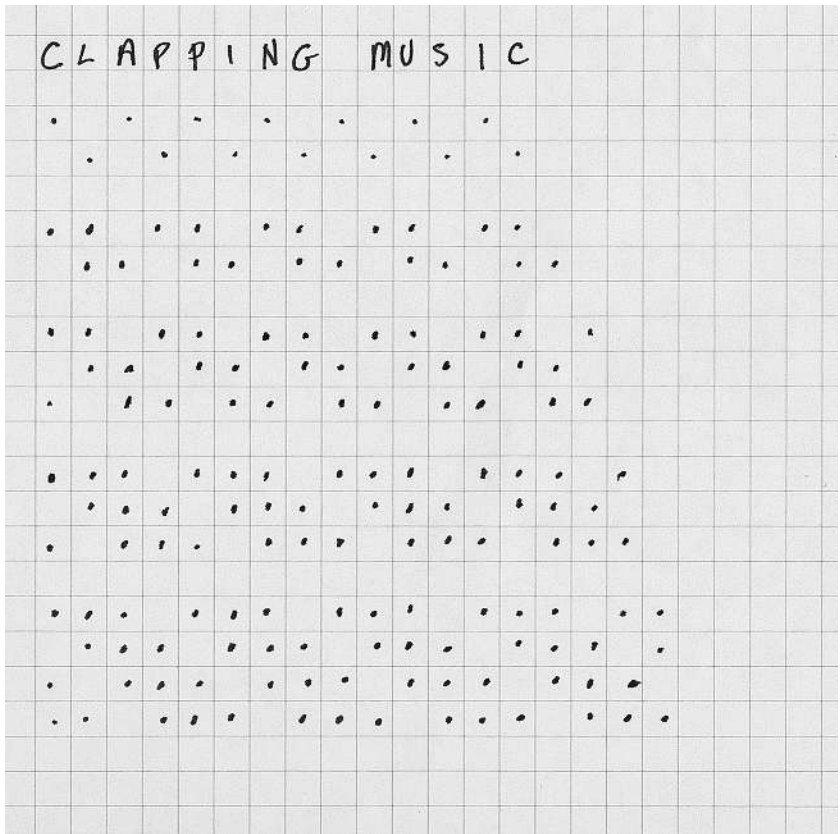
First conceived as “one section with the same musical rhythmic structure performed first by four claves then four pianos” (p. [17]), this work acquired, in the course of 22 May, an extra section placed at the beginning for what appears to be four handclappers. *Example 1* gives the first five lines of this section to demonstrate simple interlocking hocket-based patterns, first with just two performers, then with three, then four. These patterns are explored much further later on.

By the next day, 23 May, Reich had clarified that this section, entitled “Pulse Music – Clapping” (p. [23]), would be scored, like the other two sections of “Pulse Music,” for four players divided into two interlocking pairs. The whole forms “one structure three times” having “one structure three sounds” (p. [23]): first clapping, then claves, and finally pianos. A variety of accents and patterns arising from the different doublings of each note will thus emerge from “the same resulting pattern of continuous pulses arrived at in different ways” (p. [23]). After drawing a comparison with those string quartet textures in Beethoven and Bartók in which pairs of players exchange material, and after pondering the possibility of a “string quartet” comprised of four violins, four violas, and four cellos, Reich proposed that “two people clapping suddenly switch parts with two others clapping” (p. [25]).

By 9 June, however, by which time Reich was in Italy (probably in Rome), the idea of a completely continuous pulse had been replaced by one in which “a series of patterns one against the other = polyrhythms” (p. [45]). The consequent development of this idea then caused him to start using conventional rhythmic notation, for the first time in this sketchbook, to explore how such interlockings and doublings might work, now with two musicians clapping and two others playing claves. A further inspiration turns out to be the experience of hearing Basque musicians playing a folk percussion instrument called the *txalaparta* (or, in Basque, *zalaparta*) in Spain at the end of June. On the 27th, Reich noted that such hocketing music – produced by “2 players with two sticks on 3 boards and they cannot hit the boards at the same time” (p. [57]) – resembled his earlier “Pulse Music.” *Txalaparta* is, he reports, “[t]he equivalent of the phase shifting pulse gate and Four Log Drums in the Basque country” (p. [57]).

#### *Clapping Music as an eventually independent composition*

In August, having returned to his New York studio, Reich made tape realizations of two “graph”-notated pieces for four handclappers. These pieces emerged from the kind of patterns illustrated in *Example 1*: one was written in Rome on 8 June; the other, combining the first two figures of *Example 1*, was jotted down on 15 August. His verdict on hearing them is that they were “not musically interesting” (p. [69], same entry, dated 15 August), and he concluded that



Example 1: First five lines of *Clapping Music* as conceived on 22 May 1972. Sketchbook 19 May 1972 – 20 September 1972, p. [19] (Steve Reich Collection).

“to make an interesting clapping piece one must work with other more perceptible differ[en]ces that would probably mean using more rests and longer *patterns* rather than just pulses in the simplest form. However these simple pulses might be quite beautiful with claves or pianos” (pp. [69–70]).

Working on such ideas, which include the beat-by-beat construction of a pattern in canon with the complete version of the same pattern (the eventual structural basis of *Music for Pieces of Wood*), Reich remained convinced that rigorous process-based ideas were still the way forward for him. “Process?” he writes on 17 August; “without one it’s just so much aesthetics – and ‘ethnic’ sound” (p. [71]). On 24 August, he came up with a “Construction leading to duet: done by reduction” (pp. [74–76]). It was based on the gradual removal, one eighth note at a time, of notes from the following figure (given in *Example 2* together with the first three stages of the reduction process to demonstrate how this works).

Some readers will have noted that the upper line of Figure 1’s typical twelve-beat pattern constitutes the Basic Unit shortly to be used in both

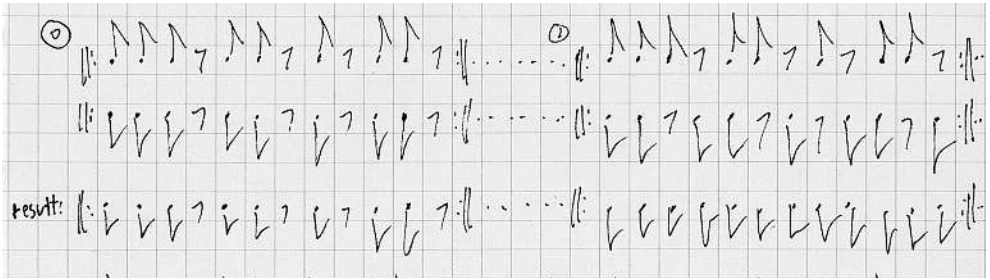
The image shows four numbered musical sketches (1-4) on a grid background. Each sketch consists of two staves. The top staff of each sketch shows a sequence of notes with stems pointing up, and the bottom staff shows a sequence of notes with stems pointing down. The sketches illustrate a 'reduction' process where notes are added to a simple alternating pattern of eighth notes and rests.

- Sketch 1:** The top staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15. The bottom staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15.
- Sketch 2:** The top staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15, 17, 19. The bottom staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15, 17, 19.
- Sketch 3:** The top staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23. The bottom staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23.
- Sketch 4:** The top staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27. The bottom staff has notes on beats 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27.

Example 2: Figures 1–4 of “Construction leading to duet: done by reduction,” 24 August 1972. Sketchbook 19 May 1972 – 20 September 1972, p. [74] (Steve Reich Collection).

*Clapping Music* and *Music for Pieces of Wood* (indeed, it was also taken up later in *Music for Eighteen Musicians* of 1974–76). On 24 August, though, the pattern as we know it from these compositions – groups of 3 + 2 + 1 + 2 eighth notes separated by rests – appears starting on beat 11 of the bar, not on beat 1. The lower line, meanwhile, simply alternates pairs of eighth notes with a single eighth-note rest.

Notes apparently added while or after writing out this duet reveal that Reich was already considering three improvements to this idea: to “start with no doublings and work up from there”; “starting from complete reduction – single beat – and gradually building up in 4 voices to the ‘point



Example 3: Figures 0 and 1 of “Phasing as process. Basic rhythmic figure held as a hocket?” 27 August 1972. Sketchbook 19 May 1972 – 20 September 1972, p. [77] (Steve Reich Collection).

of saturation”); and “hocketing parts of 2 voice construction so that one rhythmic pattern is divided between 2 claves of different pitch” (pp. [74] and [76]). At this point, such jottings were still feeding not only into *Clapping Music*, but also, again, into what would become *Music for Pieces of Wood*, which deploys canonic and hocket-based textures building directly on the above ideas.

Two days later, however, ignoring all these thoughts, Reich asked himself whether the right way forward was, after all, not simply “Phasing as process. Basic rhythmic figure held as a hocket?” (p. [77]). And the next day, 27 August, he reworked the pattern used in the upper line shown above, replacing the process of gradual reduction with that of phasing (*Example 3*).

This, as readers may now recognize, is *Clapping Music* as it was eventually published eight years later, though with several differences, including one very significant one. First, there are no performance indications, i.e. no tempo marks, dynamics, or number of repetitions to which each figure should be subjected. Second, there are minor differences in the notation, including the way in which figures are numbered and whether eighth notes are beamed. Third, and more interestingly, Reich writes out the “result” of the combined lines beneath each figure, presumably so that he can more easily assess their effect.

Fourth (and this is the significant difference), while the line of dots linking each figure is here just a single one, rather than the usual five horizontal lines, it appears that the transitions from figure to figure are still to be achieved by the lower line gradually increasing in tempo against the fixed upper line. This would be consistent with Reich’s practice in all his phasing compositions from 1965 up to the time of the 1972 sketchbook. Yet this approach was ultimately dropped in the final version of *Clapping Music*, the reason being that he considered it “rather inappropriate, since it introduces a difficulty in musical process (phasing) that is out of place with such a simple way of producing sound.”<sup>5</sup>

In August 1972, Reich was apparently not yet certain that he had created a viable piece for handclappers alone. Immediately after writing it out, he suggested performing it as “1 structure 2 times” (p. [79]), first as clapping, then on claves. Essentially, though, he had already completed a work that has remained in the repertoire of Steve Reich and Musicians ever since, and which has been performed, and imitated, by many others worldwide for almost forty years. The achievements of a work which might easily be regarded merely as a short and ephemeral exercise in rhythm, tossed off while its composer awaited fresh inspiration, are considerable. Not the least of these is the subtle balance that *Clapping Music* effects between two concerns: the need to create “more perceptible differences” (as the above quotations from the 1972 sketchbook put it) between doublings and alternations of single sounds, and the desire to make “the question of who is playing what difficult or impossible to answer by listening.” The role of rigor in establishing such processes is also still an issue.

The harmonic and textural concerns behind *Six Pianos* and *Music for Mallet Instruments, Voices and Organ* soon began to channel the composer’s musical development in very different directions. Yet the 1972 sketchbook offers telling support for the view that the completion of *Drumming* by no means exhausted Reich’s deep immersion in rhythmic and metrical principles and practices, which would remain fundamental to his way of thinking about music and to the evolution of his own composing during the 1970s.

<sup>1</sup> Sketchbook 19 May 1972 – 20 September 1972, Steve Reich Collection, Paul Sacher Foundation. Quotations with page numbers in square brackets refer to this sketchbook. The original lacks pagination. This numbering starts with p. [1] as the first inside page, following the recto/verso of the plastic cover. The complete sketchbook contains 105 pages plus cover. Here, and below, I have changed the composer’s use of capital letters to the more expected lower case.

<sup>2</sup> Steve Reich, *Writings about Music, 1965–2000*, ed. Paul Hillier (New York: Oxford University Press, 2002), p. 34.

<sup>3</sup> See, for example, Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2000), p. 225.

<sup>4</sup> Steve Reich, *Writings* (see note 2), p. 34.

<sup>5</sup> *Ibid.*, p. 68.