Language (and its notations) – according to its potentialities – is like the blind creator / constructor/ of a world that has to be graspable intuitively, to a *certain* extent (or at least partially).

Paul Valéry

The words that Paul Valéry applied to mathematics in his "Cahiers", stating that "the independence of operations from their content [is] the pre-eminent intellectual fact" are fulfilled in the work of Paul Heimbach. His series of graphic works, portfolios and artist's books are evidence of his concentration on the processes of their genesis – but these are not processes in the material or technical, but in the intellectually constitutive sense. Here indeed, the dominant formal models of variation and permutation are independent of their objects (contents); in other words, they are independent of *what* is varied or permuted. The work is defined essentially in the fact *that* the corresponding operation is carried out. Thus – again in Valéry's words – the "content is *created* by the operations themselves" and structural units then evolve, behind which the author seems to disappear.

It is basic assumptions like these that help Paul Heimbach to ensure the coherency of his oeuvre, which has been developing for more than four decades now. The early artist's books dating from 1967/68 already laid down the subject: Heimbach used paper to absorb the areas and forms of ink floating on water. As time passed, the changes on the water surface became a spatial sequence in the unique book. Heimbach then retraced the outlines from the books No. 1 and No. 3 onto transparent paper for the books No. 2 and No. 6. When the book is opened, therefore, several images overlap and the progression of viewing becomes the simultaneity of the concept: of the process from which they evolved. Paul Heimbach developed his idea of relativising the significance of the artefact and seeing the essential work in the concept on which it was based quite independent of similar strivings in American Conceptual Art. "The idea becomes the machine that makes the art", Sol LeWitt had put forward in 1967, and two years later he declared: "ideas alone can be works of art." In Heimbach's case, however - he had been confronted with works by Sol LeWitt quite suddenly in 1974, as an assistant dismantling an exhibition in the Kölner Kunstverein –, his book objects always remained a material corrective to the pure idea until the late 1980s. He discovered water, ice, fire and air bubbles as generative materials to create unexpected visual structures in detail. Just as John Cage – in his aesthetics of experimental music – attempted to liberate the sounds from their function as signifiers and devoted his "attention to the activity of sounds", during this period it seems that Heimbach was captivated by unusual processes of generation, his aim being to abandon traditional forms of expression and communication. It is not until the *Newspaper Adaptations* from 1989 that we find more strictly conceptual references again; when the letters of a page of newspaper are transposed onto 26 sheets of tracing paper so that only the occurrences of a single letter can be found on each sheet. Laid one on top of the other, the 26 sheets reconstitute the complete text of the newspaper page. Something that had been the transfer of time into space in the first artist's books is now a dissolving of the written language into its individual letters, which highlights the differing distribution of the symbols constituting writing on the 26 sheets. For Paul Heimbach, this opened the way to the mathematical and calendar works of the last twenty years. First of all, as from 1992, he produced his books of magic squares or parquet patterns: 720-page sets with the permutations of eight-line squares of mercury. In Sigillum Marcurij, Heimbach translated the numbers 1 to 64 into corresponding tones of grey and so created his first visual illustration of a mathematical context. But how should we "read" such images? What does it signify when the sum of all the grey tones in a line or a column is always the same? The 24 Drawings Based on Parquet by Manuel Moschopoulos (1994) indicate an escape from the dilemma of conceptual translation and aesthetic experience. Parquets are number fields that develop at every place in magic squares (with a specific edge-length). This phenomenon – which can be realised in calculations but remains unvisualised – is incomparably easier to understand in a visual translation. Here, symmetries and

repetitions that remain hidden in the field of numbers become obvious. Their foundation in a 14th century mathematical system prevents the drawings from giving the superficial impression of a simple, mosaic-like game.

Finally, the *Mask Combinations* (as from 1999) display structural features of magic squares: transparent areas printed on foil or gauze can be combined, inverted and reflected – and when overlapped, they recombine repeatedly into magic squares. Here, the dichotomy of variation and permutation is interrupted, for the artist neither offers a choice of realisations nor does he show the sum of all possible permutations. The viewer brings about the realisations himself and directly experiences the difference between the material object and the intellectual concept. The same difference is revealed in the impossibility of completing the calendar series *From Dates* (since 2005). The dates of birth and death of artists, composers and writers, transposed into coloured strip-codes, each represent individual fields within the sum of possible combinations. The overall number of combinations is hundreds of millions. Obviously, the essentials of Paul Heimbach's opus magnum are found beyond the individual sheets, which always remain mere emanations of the underlying principle.

The question of the relations of form and content is posed with a new radicalism in *From Dates*. One is reminded perhaps of Hegel's reflections in the *Encyclopaedia of Philosophical Sciences*, where he maintains that content provides a doubling of form, insofar as it "has the *form within itself*, *just as much* as the form is something external to it" and also, "not reflected inwardly, it is the external existence, which is indifferent to the content". In reflection, form and content revert to one another, and Hegel can state in his appendix to §133: "The only genuine works of art are precisely the ones whose content and form show themselves to be completely identical." This same idea is redeemed in Heimbach's calendar series. The individual sheets always point to the millions of uncompleted realisations, whereby the form, the purely material exemplification of the content, turns into it, and the "tangible [...], which can be perceived by the senses" becomes what it is via that which it is not: a notional concept and a different, optional realisation.

Volker Straebel

¹Paul Valéry: *Cahiers*. Vol. 5, trans. by Reinhard Huschke, Hartmut Köhler, et al., ed. by Hartmut Köhler and Jürgen Schmidt-Radefeldt. Frankfurt am Main: S. Fischer 1992, p. 312. Emphasis in the original.

² Ibid, p. 300.

³ Ibid. Emphasis in the original.

⁴ Sol LeWitt: "Paragraphs on Conceptual Art", in: *Artforum* 5 (June 1967), 79-81, here p. 79.

⁵ Sol LeWitt: "Sentences on Conceptual Art", in: 0 To 9 No. 5 (Jan. 1969), 3-5, Sentence #10.

⁶ John Cage: "Experimental Music" (1957), in Cage: *Silence. Lectures and Writings*. Hanover, New Hampshire: Wesleyan University Press 1961, pp. 7-12, here p. 10.

⁷ G. W. F. Hegel: *Enzyklopädie der philosophischen Wissenschaften im Grundrisse* (1830) [=Werke 8-10]. Frankfurt am Main: Suhrkamp 1986, Part 1, p. 264 (§133). Emphasis in the original.

⁸ Ibid.

⁹ Ibid, Part 1, p. 265 (§133).