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# Rhythm as Aesthetic Category (Part 3)

- Recherches

- Le rythme dans les sciences et les arts contemporains

- Esthétique - Nouvel article

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## Rhythm as Living Organism (Kugler - 1842-1859)

In the 1820s, the future German art historian and cultural administrator for the Prussian state Franz Theodor Kugler (1808-1858) studied literature, music, visual arts and architecture at the University of Berlin. As Schnaase, he attended some of Hegel's lectures. Among his numerous publications, I will concentrate on his *Handbuch der Kunstgeschichte - Handbook of Art History* first published in 1842 then republished many times in the 19th century, and the first three volumes of his *Geschichte der Baukunst - History of Architecture* dedicated to *Oriental and Ancient Architecture* (1856), *Romanesque Architecture* (1858) and *Gothik Architecture* (1859). The whole body comprised two more volumes which were completed after Kugler's death in 1867 and 1872-1873 by younger collaborators as Jacob Burckhardt (1818-1897) und Wilhelm Lübke (1826-1893).

As Schnaase, Kugler developed his work within the Hegelian frame. Whatever the society and the period, art represented "in physical form the life of the Spirit [*das Leben des Geistes*]" (*Handbuch der Kunstgeschichte*, 1842, p. 3). Therefore, it followed the same "gradually progressing" course (p. 3). Art was both an anthropological datum and a sign of spiritual development. Naturally, as most of his Hegelian contemporaries, Kugler considered that the various peoples had differently contributed to this history according to their own particular spirit: the "Germanic" style that followed the Romanesque style, for instance, was an original creation of the Germanic nations. As we shall see, he changed his mind, though, in the third volume of his *History of Architecture* where he explicitly recognized the origin of the Gothic style in Northern France.

Like all his predecessors, in the 1840s, Kugler mostly referred to the Vitruvian sense of rhythm as "appropriate proportions or relations," as in the following two examples concerning the Alhambra of Granada and Germanic churches in the Baltic region.

In the process, however, a harmony, a eurhythmy, is poured out over the whole as over the predominant parts of architecture, and yet embraces the playful arbitrariness of forms as a silent and sure rule. Among the various parts of the Alhambra, the Lions Court is primarily remarkable, in the middle of which stands the much-praised Lion fountain. (*Handbook of Art History*, 1842, p. 405, my trans.)

The Germanic style of building in the Baltic region differs from that of the origin of the system, which flourished chiefly in western Germany, by a far greater simplicity and severity. The feeling is cooler and calmer, the lively structuration of the architectural whole, the rhythmically moving development of its parts, retreats to the benefit of the mass effect. (*Handbook of Art History*, 1842, p. 562, my trans.)

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The same use of the term rhythm is pervasive in later works. I found dozens of occurrences in the three volumes on the *History of Architecture* written by Kugler himself. I will limit myself here to a single example taken in his comments regarding the ground plan of the Cologne cathedral. Although he now clearly situated the origin of the new Gothic style in Northern France, Kugler claimed that the German spirit had yet introduced a noticeable rhythmic change by more "strictly" and "soberly" systematizing the relations between the parts.

The cathedral follows, even more than the above-mentioned monuments in the Lower Rhine, the model of the French Gothic. It resolutely joins the cathedral system [*Kathedralensysteme*] which had been completed in Northern France in the first half of the 13th century; it has to be considered as a sequel of those monuments. It forms the capstone, the completion of their aspirations. [...] Such is the basic element of the French Gothic but its renewed transformation betrays the peculiarity of the German artistic spirit. [...] From the very beginning, the building expresses the most moderate sobriety, the noblest and most sublime rhythm [*die edelste und erhabenste Rhythmik*], the sensation of a complete organizational penetration of the task [...] The relations are in perfectly purified mutual harmony [*in völlig geläutertem gegenseitigem Einklange*]; in the plan arrangement of the apsidal wreath, there is a strict rhythm [*eine feste Rhythmik*] as in no other building of this system [*dieses Systems*]. (*History of Architecture*, vol. 3, 1859, p. 217, my trans.)

Yet, in the 1850s, Kugler began to introduce into his massively dominant Vitruvian use an entirely novel concern for the movement. Contrary to what Schnaase sustained by abusively extending the Romanesque model to the Gothic churches, Kugler argued, the ground plan of the latter did not imitate a fixed and mathematical Platonic arrangement but expressed, instead, the proliferating "movements" of an inner life. Therefore, the rhythm in a building or in an ornament was not only "*eine Gliederung* - a structure," but "*ein System* - a system," or "*ein Organismus* - an organism," animated by an inner drive or "basic movement."

Even the part of the ground plan which manifests itself as the result of a rational calculation and which one likes to consider as the glory of the Gothic system the polygonal closure of the choir with an ambulatory and a wreath of apses was not successful. In itself, however, it gives the image of the purest spatial organism [*Organismus*], the basic movement [*Grundbewegung*] of which find here in fact a perfect outcome, by passing from the central nave into the polygon, then flowing [*strömend*] through its openings (between the pillar arcades) into the lower side spaces and finally ebbing away in a rhythmically repeated play in the wreath of the surrounding apses. (*History of Architecture*, vol. 3, 1859, p. 23, my trans.)

This vitalist and metaphysical conception of architecture, with its cosmic connotations, was yet accompanied by a new concern for corporeal and visual sensation which anticipated eventual developments. The "rhythmic termination of the movement" was also that of the visitor strolling around in the church (I agree here with Vasold, 2010, p. 39).

The semicircle of the apse, already repeatedly replaced by deviant forms in late-Romanesque architecture, was totally incompatible with the Gothic system. The construction on pillars of the latter made an angular end absolutely necessary; the rhythmic termination of the movement required a polygonal end, the spaces of which were therefore necessarily narrow (in relation with the inner total breadth) and covered with corresponding narrow vaulting caps. (*History of Architecture*, vol. 3, 1859, p. 11, my trans.)

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And it was the movement of his eye "peeping through" the pillars and sliding on the various parts of the building, and naturally that of Kugler's reader who was moved from within by his descriptions.

The spaces between the articulate pillars of the choir are too narrow for the eye peeping through [*das hindurchblickende Auge*] to receive a full impression [*einen vollen Eindruck*]; the latter is all the more dull that, at every point, it encounters a different spatial direction (according to the ever-changing position of the polygonal side chapels); it becomes overcast in a double measure, since the ends of those posterior spaces are interrupted by windows on all sides, and thus result in a change in the light effect, which is necessarily incomprehensible to the eye of a person standing in the inner space. (*History of Architecture*, vol. 3, 1859, p. 23, my trans.)

This emphasis on movement and life may explain why, as Schnaase, Kugler began to use yet still not very often rhythm as synonymous with regular alternation or repetition. In volume 1, the repetitive ornaments in Egyptian temples, the Greek and Roman rows of columns were now characterized as "rhythmic."

[The capitals] are partly composed of leaves and flowers of aquatic plants or fern, which are laid over in slight relief and always in the happiest rhythmic alternation, partly of other foliage motive, as vine tendrils with even freer decorative game. (*History of Architecture*, vol. 1, 1856, p. 23, my trans.)

The outer walls of the temple house are often provided with half-columns, which repeat the column arrangement of the hall and decoratively reproduce the lively rhythm of the Greek peripteral arrangement. (*History of Architecture*, vol. 1, 1856, p. 279, my trans.)

The relation between the new concern for life and the repetitive or alternating acceptance of rhythm was also visible in volume 2. In the Romanesque architecture there was like "a rhythmic pulsation of forms" which in an expression now opposing rhythm to the Vitruvian model "dodged around the measured severity of the architectural composition."

The pillars of the vaulted building, with the leaning supporting brackets of these vaulted structures [...] form, in proportion to the latter parts, an often lively alternation [*oft lebhaften Wechsel*] of right-angled protruding masses, half-columns and round rods. It is like a rhythmic pulsation of forms [*Es ist wie ein rhythmisches Pulsiren der Formen*], which, more or less fluidly, in rougher or more delicate sounds [*Klängen*], dodges around the measured severity of the whole architectural composition. (*History of Architecture*, vol. 2, 1858, p. 30, my trans.)

Naturally, this association of rhythm, alternation, and life, was the most adequate for describing, in volume 3, Gothic architecture, which was animated by a "living pulse," as well as Gothic ornamental work, which due to its branching lines was entirely "penetrated by rhythm."

There is like a living pulse in these masses and all their individual parts. In the liveliest contrast to the unstructured, heavy struts of the aisles, they are already furnished from the base with rod infill and slender tracery niches, from freer and thinner design [...]. The same rule is applied in the continuous window openwork, the rich tracery of which contains a renewed reshaping of the choir superstructure, in the lively division of its outlines, in the traceried ornamented gables above them, which always cut through the horizontal cornices. Everything is penetrated by a rhythm, everything, as diversely structured, is determined by a rule. (*History of Architecture*, vol. 3, 1859, p. 224-225, my trans.)

As Schnaase, Kugler was instrumental in the rhythmological mutation that occurred around the middle of the 19th century in art history and aesthetics and that began to substitute the Vitruvian-Albertian notion of rhythm with a new concept based on alternation and regularity. Unlike Schnaase, however, who remarkably balanced his Hegelian presuppositions with sensitive and in fact quite accurate reflections on poetics, Kugler developed his theory of art in an Idealist direction, borrowing moreover from the strong vitalism that had been spreading in life science during the last decades, yet not without opening new paths towards the psychological aesthetics that was to meet a large success at the end of the century.

To conclude this section, I will add only a few words on the Swiss historian of art and culture Jacob Burckhardt (1818-1897). For many reasons, one would expect to find new insights on rhythm in his work. As a student, he studied first in Berlin and attended the lectures of Leopold von Ranke, the founder of academic history, who transmitted him his distrust towards Hegel's metaphysical treatment of history. Then, in 1841, he went to Bonn and studied art history under Franz Kugler to whom he dedicated his first book. He spent most of his academic career in Switzerland at the University of Basel where in 1869 he met and appreciated the young Nietzsche and remained throughout his life reluctant towards German nationalism and claim of cultural superiority.

However, the concept of rhythm was rarely mobilized by Burckhardt in his *Der Cicerone: Eine Anleitung zum Genuss der Kunstwerke Italiens - The cicerone: or, Art-guide to Painting in Italy. For the Use of Travellers* (1855), and most of the time in the traditional Vitruvian manner. Even more startling, there was not a single mention of rhythm in his world-famous *Die Kultur der Renaissance in Italien - The Civilization of the Renaissance in Italy* published in 1860 and only two occurrences in the volume he published in 1867 in Kugler's series on *The History of Architecture* (vol. 4) under the title *Geschichte der Renaissance in Italien - The History of the Renaissance in Italy*. I could not extend my inquiry into later texts but it was as if Burckhardt had rejected the concept with the Romantic, Hegelian, nationalist and finally technical prejudices it was related with. There was, deeply embedded in it, something like a Platonic and Idealist burden that he did not want to assume.

## Rhythm as Incorporation of Series (Semper - 1860-1863)

Gottfried Semper (1803-1879) was a German architect, art critic, and professor of architecture. He is noted for the construction of the Opera House in Dresden in 1838-1841 and for having taken part in the May 1849 failed uprising. Pursued by the police of the victorious regime, he went into exile for the rest of his life, first in Paris and London, then in Zürich (1855-1871) and Vienna (1871-1876). In 1861 and 1863, he published, in two volumes, *Der Stil in den technischen und tektonischen Künsten, oder Praktische Aesthetik - Style in the Technical and Harmonic Arts, Or, Practical Aesthetics*. I chose to translate the adjective *tektonisch* as "œharmonic" because, in architecture, it denoted the result of the *Tektonik* viz. "die Lehre vom harmonischen Zusammenfügen von Einzelheiten zu einem Ganzen - the theory of harmoniously combining units into a whole" (Gerhard Wahrig, *Deutsches Wörterbuch*, 1975, p. 3657).

Semper's contribution is remarkable on several accounts. First, unlike Schnaase and Kugler, he was not part of the Hegelian movement, which was actually receding in the 1860s. As Burckhardt, he rejected the Historical Idealism. Second, unlike his predecessors, he explicitly theorized about the concept of rhythm and made it into a central category for art history and aesthetics. He directly addressed the issue in the very first pages of volume 1. Influenced by the growth of empirical psychology but eager not to abandon aesthetics to sheer subjectivism, Semper held that Beauty was the byproduct of both the formal properties of the art work and their effect on the viewer. Even if Semper took into account Nature's violence and absurdity, where "the individual is created only to serve as food for the whole" (p. XXII, Semper's ital.), the gap between the formal and the empirical aspects of Beauty was overcome because, he claimed, Nature itself was providing the norms (*die Gestaltungsgesetze* - the configuration laws) which

ensured a pre-established harmony between human aesthetic sensibility and the organizing laws of the cosmos.

Strikingly, he gave as example of this harmony between man and nature the rhythmic pleasure already taken by the "simple, primitive man" from "the regularity of periodic space and time sequences," whether in "wreath, a string of pearls, scrolls, round dances," or in "rhythmic tones" used in dancing or rowing. This natural "rhythmic" pleasure, he argued, provides the natural foundation of the only two "purely cosmic (nonimitative) arts," namely music and architecture, but it is essential to all other arts, considered by Semper as simply "imitative."

Yet this artistic enjoyment of natural beauty is by no means the most naive or the earliest manifestation of the artistic instinct. The former is in fact undeveloped in a simple, primitive human being [*dem einfachen Naturmenschen*], who already delights in nature's creative law [*das Gesetz der bildnerischen Natur*] as it gleams through the real world in [the regularity of periodic space and time sequences], in wreaths, a string of pearls, scrolls, round dances, the rhythmic tones attending them, the beat of the oar, and so on. These are the beginnings out of which *music* and *architecture* grew, the two highest purely cosmic (nonimitative) arts, whose legislative [*legislatorischen*] support no other art can do without. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXI-XXII, trans. Harry F. Malgrave & Michael Robinson, my mod.)

Consequently, all beautiful forms produced by Nature or by Art must conform to the law of "*Eurhythmie*," or, in other words, any beautiful form is necessarily "*eurhythmisch*." However, this aesthetic quality was not defined any longer as Schnaase or even Kugler had suggested it. Semper proposed a third way which blended together the traditional architectural Vitruvian-Albertian notion based on the proportionate arrangement of the whole, now considered as a cosmic law, and the new scientific and musical emphasis on repetition and regularity, henceforth attributed to human psychology.

To illustrate the first side of his thought, Semper gave beautifully illustrated examples of snowflakes and flowers (p. XXV, XXVI). In this sense, *Eurhythmie* denoted a symmetrically-arranged whole (symmetrical here in the modern sense) which stood "in no direct relation to the observer" but existed *per se* naturally by being regularly organized around a center and neatly circumscribed and separated from the environment by a frame. From a naturalistic viewpoint, *Eurhythmie* required "center," "symmetry," and "closure."

[Since] *Eurhythmie* is closed *Symmetrie*, [it] stands in no direct relation to the observer but only to [the] center around which the elements of the regular form are arranged and strung peripherally.

To establish a rapport [*Rapport*] with the eurhythmic figure, the observer has to imagine himself at the center of relations [*Beziehungen*]. Therefore, verticality [or] horizontality are not basic demands of the eurhythmic figure; its [essence] is *closure* [*ihr Wesen ist Geschlossenheit*]; it expresses symbolically the absolute concept of [inclusion] [*des Einschlusses*] and therefore alludes to what is [included] [*das Eingeschlossene*] as the actual object, as the center of the eurhythmic order [*das Centrum der eurhythmische Ordnung*]. (*Style in the Technical and Harmonic Arts*, I, p. XXVII, 1861, trans. Harry F. Malgrave & Michael Robinson, my mod.)



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Among the three categories composing *Eurhythmie*, center, symmetry, and closure, Semper considered that the last was the most important one. In the final analysis, *Eurhythmie* resulted from the "framing" which enabled "the regular concentric structuring and ordering of formal elements."

The frame is one of the most [important] basic forms used in art: no enclosed image without frame, no scale without it. *Eurhythmie* comes into play only when a frame is used: a regular concentric [structuring] [*Gliederung*] and [ordering] [*Ordnung*] of formal elements that form an enclosed figure around the framed object. (*Style in the Technical and Harmonic Arts*, I, p. XXVII, 1861, trans. Harry F. Malgrave & Michael Robinson, my mod.)

However, Semper also thought that within the frame and subject to its structuring power the elements were regularly repeated and segmented, thus introducing the second sensitive, "musical," aspect of *Eurhythmie*.

The [structure] [*Gliederung*] of eurhythmic figures results from certain laws of repetition with cadence and caesuras, with elevations and depressions from which, when interlinked, the closed figure emerges. [In this respect,] musical figures (melodies) and visual ones are subject to the same laws, except that the ear is able to follow and [differentiate] far more complex arrangements than the eye, which has to absorb [the whole] at once. (*Style in the Technical and Harmonic Arts*, I, p. XXVII-XXVIII, 1861, trans. Harry F. Malgrave & Michael Robinson, my mod.)

*Eurhythmie* was therefore the result of the interaction and combination of the natural structuring power of the frame and the psychological recurrence and segmentation power of the elements, in other words, as far as we are concerned, of the architectural Vitruvian-Albertian concept and the scientific and musical one.

*Eurhythmie consists in a closed sequence of uniform sections of space.* [Die Eurhythmie besteht in einer geschlossenen Aneinanderreihung gleichgeformter Raumabschnitte.] (*Style in the Technical and Harmonic Arts*, I, p. XXVIII, 1861, my trans., Sempers ital.)

Semper claimed that Vitruvius had misunderstood this interaction which by contrast had been plainly grasped by the Greeks and had reduced it to a sheer system of mathematical proportions.

Undoubtedly the Greeks devised the canon for *Eurhythmie* as [artfully] [in architecture] as in music and poetry. We sense it from the powerful [interplay] of Doric columns, in the cadence of the entablatures, in the continual recurrence of the same decorative [elements] all of which stimulate and soothe us but do not tire us. This canon was largely forgotten by the Roman period, [for Vitruvius confuses *Eurhythmie* with proportion, confounding] all formal-aesthetic concepts that he probably picked up by misinterpreting some Greek author. The relevant passages by this writer (bk. 1, chap. 2), far from elucidating the Greek principles of Beauty, only spread confusion. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXVIII, trans. Harry F. Malgrave & Michael Robinson, my mod.)

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Should one start from the right interaction of opposite informing forces, one could identify three main types of *Eurhythmie*.

Therefore, although there is an infinite variety of eurhythmic sequences in optical figures, there are no more than three different kinds of structuring [*Gliederung*]. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXVIII, my trans.)

The simplest one was based on the regular alternation between formal units and intervals which are all equal to each other.

The first way in which this [the *Eurhythmie*] can be done is at even intervals, so that each element is [throughout] [*durchaus*] identical to the others. Such *simple* series include dentils, fluting, [leaf wreaths, the simplest pearl rods (without discs) and the like]. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXVIII, trans. Harry F. Malgrave & Michael Robinson, my mod.)

The second type of *Eurhythmie* was based on the "repetition of unlike parts" separated by different "intermediate elements."

The series becomes *alternating*, when we separate the elements [in the above-mentioned examples] with intermediate elements. This is the case, for example, when the simple [leaf wreath], in the manner of the leaf-and-dart decoration, changes into a series of two [opposite leaves, or when discs are inserted between the beads.] The egg-and-dart molding with its so-called arrowheads is another very familiar example of an alternating series. The same principle of alternation is evident in the [garland] of metopes and triglyphs. Contrasts in form and design, as well as color, are necessary [for the clear expression of the alternating order. The recurrence of unlike parts in eurhythmic cadence is the principle of alternation]. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXVIII, trans. Harry F. Malgrave & Michael Robinson, my mod.)

The third type was the most complex and could not be complexified further due to the limitations of the human eye even if finer subdivisions were sometimes used where plastic *Eurhythmie* would appear too "dry and stiff," for example in "curtains, embroideries, cloth fabrics, shawls, etc." (p. XXIX). It was based on the introduction of "caesuras" or "interruptions" into the previous two types.

In addition to the simple and alternating series, [the eye allows a third one], which is the richest. It involves interrupting a simple or alternating series with periodic caesuras [*durch periodische Caesuren*]. This again was known to the Greeks, although they deliberately used it sparingly and only on accessories. Examples: pearl strings with two or more [disks] (an easily understood of unlike parts), lion heads and masks that punctuate garland decorations in the cymatia of Greek entablatures. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXVIII, trans. Harry F. Malgrave & Michael Robinson, my mod.)

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The use of caesuras introduced "painterly-musical" rhythms into architecture, while the two previous kinds were by contrast dominated by "plastic" rhythms.

This *intercalation* [Intersekanz] is conducive to the romantic mood and has a more painterly-musical effect [*mehr mahlerisch-musikalisch wirkend*], while *simple* and *alternating Eurhythmie* corresponds to plastic beauty. (*Style in the Technical and Harmonic Arts*, I, 1861, p. XXIX, trans. Harry F. Malgrave & Michael Robinson)

However, according to Semper, the last kind of *Eurhythmie* was rarely brought into play by the Greeks and flourished principally in the "barbarian building style, as found in die Hindu, Arabian and Gothic architecture," which jettisoned "the simple column rhythm [*den einfachen Säulenrhythmus*] of the Ancient buildings and adopted the alternation between columns and pillars" (p. XXIX, n. 1 - same expression in vol. 2, 1863, p. 456). Quite innovatively this will be discussed again by Riegl only at the end of the Century Semper extended his theory to applied arts and crafts. The third *Eurhythmie* was indeed also widely used in "polychrome representation, surface decorations, tapestry, ceramics, inlaid metal, woodwork, and so on." (p. XXIX), whose introduction into art history, aesthetic and actual building practices was, probably, Semper's most significant and well-remembered achievement.

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Between the 1840s and the 1860s, the concept of rhythm underwent a significant change in art history as well as in aesthetics.

1. Whereas it had been considered, since the Renaissance, under the guise of eurhythmy, chiefly as a criterion for aesthetic judgment based on appropriate proportions, it became a versatile tool, a methodological category, for describing and analyzing the works of art, first in architecture, then in the other fine arts.
2. Except in Schnaase's attempt to derive a new content for the concept of rhythm from poetics, most of this development occurred, however, within an Idealist frame which maintained the Platonic metric paradigm.
3. This probably explains, since no alternative was really envisaged, why the concept of artistic rhythm was more and more attracted by the new scientific metric paradigm, which was fast and strongly developing.
4. This general metric trend must not hide, yet, the few suggestive contributions of this period. Kugler's comparison of the artistic rhythm with a *living organism*, a *system*, or Semper's theory of the *incorporation of alternating series into artistic wholes*, were both attempts at surpassing the limitation of the metric paradigm. Both aimed at integrating its successions either through the postulation of an inner spiritual common drive guiding the proliferation of artistic forms, or through that of an outer natural common framing power ensuring, by integrating the otherwise dispersive psychological forces, the emergence of artistic forms. They were opposite theoretical strategies, respectively based on Idealism and Naturalism, but both demonstrated a certain realization of the limits of the metric paradigm.

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