Concepts of creation: historiography and design in Gottfried Semper

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In the 'Prolegomena' to *Style in the Technical and Tectonic Arts*, Gottfried Semper expressed what had motivated him to undertake his wide-ranging studies of art history and cultural history. For him – as an architect who came from the practical field and was committed to it – history was in no sense an end in itself. Instead, research into historical phenomena was for him an activity explicitly carried out in the service of the design or 'artistic invention'.¹ He made this overtly clear in a prominent place – in the subtitle of his principal theoretical work, *Style* – by describing his work as a contribution to the field of 'practical aesthetics'. At the same time, however, Semper also emphasized the distance between his historical-theoretical work and the practice of architecture. His approach was not intended to provide a 'handbook for artistic practice'. He was not concerned with demonstrating 'how to create a particular art-form', but rather with 'how it comes into being'.² This suggests a tension between historiography and design that Semper succeeded in making productive for both fields – as shall be argued below.³ The focus here will be on the impact of two scientific fields Semper drew on: archaeology as it had been

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³ On this view this paper differs in its approach from Mari Hvattum's contrasting juxtaposition of poetics on the one side and a hard science of architectural objects ('practical aesthetics') on the other in Semper's theoretical work; cf. Mari Hvattum, 'Gottfried Semper: Between Poetics and Practical Aesthetics', 64: 4, 2001, 537–46; this approach further elaborated in her PhD dissertation: Mari Hvattum, *Gottfried Semper and the Problem of Historicism*, Cambridge etc.: Cambridge University Press, 2004.

formulated methodologically and theoretically and tested in practice around 1830, and contemporary evolutionary biology.

The hermeneutic method in Semper's scientific work

Semper developed his theory of style and design by distancing himself from three approaches he had observed in contemporary architecture. He characterized these in the 'Prolegomena' to *Style* as follows: the 'materialists', who derived all design decisions from the material used; the 'historians', who enslaved themselves to history and whose goal was to produce imitations that were as stylistically faithful to their models as possible; and finally the 'purists, schematists, and futurists'. The latter group comprised two subtypes: firstly, architects whose designs were guided by strictly circumscribed formal aesthetic models; and secondly, architects who were always 'on the hunt for new ideas' and were given to 'boastful displays of thoughts, profundity and richness of meaning', i.e. architects who believed in the possibility of pure invention.⁴

With regard to the historians, Semper then distinguishes between two types of architect who completely subordinate themselves to history. The first faction consists of the neo-Gothics, whose historical models are preserved with greater intactness. The second is the classical school, which appeals to a far more fragmentary legacy from antiquity. From the point of view of Semper's critique of imitation, the classical school has an advantage over the neo-Gothics: It has the good fortune to be able to look forwards, since archaeological excavations alone would never suffice 'to reconstruct something whole from the mutilated remains of antiquity'. This is 'ultimately (...) left to the divining sense of artists'.⁵

The key phrase here is 'divining sense'. It belongs to the context of hermeneutics around 1800 and its adaptation in the natural sciences, and appears in Semper's referring to the work of Alexander von Humboldt and Georges Cuvier as his models.⁶ Humboldt and Cuvier combined empirical research into material facts with an interpretative level that might be classified as both scientific and poetic. Humboldt in particular reflected explicitly on this interplay between science and the poetic imagination.⁷ For him, the general goal of all scientific research was to achieve an understanding of the global coherence of phenomena while admitting that such

⁴ Semper, *Style*, 77–81. The 'historians' (*Historiker*) translated anachronistically as 'historicists' in this edition.

⁷ See Bettina Hey'l, *Das Ganze der Natur und die Differenzierung des Wissens: Alexander von Humboldt als Schriftsteller* (= *Quellen und Forschungen zur Literatur- und Kulturgeschichte;* 47), Berlin and New York: Walter de Gruyter, 2007.

⁵ Semper, *Style*, 79.

⁶ Cf. Michael Gnehm, *Stumme Poesie: Architektur und Sprache bei Gottfried Semper*, Zurich: gta Verlag, 2004, 27–32, 55–6.

an understanding was a continuing process that could never be completed. To approach a global vision, Humboldt combined detailed empirical research with wide-ranging theoretical interpretations, which in turn included as a crucial quality the poetic power to compose all of the individual facts into an overall picture. In the preface to *Cosmos*, Humboldt thus describes his scientific work as a 'composition', rendering visible the general interconnectedness of individual things and phenomena that he had observed in his empirical research.⁸ He expresses this in a passage that formulates a sort of poetics:

This general picture of nature, which embraces within its wide scope the remotest nebulous spots, and the revolving double stars in the regions of space, no less than the telluric phenomena included under the department of the geography of organic forms (such as plants, animals, and races of men), comprises all that I deem most specially important with regard to the connection existing between generalities and specialities, whilst it moreover exemplifies, by the form and style of the composition, the mode of treatment pursued in the selection of the results obtained from experimental knowledge.⁹

The methodological reference point for this practice, as described by Humboldt, was hermeneutics. Within this methodological approach archaeological hermeneutics represented the decisive, more narrowly defined horizon of his discipline for Semper.¹⁰ He may already have encountered it while he was a student in Göttingen through the work of Karl Otfried Müller. The professor for archaeology had developed the idea of a total form of history as a 'representation where all the spiritual and inner movements had to coincide in order to grasp Hellenic life in every respect of its development'.¹¹ In a letter written in 1833, Müller defined the field of

¹¹ 'in deren Darstellung alles geistig und innerlich Bewegende zusammentreffen müßte, um das Hellenische Leben, wie es geworden ist, in allen Beziehungen aufzufassen'; Karl Otfried Müller, *Geschichten Hellenischer Stämme und Städte*, vol. 1: *Die Orchomenos und die Minyer*,

⁸ Alexander von Humboldt, *Cosmos: Sketch of a Physical Description of the Universe*, vol. 1, trans. Elise C. Otté, London: Henry G. Bohn, 1864, xi. (Original edition: *Kosmos: Entwurf einer physischen Weltbeschreibung*, vol. 1, Stuttgart and Augsburg: Cotta, 1845.)
⁹ Humboldt, *Cosmos*, vol. 1, xii.

¹⁰ For a more detailed account, see Werner Oechslin, 'Gottfried Semper und die Archäologie in ihren neuerlichen Anfängen um 1830', in: Winfried Nerdinger and Werner Oechslin, eds., *Gottfried Semper 1803–1879: Architektur und Wissenschaft*, Munich: Prestel and Zurich: gta Verlag, 2003; Sonja Hildebrand, 'Vom klassizistischen "Abstraktionswesen" zurück "auf den natürlichen Weg des Sehens": Gottfried Sempers Hermeneutik antiker Farbigkeit', in: Martin Dönike, Jutta Müller-Tamm, Bénédict Savoy, Friedrich Steinle, eds., *Farben der Klassik* (= *Schriften des Zentrums für Klassikforschung*), Göttingen: Wallstein (forthcoming); cf. also Gnehm, *Stumme Poesie*, 57–69.

his historical research as follows: 'My aim is increasingly towards the intellectual life of antiquity in language, religion, art and literature – towards the nervous system of this organism, so to speak, rather than its musculature and the skeleton of outward facts, which we have far too much to do with in history.'¹² The 'extension of historical studies on all sides and in every direction, towards language, the life of states and of legal systems, art and philosophy' that was already becoming evident in Germany, Müller wrote, was the result (in comparison with France) of 'a warmer devotion to positive historical elements, a more lively view of these in every individual feature, and a penetration into the inner forces of life'.¹³ For Müller, total history requires direct, personal knowledge – 'Physical intimacy with the landscape, the arts and other material aspects he found to be indispensable for true historical understanding' – and also imaginative anticipation.¹⁴

Such a 'lively view' of history can be related to the concept of a 'living' architecture held by Franz Christian Gau, whose private architectural school in Paris Semper attended between 1826 and 1830. According to Gau's concept 'living' architecture was embedded in cultural and social practices and contributed to the shaping of them in both antiquity and the present age. Gau introduced Semper to the salon of Mme Valentin, which was also frequented by Alexander von Humboldt and by Gau's friend, Jakob Ignaz Hittorff. During these years, Hittorf was in the process of publishing his first studies on the ancient architecture of Sicily.¹⁵ Hittorf shared

Breslau: Josef Max, 1820, iv, the original German quoted in Gerrit Walther, 'Radikale Rezeption: Niebuhrs Römische Geschichte als Vorbild und Herausforderung für K. O. Müllers historisches Denken', in: William M. Calder III and Renate Schlesier, with contributions by Susanne Gödde, eds., *Zwischen Rationalismus und Romantik. Karl Otfried Müller und die antike Kultur*, Hildesheim: Weidmann, 1998, 430–1.

¹² 'Meine Richtung geht immer mehr auf das geistige Leben des Alterthums in Sprachbildung, Religion, Kunst und Litteratur, so zu sagen auf das Nervensystem dieses Organismus, nicht auf die Musculatur und den Knochenbund der äußern Fakta, womit man in der Geschichte nur zu viel zu schaffen hat.'; Karl Otfried Müller, letter to Christian Friedrich Elvers, Ohlau, 26 September 1833, the original German quoted in Walther, 'Radikale Rezeption', 439.
¹³ '[Die] Erweiterung der Geschichtswissenschaft nach allen Seiten und Richtungen, nach Sprache, Staats- und Rechtsleben, Kunst und Philosophie' was the result (in comparison with France) of a 'wärmere[n] Hingebung an das positiv Geschichtliche, eine[r] lebendigere[n] Auffassung desselben in allen einzelnen Zügen und ein[es] Hindurchdringen[s] zu den inneren Lebenskräften'; Karl Otfried Müller, review of B. Constant, *De la religion, considerée dans sa source, ses formes es ses développements,* vol. III (Paris 1827), *Göttingische Gelehrte Anzeigen,* 1831, the original German quoted in Josine H. Blok, '"Romantische Poesie, Naturphilosophie, Construktion der Geschichte": K. O. Müller's Understanding of History and Myth', in: Calder and Schlesier, *Rationalismus und Romantik,* 71.

¹⁵ Jakob Ignaz Hittorff, L'Architecture antique de la Sicile, ou Receuil des plus intéressants monuments d'architecture des villes et des lieux les plus remarquables de la Sicile ancienne, Paris,

¹⁴ Blok, 'Romantische Poesie', 62; on Müller's historical hermeneutics in its contemporary context, cf. Blok, 'Romantische Poesie', 69–73.

with Gau the opinion that the ancient temples had once been entirely coloured. They had responded through their rich play of colours to the luxuriant, sunny landscapes in which they were set. For Hittorf, the colourful splendour uniting nature and architecture provided the appropriate framework for the rituals and social ceremonies of the Greeks.¹⁶

An indication of what an approach of this kind might look like in Semper's own hermeneutic practice can be found in his reconstruction of the original colouring of the Temple of Theseus in Athens. In *The Four Elements of Architecture*, written in 1850 while he was in exile in England, Semper reports on the traces of ancient colouring he had noted during a study tour to Greece some twenty years earlier. He describes the 'very thin pieces of pale yellow or green marble panels and a transparent brown stone', which he interpreted as representing residues of the original cladding of the Erechtheum.¹⁷ He also discusses the necessity for conjecture resulting from the incompleteness of these findings. In connection with the Temple of Theseus, the most important subject of his research, he elucidates a process that assumes transcultural affinities:

Where the original colour of the underlay can still be found at many points it is more difficult to state precisely what the qualities of the colours applied were. I took the fine lines between the mosaic pieces of the foundation for gilding and allowed myself to be guided by the idea that an affinity existed between this wax dye enamel and the enamels familiar from Ancient Egypt.¹⁸

Semper concludes the section on the individual colour findings by commenting that he had set out in it the 'most essential elements' of what he could 'report from my own observations' about the polychromy used, 'admittedly without the benefit of my sketches and diaries'. These were the drawings he had been forced to leave behind a

¹⁸ Semper, 'Four Elements', 36.

^{1827–30;} Jakob Ignaz Hittorff, 'De l'architecture polychrôme chez les Grecs', *Annales de l'Institut de correspondance archéologique*, no. 2, 1830, 263–84; cf. Karl Hammer, *Jakob Ignaz Hittorff: Ein Pariser Baumeister* 1792–1867 (= *Pariser historische Studien* 6), Stuttgart: A. Hirsemann, 1968, 104–10.

¹⁶ Günter Oesterle, 'Gottfried Semper: Destruktion und Reaktualisierung des Klassizismus', in: Klaus Briegleb, Thomas Koebner and Sigrid Weigel, eds., *Nachmärz: Der Ursprung der ästhetischen Moderne in einer nachrevolutionären Konstellation,* Opladen: Westdeutscher Verlag, 1996, 91.

¹⁷ Gottfried Semper, 'The Four Elements of Architecture', in: Semper, *Four Elements*, 94 (original edition: Gottfried Semper, *Die vier Elemente der Baukunst: Ein Beitrag zur vergleichenden Baukunde*, Braunschweig: Vieweg, 1851; re-edition: Gottfried Semper, *Gesammelte Schriften*, vol. 1.1: *Wissenschaftliche Abhandlungen und Streitschriften*, introd. and ed. by Henrik Karge, Hildesheim, Zurich and New York: Olms-Weidmann 2014, pp. 259–368).

year earlier during his hurried flight from Dresden. In this interplay of recollected findings, conjecture based on cultural history, and artistic or poetic imagination, Semper then evokes the image of the antique temple. 'For us it was sufficient,' he writes, summing up the results of his research,

to become convinced (...) that the marble temples were not white of pale yellow, but were resplendent in a saturated profusion of color. The principal effect of their tone was similar to what is seen today, only more brilliant and at the same time lighter, because the crystal-white of the stone glimmered through the red vitreous coating, because alternating with the white was a blue that had a light tinge of green and that was moderated by the addition of black, and because of the golden film enveloped in whole in fine threads and highlighted the principal places.¹⁹

A similar combination of archaeological research and poetic imagination underlies the famous view of the Acropolis in Athens that Semper painted as an outcome of his journey to Greece in 1831-32. (Figure 1)



Figure 1 Gottfried Semper, *Reconstruction of the Acropolis in Athens*, around 1832 (watercolour, 18.6 x 34 cm, mounted on a paper of 26.9 x 41.1cm), gta Archives, ETH Zurich, Semper estate.

¹⁹ Semper, 'Four Elements', 94–5.

Picture credit: gta Archives, ETH Zurich, Semper estate, 20-215-2

Semper thus integrates artistic imagination and creativity into a scientific process of reconstruction, drawing on archaeology and cultural history. In so doing, however, he also strives towards the opposite of conjecture – namely, a precise empirical appraisal of the object itself in its location: firstly on his research trip through Italy and Greece in 1830–33, and later chiefly as a visitor to great collections such as those of the Louvre and the British Museum.

The hermeneutic method in the design process

For Semper, the work of archaeological reconstruction is not an end in itself. Investigation of the original colouring offered a 'key' to understanding the 'coherence of the whole', as he noted in one of his earliest texts, *Preliminary Remarks on Polychrome Architecture and Sculpture in Antiquity* in 1834.²⁰ But this coherence could only be grasped with reference to the underlying principles. An actual or even putative reconstruction of the whole was impossible, since in 'current ideas on the monuments of antiquity, there remains a gap that has blocked the way to an understanding of that relationship (...). It prevents us from forming an accurate mental image of antiquity in all its newness and in harmony with the conditions of its society and the southern landscape.'²¹

What was true for the reconstruction of the appearance of ancient temples also, and indeed foremost, applied to the design process oriented towards an unknown future: there is no complete set of fixed quantities. Architectural form, for instance, is a result of the interaction between an extended and basically endless series of variables. This is where Semper's definition of style in the form of a mathematical equation belongs.²²

Yet at the same time Semper made it his task 'to explore within individual cases the regularity and order that become apparent in artistic phenomena during the creative process of becoming and to deduce from that the general principles, the fundamentals of an empirical theory of art'.²³ If the attempt to create such an

²⁰ Gottfried Semper, 'Preliminary Remarks on Polychrome Architecture and Sculpture in Antiquity', in: Semper, *Four Elements*, 65 (original edition: *Vorläufige Bemerkungen über bemalte Architectur und Plastik bei den Alten*, Altona: Johann Friedrich Hammerich, 1834; re-edition: Gottfried Semper, *Gesammelte Schriften*, vol. 1.1: *Wissenschaftliche Abhandlungen und Streitschriften*, introd. and ed. by Henrik Karge, Hildesheim, Zurich and New York: Olms-Weidmann 2014, pp. 63–125).

²¹ Semper, 'Preliminary Remarks', 50.

 ²² Cf. Ute Poerschke, 'Architecture as a Mathematical Function: Reflections on Gottfried Semper', *Nexus Network Journal*, 14: 1, January 2012, 119–34.
 ²³ Semper, *Style*, 71.

empirical doctrine of art were successful, the architect as designer would be in a position to carry forward the history of architecture coherently.

Semper's most arresting explanation of the way in which one might begin to conceive of this continuation concerns the material transformation principle – famously explained in several texts, and in the greatest detail in *Style*. According to Semper, each material, primarily on account of its specific properties and the technique of treatment suitable for them, dictates a particular method of artistic representation. Semper calls the resulting visual appearance the artistic motive. If an artistic motive of this type is executed in another material, its appearance is modified by the new material and the different technique that is appropriate to it. Each execution of an older artistic motive in a new material, however, leads to further modifications that in turn leave their mark on the form of the art work as a kind of formal memory trace. Over the course of history, this has led to a high level of abstraction, which Semper links to the symbolic sphere: the 'principle of dressing and incrustation' that dominated the whole of pre-Hellenic art, he says, lives on in Greek art – albeit 'in highly spiritualized fashion, serving beauty and form alone, in a sense more structural-symbolic than structural-technical'.²⁴ Thus, according to Semper's argumentation, each design is a further potential sedimentary layer in the history of architecture's development and a further modification in an endless chain of evolutionary steps, each modifying an earlier state.

Semper regards these modifications as being dependent on a wide range of factors and hardly ever speaks of a creative, designing architect. However, in the first few paragraphs discussing the principle of dressing, there is a key point that propels the creative artist to the centre of the stage. This is the famous passage in which Semper declares the 'haze of carnival candles' to be the 'true atmosphere of art'. 'Every artistic creation', he writes, 'presumes a certain carnival spirit (...). The destruction of reality, of the material, is necessary if form is to emerge as a meaningful symbol, as an autonomous human creation.'²⁵

Design, like science, is thus characterized by coexistence and interplay. On the one hand, there is a need for insight into the parameters of form based on empirical research and the interpretation of its outcome, which is what Semper sets out to achieve with his theory of style. On the other, there is a creative overlaying and poetic sublimation of these parameters. Semper thus developed a concept of design as a process that takes place in an interplay between the historical heritage, the principles of style and the creative transformation of inherited forms into artistic symbols.

These three dimensions of the design process are the three parameters that Semper applied to evolution in art. They are paralleled in Semper's view of evolutionary biology and its use as a model for evolution in the arts.

²⁴ Semper, *Style*, 243.

²⁵ Semper, Style, 438–9.

Evolutionary biology and evolution in the arts

Semper made prominent references to evolutionary models in the course of his theoretical work. His self-imposed goal of becoming a 'future Cuvier in Artistical science' is well known.²⁶ Semper himself related this metaphor to his effort to define the principles of form by means of a comprehensive historical analysis – following Cuvier, who attempted to place the vast and constantly increasing quantity of specimens into a spatial and chronological order.²⁷ The way in which the differentiation of species took place – in an evolutionary and continuous fashion, or triggered by catastrophic events and thus spasmodically – does not initially appear to have played a decisive role in Semper's adaptation of phenomena from natural history. When he first phrased the key passage in this context in 1843 in a letter to his editor Eduard Vieweg, he interpreted Cuvier's classification of the animal kingdom in temporal terms, without classifying the type of evolutionary steps involved in any greater detail. In the ensuing years, Semper repeatedly used this passage as a key to introduce his historical theory of art. 'When I was a student in Paris,' he stated in a public lecture given at the Department of Practical Art in London in 1853,

I went often to the *Jardin des Plantes*, and I was always attracted, as it were by a magic force, from the sunny garden into those Rooms, where the fossil Remains of the animal tribes of the primaeval World stand in long series ranged together with the skeletons and shells of the present creation. In this magnificent collection, the work of Baron Cuvier, we perceive the types for all the most complicated forms of the animal empire, we see progressing nature, with all its variety and immense richness, most sparing and economical in its fundamental forms and Motives; we see the same skeleton repeating itself continually, but with innumerable varieties, modified by gradual developments of the Individuals and by the conditions of existence which they had to fulfil (...). If we observe this immense variety and richness of nature notwithstanding its simplicity may we not by Analogy assume, that it will be nearly the same with the creations of our hands, with the works of industrial art?²⁸

²⁶ 20-Ms. 55, fol. 3r (page 12), gta archives, ETH Zurich, Semper estate, cited after Gnehm, *Stumme Poesie*, 46.

²⁷ Cf. Andreas Hauser, 'Der "Cuvier der Kunstwissenschaft": Klassifizierungsprobleme in Gottfried Sempers "Vergleichender Baulehre", in: Thomas Bolt, ed, *Grenzbereiche der Architektur*, Basel, Berlin and Boston: Birkhäuser, 1985, 97–114.

²⁸ Gottfried Semper, 'London Lecture of November 11, 1853', ed. with a commentary by Harry Francis Mallgrave, *Res: Anthropology and Aesthetics*, no. 6, 1983, 8.

Semper establishes here a parallel between the gradual development of nature and its formal variety, on the one hand, and human production on the other. The comparison may raise the question of what the driving force behind these processes might be, and above all the question of what the driving force might be in the arts. Semper discusses this issue in detail in the last text published during his lifetime, *On Architectural Styles*.²⁹ He argues in it that art always reflects 'the prevailing social, political, and religious systems'.³⁰ 'Wherever a new cultural idea took root and as such became assimilated into the general consciousness, there it found architecture at its service to define the monumental expression of the idea.' 'Service' is a key term in this context, since in Semper's view, 'this new impulse emanated not from architects, but from the great reformers of society'.³¹ The question remains, however, of the way in which external factors act in detail on the process of becoming in art. Or – more specifically – of how the 'accord of an art object with its genesis, and with all the preconditions and circumstances of its becoming'³² is capable of being produced under the requirement that works of art must be 'creations of our hands'.

Cuvier's scientific work offered two possible starting-points here. The first is his argument that the function of organs determines their form, and in the end that the sum of the functions determines the form of the entire animal. This concept of 'form follows function' was fundamental to Cuvier's morphology and had been one of the arguments that led to his famous 1830 debate with Geoffroy Saint-Hilaire, a leading figure in the 'function follows form' school.³³ For Semper, as an artist, Cuvier's theory of function determining form must have been an interesting one. Cuvier's model was thus able to provide him with an argument, or a principle, capable of regulating the form-giving process. The second aspect is Cuvier's theory or 'principle of the correlation of parts'. On the basis of this principle and his 'form follows function' theory, Cuvier famously reconstructed entire animals – even when the only evidence for them consisted of a single bone. For Semper this miraculous resurrection of distinct animals may have served as a model for his artistic task of defining complex architectural forms by starting with single elements and working on them in accordance with certain scientifically approved principles.

Semper ultimately discussed the relationship between poetic creation and rational regulation in his text *On Architectural Styles*. He begins the essay by recalling Franz Kugler's critical review of his early report on ancient polychromy in 1834, which Semper described as being 'characteristic of the tone then prevalent among art

²⁹ See footnote 1.

³⁰ Semper, 'On Architectural Styles', 265.

³¹ Semper, 'On Architectural Styles', 269.

³² Semper, 'On Architectural Styles', 269.

³³ Cf. Peter Collins, *Changing Ideals in Modern Architecture* 1750–1950, London: Faber and Faber, 1971, 151 (1st ed., London: Faber and Faber, 1965).

critics toward artists'.³⁴ The passages from Kugler cited by Semper might indeed be read as confirming Semper's reproaches against Kugler who discusses the architect's 'very peculiar, cultural-historical and poetic interest'. Kugler continues: 'It is a pleasant experience to descend into those dark regions of world history guided by an artist full of imagination, and since the interpretation of hazy images from the past requires a good deal of personal fantasy, our own thinking receives a most valuable stimulus.'³⁵

Semper instead argues in favour of poetic imagination, yet opposes any 'private style inventors, who shine their cheap inventive spirit on every large and small residence, railway station, and everywhere'.³⁶ According to the classification in the 'Prolegomena' to *Style*, Semper similarly disapproves of architects who might belong to his category of 'historians': 'the so-called tourist architects, who bring home every autumn one new style from their excursions', and their scholarly counterparts, who can be found in the 'school of opinion according to which architectural styles cannot be invented at all, but evolve in different ways in conformance with the laws of natural selection, heredity, and adaptation from a few primitive types, rather similar to the way the species are presumed to evolve in the realm of organic creation'.³⁷

What follows is a key passage concerning Semper's understanding of human creativity that he ultimately saw in opposition to evolution in biology: 'This application of the famous axiom, "nature makes no leaps" and of Darwin's theory on the origin of species to the special world of the small re-creator – man – seems somewhat questionable to us, in view of what the study of monuments shows.' Semper goes on to emphasize that works of art also indicate decisions that are taken consciously, i.e. as a result of man's 'free will':

They are the free creations of man, on which he employed his understanding, observation of nature, genius, will, knowledge, and power. Therefore, the free will of the creative human spirit is the first and most important factor in the question of the origin of architectural styles, although, of course, man's creative power is confined by certain higher laws of tradition, demand, and necessity. Yet man appropriated

³⁶ Semper, 'On Architectural Styles', 267.

³⁷ Semper, 'On Architectural Styles', 267–8.

³⁴ Semper, 'On Architectural Styles', 265.

³⁵ Semper, 'On Architectural Styles', 265. (Original edition of Kugler's response: F[ranz] Kugler, 'Antike Polychromie', in: *Deutsches Kunstblatt* 15, 10 April 1852, 131: 'Es ist ein anziehendes Gefühl, an der Hand eines geistvollen Mannes in jene dunkeln Regionen der Weltgeschichte hinabzusteigen; mag die Ausdeutung der Nebelbilder auch ein gut Theil individueller Phantasie nöthig machen, so empfangen wir doch immer die schä[t]zbarsten Anregungen zu eigner Gedankenarbeit.')

these laws and made them subservient, as it were, to his free, objective interpretation and exploitation (*Verwertung*).³⁸

Michael Gnehm has shown the extent to which Semper's view that time has a spiral course can be regarded as consistent with Cuvier's catastrophe theory. The connection is established through the parallelism between revolutionary social changes and Cuvier's revolutions in the history of the Earth. Gnehm has also pointed out that the emphasis in Semper's theory during the 1850s shifts away from the view that artistic types emerge spasmodically and all of a sudden, towards one of continuities, survival and secondary usage of artistic features.³⁹ In Semper's 1869 text *On Architectural Styles*, these two aspects are combined. New ideas are implemented in a revolutionary way. Architecture's task is to process these ideas artistically. However, the artist has to study, interpret and carefully respect the parameters and principles of style rooted in history in order to avoid becoming a 'private style inventor'.

What distinguishes the designing artist from nature is his capacity – and in fact his duty – to create symbols. This enables him to work on the material and technical conditions of a form. The poetic contribution is the camouflage, the masking of the real conditions of the design, which springs from the artist's 'carnival spirit', making him the driving force behind evolution in architecture. In this way, Semper's 'creations of our hands' combines revolutionary and evolutionary aspects and links elements that have a historical, material, technological and functional basis to a poetic and artistic interpretation of them.

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³⁸ Semper, 'On Architectural Styles', 268.

³⁹ Michael Gnehm, "Kritik gegenwärtiger Zustände" als Ursprungskritik – zum dritten Band des Stil', in: Nerdinger and Oechslin, *Semper*, 318–9.

Concepts of creation: historiography and design in Gottfried Semper

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