Postgraduate Journal of Aesthetics, Vol. 4, No.3, December 2007

A Critical Assessment of the Role of the Imagination in Kant's Exposition of the Mathematical Sublime

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In this paper I will analyse the role of the imagination in Kant's discussion of the mathematical sublime. I will show that there are experiential possibilities within the mathematical sublime which far exceed the parameters envisaged by Kant. These possibilities will provide a useful contribution to contemporary debates concerning the sublime experience. I will begin with an elucidation of Kant's thesis; however, I will argue that there are deductive inconsistencies to be found in the text. I will argue that the failure of the imagination does not, as Kant argues, lie in the inability of the imagination to comprehend *infinity*,[1] but in the inability of reason to comprehend a *phenomenal totality*. Not only does this contrasting analysis address various problems in Kant's deduction, it also offers a more intuitive, clearer model of the mathematical sublime. I will then suggest a development of the analytic of the mathematical sublime which I offer for further consideration. Due to the constraints of length, I will not enter into a discussion of the validity of the sublime itself and will focus my analysis entirely on Kant's own analysis rather than that of secondary sources.[2]

1 Kant (1987), §26.

2 The arguments in section three are developed from the challenges posed by my own analysis in the previous sections. However, footnotes will indicate where this section is indebted to Crowther's *The Kantian Sublime* (1989).

I. EXPLICATION OF THE MATHEMATICAL SUBLIME

Kant argues in the *Critique of Judgment (CJ)* that there are two distinct modes of the sublime. This essay will concentrate on the mathematical mode. It is helpful to begin an examination of the mathematical sublime by elucidating the difference between logical estimation and aesthetic estimation; it is aesthetic estimation under strain, so Kant argues, that instigates the moment of the sublime. Logical estimation forms the cognitive basis of scientific calculations.[3] He argues that scientific enquiry only requires an understanding of the *logical relationship* of numbers and so does not require an *aesthetic experience* of those numbers.[4]

By contrast, in aesthetic estimation, one measures by sensible intuition rather than by a determinate logical calculation.[5] Technically speaking, the imagination fulfills two roles in the aesthetic estimation of magnitude: "the imagination must perform two acts: *apprehension* (*apprehensio),* and *comprehension* (*comprehensio aesthetica*)".[6] This is a very important point and marks a significant addition to the imagination's cognitive role *qua* determinate cognition. In order to appreciate fully the importance of this point we must briefly examine the role of the imagination in determinate cognition. By contrast, the significance of *comprehensio aesthetica*, as an additional role for the imagination, will become apparent.

In determinate cognition, the imagination apprehends, reproduces and synthesizes over time.[7] The manifold of intuition is conceived as unified when it is subsumed under a determinate concept.[8] When judging aesthetically that which is of average magnitude, or that which is merely large, the imagination is called upon, not only to apprehend the various sensuous intuitions of an object but also to *comprehend* these intuitions as a unified whole.[9] There is no objective determination in an aesthetic judgment and so no other faculty is providing a unitary cognition of the object. However, there must be a complete representational unity of the object if we are to perform any act of measurement. Transcendentally, therefore, the imagination is required to fulfill this comprehensive operation.

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3 Kant (1987), §26.
4 Kant (1987), §26.
5 Kant (1987), §26.
6 Kant (1987), §26. The use of the terms 'comprehension' or 'imaginative comprehension' will be a direct reference to *comphrensio aesthetica.*
7 Kant (1996), A102 – 2.
8 Kant (1996), A126 – 8.
9 Kant (1987), §26.

Furthermore, in the mathematical sublime, Kant argues that the object being judged is *absolutely large*. Its magnitude is such that it could never be made small by comparison to something else which is larger.[10] In the case of the absolutely large, the representation of the object is large beyond all comparison and therefore relies only on itself as a source of its aesthetic measure. Kant argues that the aesthetic measure itself is absolute as it is not a measure which requires comparison for completion; it is a necessary rather than contingent measure. As nothing in nature is large beyond all comparison then this absolute measure cannot be found in anything natural. This aesthetic estimation of the absolutely large must therefore refer to an absolute measure, the only absolute aesthetic measurement being infinity.[11] Therefore when faced with the absolutely large, the imaginative comprehension is compelled into estimating the magnitude of an object by infinity itself.[12] Yet one cannot generate an aesthetic comprehension of infinity; Kant argues that this striving of the imagination towards infinity, the attempt to comprehend by this absolute measure, marks the moment of the sublime.[13]

We have seen that the imagination is not compelled to measure such a representation by way of a basic measure but simply, yet with complete totality, comprehend the entirety of the object. Kant argues that, when faced with the absolutely large, the maximal limit of one's imaginative comprehension is soon reached.[14] Total comprehension of infinity is beyond imaginative comprehension and results in the cognitive failure of imagination. Kant begins by situating the sublime in this moment: the striving for the infinite by the imagination, although unsuccessful, nevertheless stretches the imagination. The sublime is here “a liking for the expansion of the imagination itself”.[15]

What I have detailed here is the technical role of the imagination in the Kantian mathematical sublime. It is imperative to properly follow Kant's own formulation because it is within the specifics of his understanding of aesthetic estimation, and the measure by which we make this estimation, that I will argue that there are interesting, unacknowledged possibilities for a sublime experience.

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[10] Kant (1987), §25.
[11] Kant (1987), §25.
[12] Kant (1987), §25.
[13] Kant (1987), §25.
[14] Kant (1987), §26.
[15] Kant (1987), §25.

II. REASON'S DEMAND FOR A TOTALITY OF COMPREHENSION

The preceding outlines the initial cognitive activity of the imagination. As our imagination engages with a seemingly infinite number of representations of a vast (absolutely large) object, it fails to cohere them in a unified whole. However, Kant argues there are further conditions required to complete a deductively sound and psychologically satisfactory account of the mathematical sublime. These conditions can be located through the following enquiry: If the imagination is failing, or seems likely to fail, why must it embark on a task which it will never achieve and only does violence to itself?

The answer to this concern is to be found in a discussion of the faculty of reason[16]. For Kant, it is reason that drives the imagination towards its limit, it is reason that supplies this 'absolute measure' and it is reason that *always requires* totality of comprehension.[17] Reason is indifferent to the plight of the imagination in its attempt to comprehend the absolutely large. It is, however, in the coercion of the imagination by reason, in its demand for totality, that the mathematical sublime is transcendentally completed. But in this move, Kant's treatment of the mathematical sublime grows in complexity considerably.

Reaching our aesthetic limit would, therefore, produce an emotion of displeasure. However, to suggest that this moment is sublime would appear to ground sublimity in the moment of imaginative failure. Kant inverts this stance, suggesting instead that the attempt by the imagination to comprehend the absolutely large actually stretches the comprehensive potential of the imagination. Therefore, the initial displeasure experienced in the failure of the imagination is then offset by the very striving of the imagination which can secure the positive moment of the sublime: "this liking [for the sublime] is by no means a liking for the object … but rather a liking for the expansion of the imagination itself."[18]

Having noted the essential role of reason in both driving the imagination towards its limits and also providing a logical basis upon which a liking for this limitation could be postulated, it is necessary to examine the ramifications for the role of reason in the sublime experience. Indeed, it is my contention that important

[16] All usage of the term 'reason' will be a reference to the Category of the 'Reason'; see Kant (1996), A299 – 310.
[17] Kant (1987), §26.
[18] Kant (1987), §25. It should be noted that there are ambiguities in the text here concerning the basis for the liking involved in the sublime experience.

ambiguities are introduced to Kant's analysis at this point. Furthermore, these ambiguities will be vital for developing the role of the imagination in sublime experiences and, in turn, for revealing other possible locations of such experiences.

Through §§25 and 26, Kant argues that the aesthetic measure is in fact a measurement according to the notion of infinity. In other words, the aesthetic measure is the measure of infinity. However, it is not clear that this move is essential. Kant argues for this conflation of concepts in the following movement: the absolutely large is not large by comparison but is large within and of itself. That is to say, this measure cannot come from nature, it must come from the subject's faculty of reason.[19] A schism in the argument occurs at this juncture: there is a maximal aesthetic measure which relates to that which is considered aesthetically to be absolutely large i.e., the object whose presentation appears vast to the point of being absolutely large.[20] Alternatively, the conceptual notion of the absolutely large, as it is large beyond comparison, is by implication infinitely large because only by this measure could its size be estimated as being beyond all comparison.

I am therefore suggesting that the concept 'absolutely large' is suspended between purely *aesthetic* - sensible - measurement and the *logical* demands of reason's idea of infinity. Yet, more intuitively, there is that which *appears* to be absolutely large. Imagination's maximal comprehension is reached in the attempted comprehension of that which appears to be absolutely large, yet the necessity of infinite imaginative comprehension is not necessarily invoked. The difference between these two conceptions of the absolutely large is as follows: that which is *logically* absolutely large and gives rise to the absolute measure [of infinity] and that which, by reaching the maximal measure of imaginative comprehension, is *phenomenally* absolutely large. Both conceptions satisfy the necessary condition for the mathematical sublime; in both cases there is a maximal limit. Kant writes:

> For when apprehension has reached the point where the partial presentations of sensible intuition that were first apprehended are already beginning to be extinguished in the imagination, as it proceeds to apprehend further ones, the imagination then loses as much on the one side as it gains in the other; and so there is a maximum in comprehension that it

19 Kant (1987), §25.
20 Kant (1987), (§26.

cannot exceed.[21]

This maximal limit is a necessary condition for the experiencing of the sublime as it instigates a failure of the imagination. Neither conception requires a comparative estimation - i.e., a determinative mathematical estimation - but are both constituted by *comprehensio aesthetica*. If this were so, I would ask why are we compelled to utilise the *logical* conception if the *phenomenal* will suffice? Even if an absolute aesthetic measure implies an infinite insofar as the maximal limit of aesthetic comprehension is reached, there is no logical necessity for the imagination to strive towards infinity and use infinity as the aesthetic measure of the absolutely large. What we are seeing here is the beginnings of a breakdown in the traditional conception of a sublime experience, one which is wedded to logical rather than phenomenal parameters.

The above analysis of the absolute measure also informs a distinction between that which is *logically* absolutely large and that which is *phenomenally* absolutely large. For Kant, reason's idea of infinity is that which is logically absolutely large.[22] However, even Kant's own examples suggest an absolutely large that could be derived from a phenomenal object.[23] It should be clear from the preceding analysis that that which is *logically* of absolute magnitude is infinite, and that which is *phenomenally* absolutely large, is vast beyond aesthetic comprehension.

In arguing against the necessity of a logical measure of the absolutely large, the emphasis of the mathematical sublime shifts towards the problem of the phenomena themselves and the challenges those phenomena present to the imagination. In short, there are a vast number of intuitions to be cohered in any object if it is to be comprehended in its totality. Rather than the imagination comprehending a measure of infinity, the challenge to the imagination becomes the aesthetic comprehension of any *phenomenal totality* in its entirety. That is to say, in comprehending those aspects of an object that are not accessible from a given viewpoint, an experience of the mathematically sublime may be occasioned.[24]

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[21] Kant (1987), §26 .
[22] Kant (1987), §26 .
[23] Kant (1987), §26 .
[24] See Crowther (1989), pp. 101-103.

III. For Further Discussion: A Mathematical Sublime of the Average Magnitude?

I have undermined Kant's argument that the absolutely large should be measured by the aesthetic measure of infinity. In light of this criticism I would ask, does the experience of the mathematical sublime still require vast objects? Within the framework of the aesthetic measure of infinity, Kant consistently argues for absolutely large or vast objects being the focus of experiences of sublimity. I will now draw this essay to a close by suggesting that, although vast objects do instigate the sublime, they do not do so exclusively. In fact a deduction of the mathematical sublime from average sized objects is also possible. In a paper of this length, I do not present this problem as decisive but instead I offer it for the further consideration of the reader and a possible avenue of further study concerning Kant's mathematical sublime. Nevertheless, if such a lacuna exists in Kant's analytic, as I argue it does, then there are significant ramifications for the teleology of Kant's third Critique regarding the concept of purposiveness.

Catalysing the sublime through a 'phenomenal totality' marks a significant point of departure from the mathematical sublime as conceived by Kant himself. Having attacked Kant's requirement for the absolutely large being measured by infinity, maximal imaginative comprehension in relation to phenomenal extremity supplants magnitude as the focal point for the mathematical sublime. The implications of this position are highlighted by the fact that it would seem to admit a mathematical sublime of the minute or the 'tiny'.[25] Undoubtedly Kant would be unhappy with such a movement but one must remember the experience of the sublime is marked by a complex feeling of displeasure in the failure of the imagination which is in turn recuperated by the pleasure taken in superiority of the law of reason. If this criterion is satisfied then the feeling, as an experience of the sublime, is arguably valid.

In light of this divergence, one must question the necessity of phenomenal extremity itself (i.e. the object being vast or minute) as a necessary condition for the sublime. For example, what are the implications for the mathematical sublime when considering the phenomenal totality of everyday, averagely-sized objects such as cars, houses, etc.?[26] It is my contention that such objects, when conceived as phenomenal

[25] Contrast Kant's dismissal of a sublime of the minute or 'tiny' (Kant (1987), §25.) with Crowther (1989), pp. 106-7.
[26] At this point my argument diverges from that of Crowther. See Crowther (1989), pp. 101–2.

totalities, present a potential problem for aesthetic comprehension.

Despite the fact that I have argued against the necessity of infinity being the absolute measure in aesthetic estimation, the integral role of reason and its demand for absolute comprehension still requires that the *entirety* of any phenomenal unity must be comprehended. The logical totality of reason's demand cannot be compromised or qualified if it is still to be reason's demand. As such, is it really simple to imagine, absolutely, the phenomenal totality of a house and even those aspects of the house unavailable to the perceiver due to location? One can certainly imaginatively comprehend a house and all its constituent parts with sufficient detail to determine it as a bounded totality. But this is not the same as comprehending, by the law of reason, the complete phenomenal totality of an object.

The specific facet of the mathematical sublime being brought into question here is the stipulation of boundlessness or formlessness in the object's appearance. The absolutely large object reaches the maximal aesthetic limit of the subject before sufficient aesthetic comprehension can be achieved, therefore the object appears boundless. In this sense, the absolutely large object is necessarily too large for aesthetic comprehension.

The thought that I wish to draw the reader's attention towards is the possibility of experiencing the mathematical sublime through a bounded object. It is certainly true that aesthetic comprehension of the small or the averagely-sized can be achieved without difficulty because, in Kantian terms, the subject can perceive a sufficient number of intuitions to synthesise a particular manifold which can then be subsumed under a determinate concept. In other words, the subject perceives sufficient intuitions of various parts of an object before the limits of her imagination are taxed. This is an unsurprising point, since without the possibility of this cognitive activity, everyday experience would be jeopardised. However, the sufficient intuitions of our everyday comprehension are not necessarily identical with the entirety of the phenomenal complexity of an object. It is my argument that, contrary to Kant's thesis, an attempt to imagine such complexity would induce an experience of the mathematical sublime.

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