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### *Mathematical Resonances in the Architecture of Goat Island's The Lastmaker*

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# Mathematical Resonances in the Architecture of Goat Island's *The Lastmaker*

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In his 'Manifesto of affirmationism' Alain Badiou claimed that:

The tautest and truest art of the 20th century has tried to show, as Alvaro de Campos says, that 'Newton's binomial is as beautiful as the Venus of Milo'. Which means: it has tried to grasp the real with the same impersonal rigor as that of mathematics. (2005)

What interests me in this proposition is the relationship between mathematics or what I shall call the 'mathematical aesthetic' in art and affirmation. The 'mathematical aesthetic' will be understood here 'as an underlying set of principles, or an *image* often manifested by an outward appearance or style of performance, where mathematics provides an especially succinct definition of the representational and structural impulse' (Woycicki 2012: 135). Thus the 'mathematical aesthetic' concerns aesthetic elements that are rooted in mathematical theory or derived from methodologies that are based on mathematical operations. This article will explore the ways in which the application of a 'mathematical aesthetic' to contemporary performance practice can be seen as affirmative. What is specific about the use of a 'mathematical aesthetic' as a strategy for affirmation in contemporary performance? What is so impersonal about the 'rigor of mathematics', as Badiou puts it, that makes it appropriate to grasp the 'real'? I will investigate this by looking at Goat Island's final piece, *The Lastmaker* (2007), which I saw at the Nuffield Theatre, Lancaster, UK.

Goat Island was a collaborative performance group based in Chicago working in the area of avant-garde theatre. Their core members included Matthew Goulish, Karen

Christopher, Lin Hixson, Mark Jeffery, Bryan Saner and Litó Walkey. Founded in 1987 they toured and developed work globally, most notably *Soldier, Child, Tortured Man* (1987), *We Got A Date* (1989), *Can't Take Johnny to the Funeral* (1991), *It's Shifting, Hank* (1993), *How Dear to Me the Hour When Daylight Dies* (1996), *The Sea & Poison* (1998), *It's an Earthquake in My Heart* (2001), *When Will the September Roses Bloom? Last Night was Only a Comedy* (2004) and *The Lastmaker* (2007). Their work was primarily movement based, focused on the development of performer-specific physical vocabularies and the incorporation of historical and contemporary texts in their performances. One of the reoccurring features in many of their pieces is the use of mathematics as a tool for structuring and devising performance material. This feature is particularly prominent in *The Lastmaker*, making it an appropriate case study for this enquiry.

In recent studies elaborating Goat Island's work such as Laura Cull's *Theatres of Immanence* (2013), Goat Island's approach to devising theatre and their methodologies for performance composition have been theorized as exemplifying Deleuzian notions of hybridity, variance, horizontality and the rhizome. What strikes me in their pieces, however, and in *The Lastmaker* in particular, is the elaborate 'mathematical aesthetic', which often precedes their performance as a compositional tool imposing a very rigid, finite structure, an enclosure or a trace that interplays and resonates with the more 'live', improvisational and rhizomatic qualities of their work. Indeed, meticulously calculated choreography, repetitive rhythmic patterns,

precisely timed speeches and the architectonic design of the Hagia Sophia all form part of the key compositional basis for *The Lastmaker*.

At the beginning of the piece the audience were told that they would witness a 'reconstruction' of the Hagia Sophia in Istanbul, a sixth-century cathedral that became a mosque and was finally converted into a museum. The audience are seated on two sides of a square stage space as the performance begins with what the company calls 'an architectural dance, in detailed triadic rounds. The performers diverge and re-converge, in accordance with hybrid mathematics, to a regular beat with irregular measures' (Goat Island 2009). The second half of the piece contains a series of re-enactments inspired by a variety of sources. In one of the acts Karen Christopher impersonates a routine by Lenny Bruce, a famous American stand-up comedian, social critic and satirist. In another instance Bryan Saner acts out Saint Francis' farewell instructions in the fashion of a stand-up comedy gig and Mark Jeffery sings a soulful pop song 'accompanying himself on the saw' (Goat Island 2009). Finally a poet and his apprentice discuss what is at stake in writing a farewell poem. The piece ends with the final minutes of J. S. Bach's *Art of the Fugue* (1751) followed by a nostalgic rendering of Peter, Paul and Mary's 'Puff the Magic Dragon' (1963). Even though the 'mathematical aesthetic' is not immediately apparent in most of these acts, they could be described as acts of 'referral' (Schmidt in Goat Island 2009: 23), as opposed to conventional impersonations. As I will later argue, these acts are often underpinned by abstract patterns, where the different elements of performance are structured and subjugated to a mathematical rigour.

Before analysing how the use of a 'mathematical aesthetic' in Goat Island's theatrical practice can be seen as affirmative, it is worthwhile to consider a 'common' definition of affirmation and briefly historicize the relationship between affirmation and mathematical aesthetics in art. This contextualization will provide a starting point

to think about how *The Lastmaker* can challenge us to reconsider the relationship between mathematics and affirmation.

The *Oxford English Dictionary* defines 'affirmation', in part, as: '1. the action of confirming something established', '2.b. a positive assertion of the truth of a fact, theory, etc.' and a process of giving '5.b. emotional support or encouragement' (*Oxford English Dictionary* 2013). Thus 'affirmation' can be broadly understood as referring to reinforcement of rules and laws; these can be cultural and social norms, aesthetic laws, etc. Affirmation can also be a support structure, which can reinforce a logical proposition or an emotive state. Of particular relevance to my analysis, affirmation can, following Claude Steele's influential psychological study, which linked the concept of self-affirmation with the notion of self-integrity, also refer to a means of achieving a psychological integrity of the self (Steele 1988). As it will be explained later, this notion of integrity can also translate into a representation of a coherent character in theatre, or what Gilles Deleuze would call a 'molar' entity (Deleuze in Cull 2013: 49). So, when thinking about affirmation in 'common' terms, it can be understood as a static concept concerning the reinforcement of (what can be termed) transcendental values.

Taking this notion of affirmation as a starting point let us now look at the historical relationship between affirmation and mathematical aesthetics in art. The use of numerology and algebra as means of structuring paintings, music and the use of geometry in architectural design pre-dates ancient times of classical Roman and Greek art. The Renaissance was a period in the history of Western culture where mathematics was extensively used as a form of structuring material. For instance, the golden section rule and the Fibonacci sequence were used in classical painting, music and architecture as compositional tools that helped artists to construct a sense of harmony and organicity within their work. The pleasures derived from perceiving these structures could amount to perceptions of beauty and sublimity

(later to be theorized by Immanuel Kant as the 'mathematical sublime' in 1790). These affirmative qualities were usually imbued with notions of positive psychological reinforcement. Hence representations in paintings with all of their socio-cultural contexts and meanings were supported and reinforced by a mathematical framework as were the social spaces in architecture with all their hierarchical and functional divisions. Perspectivism in Renaissance painting was also derived from mathematical studies. The concept was, as Maaïke Bleeker notes, first 'schematized by Albertus in 1435' (2004: 12) and then developed by many artists/scientists/mathematicians, most notably by the painter mathematician Piero della Francesca through his seminal work *De Prospectiva Pingendi (On Perspective for Painting, 1480)*. Perspectivist constructs led to the construction of a whole worldview in the Enlightenment period; Bleeker observes that 'far from being merely a technique of making images', the perspectivist approach was intricately interwoven 'with ideas, ideals, and ideology' (2004: 13). What is also worth noting about this period was that the 'mathematical aesthetic' remained 'hidden', concealed within the hierarchy of perception and acted as an affirmative reinforcement of other dimensions such as: representation, ideology and social and political organization of space, which were transmitted through works of art. An iconic example of this phenomenon is the hidden golden section squares that structure the figure of *Mona Lisa*, giving it an unusual sense of proportionality and thus supporting the interpretation that the painting engenders a representation of a universal subject.

During the avant-garde art movements in the twentieth century, to which Badiou refers in his manifesto, mathematics became a more explicit, prominent and foregrounded aesthetic, evident for example in the work of John Cage, Arnold Schoenberg, Mies van der Rohe, Le Corbusier, Piet Mondrian and Samuel Beckett, to name a few. In theatre, dance and performance art there was also an explicit interest in mathematical aesthetics as modes of organizing

material and structuring key aspects of devising and dramaturgical processes. This is typified by the work of John Cage and Merce Cunningham, Richard Foreman, Samuel Beckett, Robert Wilson, Michael Kirby and Goat Island among others. In many instances it could be said that the dramatic text of more traditional forms of theatre was replaced by a post-dramatic score, a score quite often organized with mathematical principles in mind.

The use of mathematical scores often had an effect of deconstructing ('destratifying') and dehierarchizing potential dramatic representation. These deconstructive processes became an important aspect for practitioners and companies such as Goat Island, exemplified in the *The Lastmaker*. These deconstructive and post-dramatic aesthetics are often 'accused' of being negative or, as Badiou puts it, of taking delight 'in the margins, in obliqueness, in infinite deconstruction, in the fragment, in the trembling exposition of mortality, in finitude, and the body' (2005). Through an application of Deleuzian philosophy concerning the polarity of transcendence and immanence, I will challenge Badiou's notion by suggesting that the use of a mathematical aesthetic in *The Lastmaker* deconstructs 'transcendent', 'top-down' modes of theatrical organization in order to open up to a perception of what Deleuze called a 'plane of immanence' (2001: 26). The 'plane of immanence' will be understood here as a 'de-stratified' space where presence and meaning can be re-constituted anew in what Laura Cull has referred to as the 'presence as becoming' (Cull 2008). I will argue that it is this deconstructive and, in turn, transformative quality of the 'mathematical aesthetic' that inspires a shift in perception away from representation and towards a perception of an affirmative 'process of becoming', one that is inherently creative. The use of Deleuzian philosophical concepts such as the 'plane of immanence' and the 'process of becoming' will also be a way to discuss and elaborate what Badiou refers to in his manifesto as the 'grasp of the real' and its potential for affirmation. Thus the aforementioned notion of 'affirmation' as

a support, a re-enforcement of cultural values and aesthetic qualities will be challenged by considering affirmation as an emergent, immanent process.

Let us consider the concept of immanence and what it means for theatre. From the etymological perspective, the Latin word *immanere* can be translated as 'to dwell within'. John Mullarkey elaborates the concept thus: "Existing or remaining within"; being "inherent"; being restricted entirely to some "inside"; existing and acting "within the physical world" (2006:7). It is useful to think, as Cull suggests in response to Mullarkey's conceptualization, that 'immanence might be formed on the basis of a contrast with the idea of transcendence, where the transcendent is that which "stands outside or above" the physical world' (2013:6). Thus transcendence and immanence form a dyad, a polarity. If we apply this dyad to a creative process of making a work of art we can begin to understand how different works of art fall on different sides of this polarity.

Cull suggests that for Deleuze, 'immanence and transcendence are distinct modes and different ways of understanding creativity and organization' (2013:25). A transcendent approach to the process of theatre-making can be understood as a 'top-down' process. It is an imposition of preconceived rules and ideas, or what Eugene Holland describes as 'modes and principles of ... organization', which are not part of the material that is being devised or created (Holland in Cull 2013:25, ellipsis in Cull), such as the imposition of a psychological construct on the process of creation of a character. Thus transcendence is a hylomorphic concept in that it rests, as John Protevi notes, on 'the doctrine that production is the result of an ... imposition of a transcendent form on a chaotic and/or passive matter' (2001:8). Immanence on the other hand can be described as an emergent, 'bottom-up' process. In Cull's words, there 'is no leader, director, author or transcendent idea that commands coordination and organization from without' (2013:25). The bodies and activities involved in the creative process

generate ideas and structures themselves; as a result the coordination between bodies on stage 'arises more spontaneously and in a manner immanent to the activity' (Holland 2006).

These two approaches of transcendence and immanence are inherent in every creative process. The use of a 'mathematical aesthetic' can engender this transcendence/immanence polarity as can the very concept of affirmation. In the short historical account I gave earlier, I implied that traditionally the use of 'mathematical aesthetics' to structure and organize artistic material was a transcendental process that affirmed transcendental values and constructs. In much modernist and postmodernist art the application of 'mathematical aesthetics' to the creative process is often external, such as the use of set theory by Arnold Schoenberg, the indeterminacy techniques by John Cage or vector dramaturgy by Samuel Beckett. In *The Lastmaker*, the primary function of the 'mathematical aesthetic' does not seem to lie in the affirmation of transcendental values. Instead it is a way of generating the unexpected and functions as an 'abstract' or 'pure' constraint as Badiou would put it, which enables and facilitates an immanent creative process. Thus I will argue that the use of the 'mathematical aesthetic' as a devising strategy in *The Lastmaker* generates what could be described as an immanent affirmation. For Deleuze the 'plane of immanence' is a conceptual space, a space for the invention of concepts where exploration, innovation and creativity can emerge as a process of difference. Elizabeth Grosz points out that 'Deleuze thinks difference primarily as force, as *affirmation*, as action, as precisely effectivity' (Grosz 2001:62). She argues that much of his philosophical project lies in the

affirmation of life and change, and an attempt to work around those forces of antiproduction that aim to restrict innovation and prevent change: to free lines, points, concepts, events, from structures and constraints that bind them to the same, to the one, to the self-identical. (p. 62)

Thus immanent affirmation will be seen here as a positive reinforcement of a creative process, which generates immanent structures, opens up possibilities for new perceptions and performative potentialities as opposed to reinforcing transcendental values and constructs.

#### RHYTHMIC PATTERNS AND REPETITIONS

One of the key scenes in *The Lastmaker* is comprised of a performative 'reconstruction' of the Hagia Sophia. This scene consists of a long sequence of coordinated and repetitive physical movements performed by all five members of the company on stage. Similarly to a piece of music, the movements, rhythms and gestures allude to and resonate with some notion or image of the Hagia Sophia. Each of the performers has a series of gestures that they perform in sequence and then repeat. At first these series seem to be the same and are performed in 'unison'. As the act progresses the movements go out of phase, almost as if each performer had a different metronome for their actions. Stravinsky's universal metronome comes to mind where each part of the orchestral score was subscribed to a different rhythmic division and the overall structure would coincide at a multiple of all denominators once every part had undergone enough repetitions. The sense of repetitions and multiplicity of action embedded in a discrete structure that is accentuated by a repetitive soundtrack is very distinct in this scene. After about 20 minutes the movement phases coincide again and the whole sequence ends on one final gesture. The performance is strongly mathematized in terms of how the movement is structured. The abstract logic of mathematics replaces the logic of representation. There is no hierarchy of the sign, with a privileged 'meaning carrier' being foregrounded. The audiences are not encouraged to engage in a 'top-down' analysis in order to discover the essence of what is being represented. Instead the performance is 'polyrhythmic', celebrating

and drawing attention to the different durations and multiple allusions to the Hagia Sophia created by the different performers. The mathematical aesthetic generates a multiplicity of perspectives and rhythms inviting the audience to focus on the specific and particular differences of the performer's actions. This is an invitation to a bottom-up, immanent perceptual process, an attempt to engage the audience with what Deleuze calls a 'plane of immanence' – a psychological space from which one can reconstitute a perception of a concept anew (in this case a performative concept of the Hagia Sophia), starting from the very process of its construction. One could simply view this as a post-dramatic deconstructive strategy, akin to the ones that Badiou criticized in his manifesto (2005). Yet this arguably constitutes a very particular process of affirmation. It is not an affirmation of preconceived images and constructs of the Hagia Sophia, but an attempt to invite the audience to reimagine the Hagia Sophia from 'within' one's performative process by refocusing their perceptions.

The use of a mathematical aesthetic as a means of generating repetition in scenes, such as the re-enactment of the last minute of J. S. Bach's *Art of the Fugue*, draws attention to the differential quality of performance and the presence as becoming. Again the scene comprises repetitive and choreographic patterns devised according to golden section rules inspired by Bach's work. What is interesting about this prolonged scene, which is somewhat exhausting to watch, is the way it affects spectators' perception of theatrical presence. According to Cull: 'Deleuze's concept of theatrical presence, as a non representational relation between audience and event, suggests one context in which we might apprehend ontological presence as becoming – the perpetual variation or difference-in-itself' (2009: 5). In this performance the 'mathematical aesthetic' is used as a device to draw attention to the 'presence as becoming', but also acts as a transcendental screen, which foregrounds the differential qualities of theatrical presence. In the spirit of Deleuze, Hans-Thies Lehmann

argues that 'even in the theatre, there is no such thing as true repetition. The very position in time of the repeated is different from the original. We always see something different in what we have seen before' (Lehmann 2006: 157). For Matthew Goulish 'Repetition is only repetition if we feel we own it' (2000: 33). Goulish distinguishes two types of viewers in relation to how repetition is perceived: the 'informed viewer' and the 'ecstatic viewer'. In this instance the 'informed viewer' will identify mathematical patterns as they emerge from the choreography because he or she will feel they own the mathematical concept behind them. The 'ecstatic viewer' will ignore the patterns and observe 'only the differences of steps that the informed viewer subsumes within the recognition of the same' (Cull 2013: 207). Thus repetition is only there if we chose to see it. In this sense one identifies repetition in performance when the differences between perceived discernible instances are deemed as insignificant. In other words, if we have a sequence of 'the same' gestures performed in succession one can choose to perceive the differences between these gestures as insignificant. If we apply this notion to the use of mathematical aesthetic in this scene then the mathematical patterns underlying the 'repetitions' of movements may render the whole sequence as a repetition of sameness. However, such a perception would be an imposition of an abstract structure on a living, perpetually changing presence. With time, however, the audiences will pick up nuances and witness a process of perpetual variation. The mathematical aesthetic functions as a transcendental contrast, a screen that makes the intricacies of the differential theatrical presence 'visible'. This is very visible in the final scene. The tape is stripped from the floor, the model is taken apart, performers are placed standing on wooden boards arranged asymmetrically in the space, their bodies liberated from a Cartesian grid. There is a change in lighting. Shadowy textures like a curtain of forest leaves are cast on the walls of the theatre and a polystyrene cloud floats in

front of the cast carried by Bryan Saner as Saint Francis. Again this moves away from the notion of affirming a representation or an aesthetic stasis. Instead it exemplifies an affirmation of the process of 'becoming' by means of celebrating theatrical presence in its differential and perpetually changing nature.

#### MATHEMATIZATION OF SPEECH

The second part of *The Lastmaker* is filled with energetic solo performances. One of the scenes exemplifies an interesting approach to the structuring of speech through mathematical patterns, namely Karen Christopher's performance of Lenny Bruce's last routine. Christopher notes that: 'When I play a character I play a series of gestures and sounds. I repeat certain positions and rhythms. I am not trying to repeat the person, only their motion and sound' (Christopher in Bottoms and Goulish 2007: 84). Mathematics is used here as a 'creative constraint' for the rhythmic structuring of speech. Other methodologies include the imposition of mathematical structures like the Fibonacci sequence on text and rhythms, the use of palindromes and applications of geometrical concepts such as symmetry for textual structuring or the use of 'S+7 method' in which every noun in a given text is replaced by a noun seven places ahead in the dictionary (Cull 2013: 46). The use of a mathematical aesthetic can be seen here as a way of 'deorganizing' and liberating the voice from 'conventional' dramatic and communicative functions allowing for the potential of a new immanent perspective. This allows for a rethinking of language through an 'immanent', bottom-up process as opposed to the top-down process. This deorganization of speech does not emphasize the need to figure out an expected interpretation, an interpretation relying on identification with a transcendental model of identity representation, such as a naturalistic psychological representation. Thus Christopher's performance becomes, as Theron Schmidt suggests, one of 'referral, not

imitation; she borrows Bruce's rhythm, and some of his flinches, but she can only wonder what it would be like to have his fingers, his face' (Schmidt in Goat Island 2009: 23). Her performance was not, then, an attempt to create a holistic representation of Bruce. Instead Christopher reconstitutes his performance through references to gestures, rhythms and patterns of movement. This notion of referral and moving away from representation becomes ironically significant if we consider the content of Bruce's final routine:

I do my act at 11 o'clock at night, 11 am the next morning there is another guy doing my act before the grand jury who introduces himself as Lenny Bruce in substance. A police officer who is not trained in make-belief performances does the act. The grand jury watches him and goes: 'That stinks'. But I get busted and the irony is that I have to go to court and defend his act, because it concerns the complaint against me. (Bruce 2005)

This is a telling joke since it strikes at the heart of the matter I have been discussing, which is the power of representation. Institutions have the power to hold performances and representations accountable to law, social norms, value judgements, etc. The one who has the power to represent – the police officer in this case – also has the power to affirm their worldviews and laws. The credibility of those representations is contingent on performative conventions. By mathematizing this speech, Christopher relinquishes this power, the ownership and the control over how another person (Lenny Bruce) should be represented. She does not side with the speech, nor does she affirm Bruce or any of his potential intent. Instead her treatment *deterritorializes* the speech by displacing any transcendental realist convention of imitation by an abstract mathematical aesthetic. This opens up the possibility of perceiving the speech and the construction of identity anew. The original speech inspires a reaction of sarcastic laughter, affirming the need to ridicule censorship. It is essentially a top-down judgement of censorship in America and thus an affirmation of a liberal political stance. However, the affirmative aspect

of Christopher's rendering lies elsewhere. It lies in the creative and ethical freedom of relinquishing that need for judgement, and inviting a shift in the audience's perception to one of immanence, where new identities and worldviews can be explored and affirmed.

#### SCALING AND MINIATURIZATION

Another mathematical feature of the piece is its use of a miniature model of the Hagia Sophia. This detailed and accurate model of the Hagia, standing a metre tall, was built by Mark Jeffery. The rendering was very accurate and a lot of emphasis was put on the notion of scale and rescaling. In the piece, the model was used as a prop, centrally placed on stage in one of the choreographic sequences. So what effect does this rescaling have in the context of this discussion? If we consider the traditional role of mathematics in Western architectural design, then, historically, this role in Western culture was one of imposing spatial perspectives and organizing socio-political spaces. Thus traditionally, since the Renaissance, the use of architecture in theatre was designed to organize theatrical elements into a meaningful frame, usually a perspectivist one. Much scenography in mainstream theatre is still designed according to those principles. It is thus a way of affirming worldviews and ideologies through a sense of perspectivist structure. By rescaling the Hagia Sophia as a miniature, *The Lastmaker* opens up a space for imagination.

Gaston Bachelard argues in his exploration of miniatures in *The Poetics of Space* (1958) that 'a geometrician sees *exactly the same thing* in two similar figures, drawn to different scales' (p. 145). However, if one considers an internal perspective, in other words as soon as the spectator is allowed to 'enter' the world of a miniature, geometric affinities and scaling no longer prevail, and a world of imagination is conveyed by the miniature. In this miniature world, 'Large issues from small, not through the logical law of a dialectics of contraries, but thanks to liberation from all obligations of dimensions, a liberation that is a special



characteristic of the imagination' (Bachelard 1958: 155). Through performative engagement with the model in *The Lastmaker*, the performers invite the audience to abandon a 'top-down' perspective and perceive the Hagia Sophia from within, from an inner, 'immanent' place. The spectator's perception is not positioned within a fixed structure of an architectural construct but rather placed on the *outside*. Architecture is no longer represented as a finished product but a 'process of becoming', a fresh rewriting of the cultural meanings of the Hagia Sophia. As Brian Massumi has argued in *The Politics of Everyday Fear*, 'boundaries are only produced in the process of passage: boundaries do not so much define the routes of passage; it is movement that defines and constitutes boundaries' (Massumi in Grosz 2001: 65). Where traditionally mathematics was used to position the subject within architectural space and serve as a tool for defining spatio-social coordinates, inviting a predetermined perspectivist mode of perception, the rescaling of the model and the movement-based performance around it engender notions of fluidity and permeability, opening up a space of potentiality. The *outside* of the architectural structure is not separated from its *inside*, engulfing the *inside* like a fixed shell, but rather the inside points towards the outside, where the outside becomes a space of potentiality, of the un-fixed, the unknown. Similar to the previous examples, this rescaling does not seek to affirm a static interpretation of the Hagia Sophia that in itself has a complex hybrid identity. Instead it invites us to abandon such a perspective offering an affirmation of an immanent view, a view from within, enabling the audience to see and experience the Hagia Sophia anew, where the act of perception becomes in itself an immanent process.

I have argued that the mathematical aesthetic in *The Lastmaker* enables a different kind of affirmation. Not a top-down, transcendental 'affirmation' but a bottom-up, 'immanent' kind. Arguably both coexist within the piece but the strategies adopted by Goat Island encourage a shift towards the immanent side of the polarity. Mathematics in Goat Island's

*The Lastmaker* does not reaffirm a concept of eternal beauty such as that Badiou craves for in the opening quote to this article, but rather is a constituent part of a strategy to reach out towards a 'plane of immanence' and a 'presence of becoming'.

To conclude I will discuss what is specific about the 'rigour' of a mathematical aesthetic as a strategy for this immanent affirmationism. I suggested earlier that mathematics has a transcendental ontology just like the ontologies of representational sign-systems that are being deconstructed. So isn't this the case of replacing one transcendental concept with another? What makes mathematics special in this matter? Firstly, mathematics can be seen as a non-intentional sign-system. In this context an intentional sign-system would refer to propositional languages, such as a dramatic text, that despite their arbitrary nature are 'logocentric'. The term 'logocentric' means here that signs are centred around culturally agreed meanings that have a certain degree of specificity. Non-intentional sign-systems such as mathematics are far more abstract and decentred. Thus mathematical structuring becomes a way of displacing material from linguistic sense-making frames. Secondly, since mathematical systems often impose and create order, the mathematical aesthetic can become a transcendental screen, a way of foregrounding the 'chaos', or the ever changing, differential theatrical presence, of 'performance excess'. Thirdly, mathematical formulae can be used as devices, providing techniques and methodologies for generating structures that can stimulate a creative process.

However, mathematics does not lie outside culture. The fact that mathematical aesthetics in contemporary art, such as the example of Goat Island's *The Lastmaker*, can be used as an opportunity for a new beginning, an immanent cultural restructuring, is also symptomatic of a certain ironic vicious circle. Even though mathematics as a methodological approach to performance may be effective at dismantling discourses of power, ownership dynamics and 'destratifying' Western constructs of

subjectivity and ‘molar’ identity, it still lies at the basis of metaphysical thought. Thus by addressing mathematics, *The Lastmaker* exposes the very foundations of Western culture and its traditions. And perhaps ironically, like a theatrical machine, a *perpetuum mobile*, it attempts to remake what came last, only to return to in the end and reaffirm the very foundations of transcendental thought, which produced the outcome in the first place.

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