

Scientific Report of the ATACD research activities - University of Utrecht, NL, 1 April - 13 April- by Silvana Carotenuto

“The ‘Undecidable’ and the ‘Virtual’: Postcolonial Manifolds”

During the two weeks of intense bibliographical research, I have identified the critical material that covers the first and second questions proposed in the abstract of my research: the inquiry into the language of the interdisciplinary encounter between critical thought and mathematics, and the fictional bridge between topology and postcoloniality.

After the study of the audiovisual reports of the range of possible use of topology (published on the research site)¹, also supported by the culturalist urge expressed by my academic host, Prof. Braidotti, to place the emphasis on the ‘political’ nature of the debate², my attention concentrated on the two politics of thought that have met science – topology, in particular - in their philosophical readings of contemporary cultural dynamics: the practice of Deconstruction by Jacques Derrida, and the philosophy of Gilles Deleuze³.

Jacques Derrida and Kurt Godel⁴: the undecidable, difference. Since its original introduction – if one considers *Edmund Husserl's Origin of Geometry. An Introduction* by Jacques Derrida⁵ – up to

¹ Cfr. “Topology of culture: metaphors and tools” - 29-30 November. Organizer: Professor Richard Rogers, Department of Media Studies, University of Amsterdam, Amsterdam: Celia Lury (‘forms as process’ - Whitehead), Andreas Roepstorff, Joseph Perello (art and science), Fabian Muniesa, V2, Tiziana Terranova (scale free network, ‘immaterial’ topology), Martin Fuglsang, Emilio Lague (environmental sociology), Steven Brown (‘modelling the gap’) Rosi Braidotti (subjectivities and ‘bare life’, as in Agamben).

² See also “Political Topology”- Theory Kit, (<http://www.kit.ntnu.no>), in particular, the article “ The Adventures of French Philosophy” by Alan Badiou, in his account of ‘the adventures of the concept’ in the development of continental philosophy. As it will become clear, the adventures of two concepts which interest my critical approach are related to the ‘undecidable’ and to the ‘virtual’, stressed also by Brent M. Blackwell, “Cultural Topology: an Introduction to Postmodern Mathematics”, <http://reconstruction.eserver.org/044/blackwell.htm>

³ “What Becomes of Science in ‘the Future of Phenomenology” by Bernard Freydberg, www.springerlink.com/index/EWK94VXA255U4QLA.pdf.

⁴ Gabriele Lolli, *Sotto il segno di Godel*, Il Mulino, 2007. See, for the Italian interest in the debate, the recent publication of Pavel A. Florenskij, *Il simbolo e la forma. Scritti di filosofia della scienza*, Bollati 2008.

⁵ Translated, with a preface and afterword by John P. Leavey, Jr. Lincoln and London, University of Nebraska Press, 1989.

its more recent development traced in *Ecography of Television*⁶, Deconstruction has often questioned Western thought via geometry and the notion of 'tele', producing its own undecidable vision, its topological notions of *differance*.⁷ Deleuze/algebra: "from the actual to the virtual". If Deconstruction interrogates philosophy by means of geometry, Deleuze writes his answer to *What is Philosophy?* thanks to his concept of technoscience, the virtual⁸.

The 'undecidable' and the 'virtual': these are the two topological areas where the politics of deconstruction and the Deleuzian becoming can differ but also converge⁹. A specific point of convergence is the critical attention that two scholars, operating respectively in the field of deconstruction and science, and in the translation of the philosophy of Deleuze into architecture – Arkady Plotnisky¹⁰ and Brian Massumi¹¹ - have devoted to the interpretation of the 'manifolds':

⁶J. Derrida - Bernard Stiegler, *Echographies de la television*, Edition Galilée, Istitut national de l'audiovisuel, 1996. See "Rethinking the Political: Derrida and Nancy on Network, Citizenship, and Teletechnologies" by Philip Armstrong, Chwp c.5, January 2007.

⁷ Brian Massumi remarks, in parenthesis, that we should refer to the very notion of 'differance', while reading the relationship between Godel and Derrida: "On the human level, it is that same undecidability fed forward into thought, as evinced in the deconstructability of every structure of ideas (as expressed, for example in Godel's incompleteness theorem and in Derrida's differance)". In *Parables for the Virtual, Movement, Affect, Sensation*, Duke University Press, 2002, p. 37. See also the work of the Italian physicist Piergiorgio Odifreddi, in his interview to Jacques Derrida, and "Deconstruzione e pensiero scientifico" by Manlio Iofrida, *Parol on-line*, ottobre 1998.

⁸ See Alberto Toscano, "The coloured thickness of a problem", his preface to Eric Alliez, *The Signature of the World: or, What is Deleuze and Guattari's philosophy?*, translated by Eliot Ross Albert and Alberto Toscano (the 'empty time of the event'), and the work by Manuel de Landa, *Intensive Science and Virtual Philosophy* (see the six videos on 'Deleuze and Topology', etube). See Ctheory interview with Manuel de Landa, www.ctheory.net. The 'virtuality' of Deleuze's philosophy is providing the arena of creative experimentations in visual arts (the link with visual culture can be traced back in *Crossing Over* by Jay Gould and Rosamand Purcell, Three Rivers Press, New York, 2000), in feminist science (see the recent *Science from Below: Feminisms, Postcolonialities and Modernities*, by Sandra Harding April 2008), in the work of Bruno Latour.

⁹ See "Deleuze/Derrida_ towards an almost imperceptible difference" by Kir Kuiken, University of California, Irvine.

¹⁰ See his "Algebras, Geometries, Topologies of Philosophy: Deleuze, Derrida, & Mathematical Knowledge" - (audio download) ,www.slought.org/content/11056, See *Non-Euclidean Philosophy: Lacan, Deleuze, Derrida, and Modern Mathematics* (expected completion 2006); "Light Ghosts of Jacques Derrida," *The European Legacy* (2006); "Chaosmologies: Chaos and Thought in Gilles Deleuze and Félix Guattari's *What is Philosophy*, with Quantum Field Theory," *Paragraph* (2006); "The Unthinkable: Nonclassical Theory, the Unconscious Mind, and the Quantum Brain," in *At the Boundary between Science, Philosophy, Language, and Arts*, eds. Gordon Globus, Karl Pribram and Giuseppe Vitiello, Amsterdam: Benjamin, 2004; "Algebras, Geometries, and Topologies of the Fold: Deleuze, Derrida, and Quasi-Mathematical Thinking, with Leibniz and Mallarmé," in *Between Deleuze and Derrida*, eds. Paul Patton and John Protevi, New York: Continuum, 2003; "Complementarity, Idealization, and the Limits of the Classical Conceptions of Reality," in *Mathematics, Science and Postclassical Theory*, eds. Barbara H. Smith and Arkady Plotnitsky, Durham, NC.: Duke University Press, 1997; previously published in *SAQ (South Atlantic Quarterly)* (Spring 1995); reprinted in *Jacques Derrida*, eds. David Roden and Christopher Norris, London: Sage, 2002; "Topo-philosophies: Plato's Diagonals, Hegel's Spirals and Irigaray's Multifolds," in *Histories of Theory*, eds. Tilottama Rajan and Michael O'Driscoll, Toronto: University of Toronto Press, 2002; *The Knowable and the Unknowable: Modern Science, Nonclassical Thought, and the "Two Cultures,"* Ann Arbor, MI: University of Michigan Press, 2002; "On Derrida and Relativity: A Reply to Richard Crew," *Postmodern Culture* (January 1998): *Mathematics, Science, and Post-Classical Theory*, co-edited with Barbara

Arkady Plotnisky, "Manifolds: On the Concept of Space in Riemann and Deleuze," in *Virtual Mathematics*, ed. Simon Duffy, Manchester, UK: Clinamen Press, 2005;

Brian Massumi, "The Architectural Manifolds" (written interview), *Manifold Magazine* (Rice University- forthcoming).

The notion of 'manifolds' is one of the main interests of my proposed research. The bibliographical search has also identified two articles that might create the critical link with postcoloniality:

Paivi Kymalainen, "Topologies of Becoming", *Space and Culture*, vol.6, n.3, 2003;

Kwame A. Appiah, "Out of Africa: Topologies of Nativism", *The Yale Journal of Criticism*, 2.1, (1988)

In my research, I would like to see the consistency of 'undefinable and virtual manifolds' in what is defined as 'postcolonial aesthetics'¹². Here the 'undecidable' and the 'virtual' can be read as "The Performative and the Processual: A Study of Hypertext/Postcolonial Aesthetic" by Jaishree K. Odin (an article that reads, in particular, the hypertextual strategies operating in Shelley Jackson and Leslie Silko). In my area of interest the aesthetics is constituted by literature¹³. By considering the critical indications given by Derrida in *The University without conditions*, and also what Deleuze writes on 'minor literature', and the 'border subjects', I would like to follow the dynamics of literature in the area of postcolonial writing.

If literature becomes essential for mathematics (see the very recent fiction by the physicist Janna Levin, *A Madman Dreams of Turing machines. A novel*, Weidenfeld & Nicolson, London, 2008), it can also be important to see the position of topology in the area of postcolonial fiction, and, in particular, in the postcolonial space provided by the topological fiction by Jamaica Kincaid (which is the third section of my proposed research).

Herrnstein Smith, Durham, NC: Duke University Press, 1997; "Introduction: Networks and Symmetries, Decidable and Undecidable," with Barbara Herrnstein Smith, in *Mathematics, Science and Postclassical Theory*, eds. Barbara H. Smith and Arkady Plotnitsky, Durham, NC: Duke University Press, 1997, previously published in *SAQ* (South Atlantic Quarterly) (Spring 1995); "But It Is Above All Not True": Derrida, Relativity and the 'Science Wars,'" *Postmodern Culture* (January 1997); *Complementarity: Anti-Epistemology After Bohr and Derrida*, Durham, NC: Duke University Press, 1994.

¹¹ See his *Parable of the Invisible* (in particular, the chapter 'Strange Horizon: Buildings, Biograms, and the Body Topologic'),

¹² See the issue of *Social Studies of Science* devoted to "Memory and Matter. Postcolonial Technoscience", by Warwick Anderson (Ucsf/Berkeley)- <http://sts.nthu.edu.tw>

¹³ Cfr. Jari Kauppinen, "Law without Place: Topology and Decision. Questions of line and Literature", *Law and Critique*, ix/2 (1998).

