

From lines as geometrical form to lines as meshwork rather than network

Vinzent, Jutta; Ingold, Tim

DOI:

[10.1515/9783110467963-002](https://doi.org/10.1515/9783110467963-002)

License:

None: All rights reserved

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Vinzent, J & Ingold, T 2017, From lines as geometrical form to lines as meshwork rather than network. in S Dorsch & J Vinzent (eds), SpatioTemporalities on the Line: Representations – Practices – Dynamics. 1st edn, SpatioTemporality: Practices - Concepts - Media / RaumZeitlichkeit: Praktiken - Konzepte - Medien, vol. 3, De Gruyter, Berlin, pp. 13-20. <https://doi.org/10.1515/9783110467963-002>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Sebastian Dorsch, Jutta Vinzent (Eds.)
SpatioTemporalities on the Line

SpatioTemporality / RaumZeitlichkeit

Practices – Concepts – Media /
Praktiken – Konzepte – Medien

Edited by / Herausgegeben von
Sebastian Dorsch, Bärbel Frischmann, Holt Meyer,
Susanne Rau, Sabine Schmolinsky,
Katharina Waldner

Editorial Board

Jean-Marc Besse (Centre national de la recherche scientifique de Paris),
Fraya Frehse (Universidade de São Paulo), Harry Maier (Vancouver School of
Theology), Elisabeth Millán (De-Paul University, Chicago), Simona Slanicka
(Universität Bern), Jutta Vinzent (University of Birmingham), Guillermo Zermeño
(Colegio de México)

Volume / Band 3

SpatioTemporalities on the Line



Representations – Practices – Dynamics

Edited by
Sebastian Dorsch and Jutta Vinzent

DE GRUYTER
OLDENBOURG

Printed with the Financial Support of Erfurter RaumZeit-Gruppe (ERZ) / Erfurt SpatioTemporal Studies Group, University of Erfurt, Germany

ISBN 978-3-11-045551-9

e-ISBN (PDF) 978-3-11-046796-3

e-ISBN (EPUB) 978-3-11-046578-5

ISSN 2365-3221

Library of Congress Cataloging-in-Publication Data

A CIP catalog record for this book has been applied for at the Library of Congress.

Bibliografische Information der Deutschen Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available on the internet at <http://dnb.dnb.de>.

© 2017 Walter de Gruyter GmbH, Berlin/Boston

Cover Image: Installation Photograph of Gego, *Reticulárea*, 1969. Stainless steel wire and aluminum tube. Variable measurements, Collection: Fundación de Museos Nacionales, Caracas, Venezuela, Photo: Paolo Gasparini. Copyright: Fundación Gego.

Typesetting: Dr Rainer Ostermann, München

Printing and binding: CPI books GmbH, Leck

☺ Printed on acid-free paper

Printed in Germany

www.degruyter.com

Contents

Setting the Scene

Sebastian Dorsch

SpatioTemporalities on the line

Interdisciplinary perspectives for a cartography of lines — 3

Jutta Vinzent in conversation with Tim Ingold

From lines as geometrical form to lines as meshwork rather than network — 13

Lines, Linearities and Folds

Angelika Seppi

A line is not a line is not a line

From the capital line of metaphysics to a future ontology of the fold — 23

Jochen Brüning

Linie, Fläche, Raum – und Falte. Reflexionen eines Mathematikers.

Line, surface, space – and fold. Reflections of a mathematician — 43

Lines in Landscape and Society

Anna-Katharina Rieger

Lines in the landscape

Water distribution and socio-religious landscape in ancient southern Syria — 65

Samantha Schramm

Travelling along and away from the line

Sites and traces in Land Art — 96

Lines, Forces and Modernities

Barbara von Orelli-Messerli

The line as force

Henry van de Velde's scientific approach to artistic problems — 119

Kathrin Fehringer

Line, thread, and modern storytelling — 141

Timelines and Narratives

Harry O. Maier

The awful lines of Eusebius of Caesarea — 169

Holger Berg

Lines in “the stream of time” (Tidens Strøm)

A comparison of three chronological charts from nineteenth-century Denmark — **186**

Interdisciplinary literature on lines — 226

About the authors — 245

Jutta Vinzent in conversation with Tim Ingold

From lines as geometrical form to lines as meshwork rather than network

This dialogue takes its starting point from a workshop entitled *Lines. Spatio-Temporal Perspectives* convened together with Sebastian Dorsch (Erfurt) on the nature of lines on 18 and 19 June 2015. In order to have a focus, all participants prepared by reading three texts, namely Thomas Wulffen's 'Der gerissene Faden', Martin Stingelin's 'Das Netzwerk von Gilles Deleuze oder Der nichtlineare Begriff des Begriffs' both published in Thomas Wulffen (ed.), *Der gerissene Faden. Kunstforum International* 155 (2001), and Tim Ingold's *Lines: A Brief History*, published in 2007. Of these, it was Ingold's text that attracted most discussion. In the introduction of the texts in a first session of the workshop, some argued that one cannot escape linearity, while others emphasised that the workshop was about critiquing the straight line. The question as to whether lines depend on representation, visual or mental, so that the thinking of lines as such would actually mean critiquing representation, is a substantial one that was developed further over the two days. Indeed, the workshop was concerned with inquiries into producing lines, drawing lines and also deconstructing lines. What remained were questions about the phenomenology and representation of lines. Can lines be represented and if so how? Does a line actually exist or is it not, if it is to be recognisable, an area? In cartography, the more one zooms into a map, the more a line becomes visible as an area. Do lines, therefore, only exist mentally? What are lines and how do these relate to associated terms such as straight line, trace/track and ray?

With these questions in mind, I approached Professor Tim Ingold who was kind enough to agree to discuss these issues further, out of which the following email dialogue was created:¹

JV: Dear Tim Ingold, Last year, we organised a workshop on lines for which all participants read parts of your book *Lines. A Brief History* (2007) to give a focus to the workshop papers.² This book proved to be very useful, both for our discussions at the workshop and for the conveners of the event. A review of this workshop, which I wrote for the forthcoming annual year report of the Max Weber

¹ For the following text, the emails have been slightly revised and referenced for the reader.

² See Tim Ingold. *Lines. A Brief History*. London: Routledge, 2007.

Centre (Erfurt), is attached.³ Sebastian and I have now put together a proposal for an edited volume with contributions by selected speakers to be published in the series *SpatioTemporality. Practices – Concepts – Media*, and we would be very grateful if you were able to contribute. Alternatively, if you feel that this does not suit you, we would welcome any comments on the book proposal. Jutta Vinzent

TI: Dear Jutta, Many thanks for your mail. I was pleased to read about your workshop on lines at Erfurt, and wish you success with your projected volume. It is kind of you to ask me to contribute to it. I would like to accept, but this would have to be on condition that whatever I write would be short [...].

By the way, I would take friendly issue with one of the statements in your proposal – that ‘strictly speaking there are no lines, but only surfaces’. You could just as well put this around, and argue that ‘there are no surfaces, but only lines’. The argument of Chapter 2 of my book *Lines. A Brief History* is precisely that you can go either way. On the common assertion that there are no lines in nature, see the attached!⁴ All the best, Tim

JV: Dear Tim, Thank you so much for your response – we are thrilled about this! [...]. Also many thanks for your very useful comments about the nature of lines vis-à-vis surfaces. I will re-read Chapter 2 of your book *Lines*. I have also read with great interest your attached article on lines in nature. We had a good example of what you are arguing for at the workshop with a contribution on nineteenth-century physiognomy by Jadwiga Kamola (Heidelberg). Referring to drawings of disfigured physiognomy, Kamola argued that it was actually the ‘reading’ of the line that created the fascination for the monstrous. With regard to Ruskin and his idea about the forced line, Barbara von Orelli (Zurich) introduced us to the illustrated forced line (a line as being ‘expressive of action’) that is part of van de Velde’s ornament conception. I do think that these ideas have also been influenced by Adolf von Hildebrand, who considered the perception of a sculpture in the nineteenth century and suggested a concept of effect (being influenced by theories of e-motion).⁵

³ See Jutta Vinzent. SpatioTemporalities on the Line: 8. Workshop on *Linien. RaumZeitliche Perspektiven* of the Erfurter RaumZeit-Gruppe in co-operation with the Max-Weber-Kolleg on 18 and 19 June 2015. *Nachrichten. Max-Weber-Kolleg* 16 (Winter 2015/16): 67f.

⁴ Ingold attached his essay Looking for Lines in Nature: Of Slugs and Storms. *Earthlines* 3 (2012): 48–51.

⁵ See Adolf von Hildebrand. *Das Problem der Form in der Bildenden Kunst*. Originally published in 1893. 5th ed. Strassburg: Heitz & Mündel, 1905.

I have been thinking about these ideas regarding sculpture for a while and have just revised an essay that will be published in an edited volume about form. Although it is not finished, I have attached a copy, in case you are interested in Hildebrand, Bergson and this early twentieth-century idea of a force in lines (in this case represented as strings in constructive sculpture).⁶ In short, I believe that your publications remain highly relevant to our book, and I would like to thank you again for your endorsement. With best wishes, Jutta

JV: Dear Tim, It has been a while since our last email exchange. I would like to get back to your query as to whether a line exists and how it exists, as surface, as an area or only mentally.

TI: I think a line exists in the first place as a movement, in the second place as the trace of a movement. Without movement there can be no line. It is true that the trace – say of pencil on paper – looks more like a smudge, if it is magnified. The more you enlarge it, the less it looks like a line. It has area. But once you restore the movement, the line immediately comes back. It is the same in nature. It has often been claimed that there are no lines in nature, so that only in our mind's eye – for example – do we see the plant stem as a line, and only by appealing to representational convention do we draw it as such. Close-up, the stem is a build-up of cellular material in cylindrical formation. It has volume. But the stem has as much right to be considered a line as the drawn trace. If the trace is described by a movement, the stem tells a history of growth.

JV: You use the notions of line and trace. How do lines relate to associated terms such as straight line, trace/track and ray?

TI: If the line is a movement, as I have suggested, then paradoxically, the straight line is not a line at all. It is the connection between two immobile points. The points are all it takes to define the line. As soon as you try to render the straight line in a material form, however, things get more complicated. In practical geometry, two materialisations are especially important: the stretched cord, strung between nails or pegs or as the warp of the loom; and the ray of light, conceived as a vector in optical projection. The stretched cord has properties of mass and

⁶ This essay has been published as Jutta Vinzent. Space and Form in String Sculptures: Naum Gabo, Barbara Hepworth and Henry Moore. In *Das Problem der Form. Interferenzen zwischen moderner Kunst und Kunstwissenschaft*. Hans Aurenhammer, Regine Prange (eds.). Berlin: Gebrüder Mann Verlag, 2016, 355–381.

tension: pluck it, and it vibrates. As for the ray of light, it is subject to the laws of diffraction. So there is movement in the cord or the ray, but it is transversal to the direction of the line.

JV: This is very helpful, because it emphasises your original conception of the line as movement. As an archaeologist working on Graeco-Roman Southern Syria (centred around the remains found in the region of Hauran, dating from the second century BCE and the fourth century CE), Anna-Katharina Rieger proposes in her essay published in this book that lines of water, those existing naturally as wadis, rivers and rain, and those built by humans, including channels, ponds and nymphaea, created and shaped social and, in some cases religious, ancient Mediterranean life. Thus, instead of taking the perspective that society is the productive force, her essay advocates that ancient Mediterranean societies were built upon and related with each other through a network defined primarily by lines of water. How would you consider such a perspective in light of you conceptualising the line as a cultural phenomenon rather than a simple geometric figure?

TI: This is a fascinating example. But I do not conceive of the line, in the first place, as a *cultural* phenomenon. I would simply regard the line as a *phenomenon*, before putting any qualifiers like ‘natural’ or ‘cultural’ before it. Then this idea of life as a meshwork of lines of water works very well. It is the *flow* of the water that makes every aquafer (whether naturally existing or artificially engineered) into a line. The thing about these flows is that they don’t connect points but simply carry on. This is why I speak of these lines as comprising a meshwork rather than a network.

JV: Network models also consist of lines that meet in node points, overlap and develop. How does your understanding of the line correspond with, reject or expand on the idea of the network?

TI: I’ve already mentioned the distinction between network and meshwork. It seems very obvious now, but it took a long time for me to work it out. I think the distinction is critical. I have wanted to get away from network thinking, which collapses everything there *is* into points and sees relations as always *between* one point and another, A and B. The lines of the meshwork have no beginning-points or end-points. They are always *in-between*, as are the waters of a flowing river between its banks.

JV: Lines have often been used to illustrate a spatial and chronological order (for example everyday language speaks of borderlines or timelines). As a dividing

line or border line, they have a career in post-structuralism, and have entered the history of philosophy as *différance*. How did you become attracted to the line?

TI: I was interested in musical notation, and in how it came to be distinguished historically from written text. Thus I was drawn to the melodic line of music, to the letter-line of the scribe, and to the scored lines of the manuscript, whether musical or textual.

JV: Your answer explains why you dedicate a chapter in your book *Lines* to ‘language, music and notation’. Lines have also embodied dimensions as demonstrated most clearly by Richard Long’s Land Art (e.g. *A Line Made by Walking*, 1967) or by American Land Art of the 1960s, as argued by Samantha Schramm in her contribution to this volume. Indeed, she considers it necessary to refer to Merleau-Ponty and his *Phenomenology of Perception*, which influenced artists such as Robert Morris. In a published essay in 1975, Morris describes his experience of visiting the Nazca Lines in Peru that he literally embodied the lines by walking on and ‘observing’ them, so that he was not only taking in the lines, but also producing them. In other words, perception went in and out. As soon as one thinks of lines, one also draws lines mentally into the reality.

TI: I don’t think it is a mental process, in a sense that we might want to distinguish from the physical process of marking the land by walking. I do not see how one can distinguish between mental and bodily inscription. What is critical is that in walking, much as in breathing, one is alternately ‘taking in’ and ‘going out’. Merleau-Ponty spoke in this vein of the ‘inhalation’ and ‘exhalation’ of being. The first, if you will, is an act of memory, the second an act of imagination. In walking, memory and imagination come together. I call it ‘longing’, along a line.

JV: Indeed, in his essay translated as ‘Eye and Mind’, Merleau-Ponty uses the word ‘inspiration,’ and the word should be taken literally. There really is inspiration and expiration of Being, respiration in Being, action and passion so slightly discernible that it becomes impossible to distinguish between who sees and who is seen [...]. The painter’s vision is an ongoing search.⁷

⁷ Maurice Merleau-Ponty. Eye and Mind. In *The Primacy of Perception. And Other Essays on Phenomenological Psychology, the Philosophy of Art, History of Politics*. James M. Edie (ed.), Evanston: Northwestern University Press, 1964, 159–192.

Deleuze and Foucault challenge lines fundamentally by referring to Ariadne's broken thread.⁸ In her essay on Flaubert's *Madame Bovary* for this book, Kathrin Fehringer uses this thread to explore the ironies in the interwoven clichés of nineteenth-century French bourgeois society. Do you think that lines symbolize a certain period (e.g. Modernism), particularly if they are considered as a cultural phenomenon (not just a formal appearance)? And that lines have been taken over by rhizomes, to apply a term coined by Deleuze and Guattari in their book *A Thousand Plateaus* (1980), in a timeline after Modernism?⁹ I think a good example of the structure of rhizomes is the Internet, particularly the possibilities of hypertext and hyper image, which allow one to move from one to the next without keeping a linear relationship. Or do different systems exist next to each other?

TI: All these literary allusions are beyond me! I am a mere anthropologist. But I do take the straight line to be an icon of modernity. My lines are what Deleuze and Guattari call 'abstract': not in the geometrical sense but in the sense proposed for painting by Wassily Kandinsky. They are also celebrated by John Ruskin in his writing on the Gothic.¹⁰ On new technologies, I have nothing to say. I do not like them, I do not use them (any more than I have to), and I do not understand them.

JV: Another point of discussion was the fold. Based on Foucault and Deleuze, Angelika Seppi argues in her essay for this book that the fold challenges the line in terms of immanence and performativity. The fold is all about *what is not* and *not now*, all about what is to come and to become other, all about a coming and becoming other of being and thought. How do you think fold and line are related?

TI: In his work on difference and repetition, Deleuze argues that the line (for example, of the walked path) differentiates itself from the ground without the ground differentiating itself from the line.¹¹ It is like a crease in a sheet. You can tell the crease from the sheet, but not the sheet from the crease. For the crease-

⁸ See Michel Foucault. Der Ariadnefaden ist gerissen. In *Der Faden ist gerissen*. Gilles Deleuze, Michel Foucault; Walter Seitter, Ulrich Raulf (trans.). Berlin: Merve, 1977, 7–12.

⁹ See Gilles Deleuze and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Brian Massumi (trans.). London: Athlone, 1988.

¹⁰ For Kandinsky, see Wassily Kandinsky. *On the Spiritual in Art*. Hilla Rebay (ed. and trans.). Originally published in 1912. New York: Solomon R. Guggenheim Foundation, 1949. For Ruskin, see John Ruskin. The Nature of Gothic. In *The Stones in Venice*. New York: John Wiley and Sons, 1867, vol. 2, 151–231.

¹¹ See Gilles Deleuze. *Difference and Repetition*. Paul R. Patton (trans.). Originally published in 1968. New York, Columbia University Press, 1994.

line is still *in* the sheet. It is not as though the sheet had parted company with the crease, leaving the crease-line high and dry while the sheet falls away into blank homogeneity. For me, the fold forms a crease in the ground.

JV: Where have the ideas about the line taken you since finishing your book?

TI: Well, I've written a sequel, *The Life of Lines* (2015).¹² So you will have to read that! Fundamentally, it is about the relation between lines and the atmosphere. It goes back to the alternation of inhalation and exhalation, or taking in and going out, about which we have already spoken. The weather is taken in; the line goes out. The sailboat, for example, takes the wind into its sails, but glides through the water along a line, leaving a wake behind it. It is the same with all animated life.

JV: Many thanks for your thoughtful insights into lines.

¹² See Tim Ingold, *The Life of Lines*. London: Routledge, 2015.