Queering the transect

Matthew Gandy

I feel at times a love and joy
For every weed and every thing.
John Clare, "The flitting"[1]

John Clare's poem, first published in 1835, evokes an intense connection with the Northamptonshire countryside, along with the menace of enclosure, and the destruction of human and other-than-human communities alike. The weed in question is shepherd's purse (*Capsella bursa-pastoris*), an inconspicuous plant characteristic of disturbed ground, which has distinctively heart-shaped seed pods. For Clare, shepherd's purse would have been a familiar plant of field margins, along with the many other species of plants and animals that feature in his writing. The poetry of Clare is rooted in the creative alchemy of walking, of stepping outside, of systematically retracing familiar itineraries, of taking time to notice subtle variations; his universe is marked by patience, slowness, and the presence of the political in small things. Though widely considered a Romantic poet, the work of Clare has a contemporary resonance with more elaborate conceptions of agency, and the significance of close observation for the formation of political insights into social and environmental change.[2]

In this brief essay I want to emphasize the significance of the transect as a creative act that transcends the mere application of a botanical method.[3] The argument brings the phenomenological insights of the feminist scholar Sara Ahmed into dialogue with a queered reading of urban botany. A transect is a kind of botanical reverie that connects the practice of walking with the space of thought and creativity itself.[4] Every kind of walk can be considered a kind of transect, or at least a "transection" in the earlier etymological sense of the verb "transect," derived from the Latin *trans* meaning "across" or "beyond" and *secare* meaning "to cut."[5] Having first appeared as a verb in the mid-seventeenth century, the English word transect begins to acquire usage as a noun in the early twentieth century, and becomes closely associated with the emergence of ecological science, the elucidation of vegetation patterns, and the application of modern botanical methods.

The botanical walk known as the "transect" has become one of the most familiar methods used in conducting ecological surveys. Unlike the "quadrat," which involves closely focusing on a small area, and is in essence a stationary method

Shepherd's purse (*Capsella bursa-pastoris*) growing in a London street, September 2019. The plant originates from Eastern Europe, and is considered to be an archaeophyte by European botanists (arriving before 1500). It has now spread through much of the northern hemisphere and beyond. Photo: Matthew Gandy.

to estimate species diversity, the "transect" is a mobile form of data collection that involves tracing a line through a designated area, typically on foot, in order to systematically record what can be found. These static and mobile dimensions to botanical method are complementary, and belie the impossibility of knowing everything: there is only so much human time, knowledge, and concentration that can be applied to any kind of ecological survey. And if the objective is to generate longitudinal data, and assess environmental change over time, then there is a kind of epistemological contract with the future, and the hope that perhaps as yet unknown individuals might assist in carrying on with the work.

A botanical transect typically involves walking in a straight line at right angles to a zone of transition produced by natural features such as coastlines, mudflats, marshes, or altitudinal variations. In 1905, for example, the American ecologist

Frederic Clements simply described the transect as "a cross section through the vegetation of a station, a formation, or a series of formations."[6] From the outset, however, there has been ambiguity over the appropriate scale for a transect, and by implication, how the data derived from this method might relate to broader inferences about the ecological characteristics of a wider area.[7] Hovering between a diagrammatic representation and an analytical tool, it is uncertain whether the purpose of the transect is to reveal identifiable "phytosociological communities" à la Braun-Blanquet and other plant sociologists, or merely to serve as a heuristic device for landscape interpretation. Writing in 1954, for example, the American botanist Dorothy Brown considers how the transect might be used for the exploration of "new territory" but refers to undertaking fieldwork by "road cruising" in a tacit admission that most landscapes are simply too vast to be systematically assessed by walking alone.[8] In the movement from a "walking line" to a "road line," there is an implicit acceleration so that details must be interpreted from more infrequent or distant forms of observation.

Modernity itself can be conceived as a series of lines, ranging from the regularization of space to a teleological understanding of its own historiography. For the anthropologist Tim Ingold, the act of walking in a straight line is an enactment of modernity that connects with the tracing of plotlines, land measurement, and the elevation of linearity to a mode of rational thought.[9] The idea of "straightening" has multiple connotations extending to questions of racial and sexual difference: an emphasis on linearity as a form of power finds echoes in Sara Ahmed's characterization of "the production of whiteness as a straight line."[10] Similarly, the performance of the line as a socio-spatial inscription of power is captured in the psychologist Carl Jung's observation, based on his travels in East Africa, that "the white man's idea is to walk straight ahead."[11] The role of walking as a contrary or dogged display of perseverance emerges as a constitutive element in the spatial imaginaries of European modernity.

Although the term "transect" only begins to appear in botanical literature in the early twentieth century, its practical roots can be traced back to the Humboldtian scientific tradition, the mania for measurement, and methodologies of imperial prospection. The practice of botany is connected with the scientific frontiers of territorial acquisition, including the emerging trade routes of global capital, the inland empires of "white settlerism" after what the Jamaican writer Sylvia Wynter refers to as the "1492 event," and the geo-political imaginaries of European fascism.[12] In the modern age, cartography emerges as a series of "points or dots" with the establishment of "lines of occupation" serving as the logistical precursors to "settlement and extraction."[13] The historiographic unease generated by a botanical itinerary with a purpose necessitates a careful reflection on the utilitarian dimensions to walking methodologies. Indeed, the use of the transect as an experimental method in its own right, as undertaken by artists and writers, serves as a useful counterfoil to the perpetuation of certain kinds of unreflective methodological empiricism.

Does the appearance of the "urban transect," in all its practical and experimental guises, disrupt or merely overlook its complex historical associations with the

utilitarian envisioning of nature? There are a number of botanical studies that simply apply the transect method directly to urban areas in order to examine the plant diversity at specific sites.[14] In other cases, a more schematic approach is adopted in order to provide a cross-sectional representation of the urban-rural gradient in terms of variations in the built environment and its characteristic vegetation.[15] The transect has also been adopted within some architectonic formulations as a way of depicting urban topography, or as an urban design tool, yet these approaches are invariably schematic depictions rather than a direct application of botanical method to urban space.[16] More prescient, however, are those botanical surveys that have sought to directly challenge the nativist preoccupations of plant sociology and its colonial underpinnings, by emphasizing the novel socio-ecological assemblages to be found in urban space. In the hands of geographers such as Gerhard Hard, botanical methods not only enable interpretation of the unusual characteristics of urban vegetation but also become a means to interrogate the history of landscape itself, in all its ideological complexity.[17]

Cultural iterations of the urban transect can take several different forms. An urban transect can follow a line produced by infrastructure networks such as roads, canals, or railway lines, as reflected in projects such as the LA-based artist Ed Ruscha's series of photographs entitled *Every Building on the Sunset Strip* (1966). The simple practice of walking is also a significant motif within Land Art, exemplified by Richard Long's performance *A Line Made by Walking* (1967), which records a transitory impression left by the artist walking across a field. In some cases the transect becomes the ecology of the line itself, as in studies of plants growing in the interstitial spaces produced by transport networks such as roadside verges or railway embankments. In other examples a more conventional type of botanical transect is undertaken within a chosen site, as reflected in a variety of works by the French artist Paul-Armand Gette such as his 16-mm film entitled *Le Transect* (1974). In some instances, there is an attempt to transect space directly, as in the performance art of Simon Faithful, where in an homage to Buster Keaton, he scales fences and crawls through windows to follow the meridian line as precisely as possible in *0°00 Navigation* (2008). Similarly, Gordon Matta-Clark's intervention entitled *Splitting* (1974) sees a recently abandoned house cut in half so that the transect becomes an active sculptural intervention in urban space.

Writers have also used the transect as a way to structure a narrative around movement through space. The transect can be conceived as a Perecian literary device, serving to spur heightened forms of observation and creative reflection through the use of an artificial constraint.[18] The idea of the line as a restriction on thought, or a form of conceptual rigidity, is effectively inverted to heighten the experience of space. Examples include the French writer François Bon, who describes the changing landscapes he observes on his regular commute from Nancy to Paris, or the Welsh writer Iain Sinclair's exploration of London's hinterland by tracing the route of the M25 orbital motorway.[19]

A botanical transect is an embodied methodology par excellence: the systematic recording of plant life involves not just training the eye to notice small details,

Richard Long, *A Line Made by Walking* (1967). Photo: Copyright Tate Gallery.

using sophisticated forms of pattern recognition, but also the use of other sensory clues such as smell to help identify specific plants, haptic interactions with leaves to explore their surface textures, and an awareness of small variations in light and shade, to produce an "incidental sensorium" that is open to the unexpected. The completion of a transect introduces a degree of "slowness" to the navigation of space that echoes Isabelle Stengers's appeal for *ralentissement* (deceleration) in scientific practice.[20] Indeed, the very act of slowing down can be likened to a kind of "ecological loitering" that serves as an entry point into the nuance and complexity of urban space.

The transect also resonates with psychogeographical explorations of the modern city. And yet the situationist excursion or *dérive*, in its classic late 1960s formulation, has little grounding in ecological observations.[21] Methodologically, the *dérive* is a highly impressionistic if not masculinist cultural trope, although we should be cautious over any essentialist form of epistemological critique. For the Paris-based writer Lauren Elkin, it is attentiveness to the shifting and often invisible contours of the "affective landscape" that marks the starting point for urban walking as a form of societal critique as well as critical reflection.[22] Similarly, the geographer

Morag Rose shows how urban walking can "follow lines of desire, curiosity and coincidence but also invisible threads of power and the whispers of ghosts under the pavement." Rose emphasizes how the use of walking as experimental practice can "disrupt the banal" and reveal "minor epiphanies."[23]

The ethnographic transect is rooted in a slow and often painstaking immersion in urban space that points towards the conceptual orientation of the embodied human subject, in an intellectual manoeuvre that questions relations between bodies, objects, and others. To queer the transect is to destabilize this walking methodology from a variety of empirical and conceptual vantage points. The relevant insights from queer theory clearly extend beyond the identification of "queer space," or the use of a transect to encounter traces of human sexuality. In fact, they serve to problematize a series of categorizations, taxonomies, and subjectivities.[24] Queering the transect connects botanical practice with a series of post-human and other-than-human critical discourses. Following the lead of Sara Ahmed we can introduce the significance of "queer phenomenology" as a matter of orientation that operates on different levels: firstly, the orientation of the human subject towards objects and others (in a variety of configurations that extend to other-than-human nature such as plants); and secondly, Ahmed's play on the word "orient" as a geographical and ideological counterpoint to modernity that connects with the recognition of cosmopolitan urban ecologies.[25] The transect invites a reverie of disorientation as the queered observer becomes "lost" within the line. What appears to be simply given, as part of the "taken for granted" world within idealist cosmologies, is rendered off centre or unfamiliar: there is a productive dissonance between the familiar and the unfamiliar. Taking the diasporic dimension to disorientation further, we can characterize cosmopolitan ecologies as a kind of "queer regional imaginary," following the insights of cultural critic Gayatri Gopinath that stands in explicit contradiction to nativist landscape idioms.[26]

The etymology of the word "transect" also connects with recent developments in "trans theory" as a further elaboration on the queering of space, materiality, and the human subject. Drawing on the relational rather than nominal import of trans theory, as a matrix of connections rather than a set of categories, we can connect with "proliferating ecologies of embodied difference." The spatial implications of "transing" the world encompass a series of movements where "the lines implied by the very concept of 'trans-' are moving targets, simultaneously composed of multiple determinants."[27] Implicit within the prefix "trans" is a sense of multiple crossings, not just of walking across, but also of interspecies encounters, including an enrichment of the botanical imagination. Trans theory unsettles the re-inscription of the (modified) human subject within the burgeoning field of post-humanist studies and widens the potential scope of interspecies interactions.[28] The displacement of heteronormative space opens up the affective potentialities of socio-ecological assemblages as well as the multiple sexualities that suffuse the non-human realm, including plant life (to the evident unease of early botanists).[29] The unsettling of existing taxonomies or classification systems holds implications far beyond the confines of urban ecology.

Perennial wall-rocket (*Diplotaxis tenuifolia*) growing in Park am Gleisdreieck, Berlin, September 2019. The plant originates from the Mediterranean region, and is considered to be a neophyte by European botanists (arriving after 1500). It is now a common component of the ruderal flora of many European cities. Photo: Matthew Gandy.

The sense of what is "in place" clearly rests on the operation of repetition, familiarity, and naturalization: a set of ideological coordinates that routinely ignores the complexity of lived space occasioned by the interpolation of difference. The socio-ecological determinants of space comprise a series of lines–both temporal and spatial–that rest on an array of affective and material orientations. If we consider marginal spaces in European cities, one common adventive plant that we encounter is the yellow flowered *Diplotaxis tenuifolia*, which originates from the southern Mediterranean and parts of western Asia. The presence of *Diplotaxis*

tenuifolia and other non-native species invites reflection on the ecological lineaments of Ahmed's use of the term "constitutive outside," and the way in which the history of vegetation science in a European context had emerged in the context of anxiety over the perceived inauthenticity of unusual socio-ecological formations. In a German context, for example, pre-war botanists placed particular emphasis on the perceived threat to the "purity" of the central European flora posed by plants from "the East" in an explicit elision of geo-political and ecological imaginaries.[30] This queering of botanical methods connects with a wider set of discourses concerning the human subject, the history of science, and the role of walking methodologies in ecological surveys. I use the term "ecological" in this instance to denote a set of relations that transcend the here and now of site specific observations. The urban transect emerges as a kind of epistemological and ideological disturbance, not only to the historiography of botany and related fields, but also to the boundaries and categories that inhere within modernity itself. The botanical transect is a means to systematically record material differences, but it is also a spur to thought and reflection in its own right.

1 The poem was originally published under the title "On leaving the cottage of my birth," See Jonathan Bate, ed., *John Clare: selected poems* (London: Faber and Faber, 2004).

2 There are parallels between Clare's political awakening through observations of nature and the twentieth-century revelations of Rachel Carson. See Meehan Crist, "A strange blight," *London Review of Books* 41 (11) (6 June 2019) pp. 3–7.

3 Earlier versions of this essay received helpful feedback from Stephen Barber, Yasminah Beebeejaun, and Marion Ernwein.

4 On walking and creativity see, for example, David Evans, ed., *The art of walking* (London: Black Dog Publishing, 2012); and Frédéric Gros, *A philosophy of walking*, trans. John Howe (London: Verso, 2014 [2009]).

5 Oxford English Dictionary (www.oed.com) (accessed 30 July 2019).

6 Frederic Edward Clements, *Research methods in ecology* (Lincoln, Nebraska: The University Publishing Company, 1905) p. 176.

7 R. H. Whittaker, "Gradient analysis of vegetation," *Biological Reviews* 49 (1967) pp. 207–264.

8 Dorothy Brown, *Methods of surveying and measuring vegetation* (Farnham: Commonwealth Agricultural Bureaux, 1954).

9 Tim Ingold, *Lines* (London: Routledge, 2007).

10 Sara Ahmed, *Queer phenomenology: orientation, objects, others* (Durham, NC: Duke University Press, 2006) p. 121.

11 Cited in Blake W. Burleson, *Jung in Africa* (New York: Continuum, 2005) p. 114.

12 Sylvia Wynter, "1492: A New World View," in Vera Lawrence Hyatt and Rex Nettleford, eds., *Race, discourse, and the origin of the Americas* (Washington DC: Smithsonian Institution Press, 1995) pp. 5–57. On plants and empire building see, for example, Londa Schiebinger, *Plants and empire: colonial bioprospecting in the Atlantic world* (Cambridge, MA: Harvard University Press, 2004).

13 Ingold, *Lines*, pp. 85, 87.

14 See Kevin Austin, *Botanical processes in urban derelict spaces* (University of Birmingham, unpublished PhD thesis, 2002).

15 See Herbert Sukopp, ed., *Stadtökologie: Das Beispiel Berlin* (Berlin: Dietrich Reimer, 1990).

16 See, for example, Andrés Duany and Emily Talen, "Transect planning," *Journal of the American Planning Association* 68(3) (2002) pp. 245–266; and Nicolas Tixier "Le

transect urbain: Pour une écriture corrélée des ambiances et de l'environnement," in Sabine Barles and Nathalie Blanc, eds., *Écologies urbaines: Sur le terrain, Economica-Anthropos* (PIR Ville et Environnement, 2016) pp. 130–148.

17 See, for example, Gerhard Hard "Die Natur, die Stadt und die Ökologie: Reflexionen über "Stadtnatur" und "Stadtökologie,"' in *Dimensionen geographischen Denkens* (Osnabrück: V & R unipress, 2003[1994]) pp. 341–370.

18 See, for example, Richard Phillips, "Georges Perec's experimental fieldwork; Perecquian fieldwork," *Social & Cultural Geography* 19 (2) (2018) pp. 171–191.

19 François Bon, *Paysage fer* (Lagrasse: Verdier, 2000); Iain Sinclair, *London Orbital: a walk around the M25* (London: Granta, 2002)

20 Isabelle Stengers, *Another science is possible: a manifesto for slow science*, trans. Stephen Muecke (Cambridge: Polity, 2017 [2013]).

21 On aspects of the dérive as methodology see also Philip Conway's review of Stengers, *Another science is possible,* on the *Society and Space* website (2018) (accessed 30 July 2019).

22 Lauren Elkin, *Flaneuse: women walk the city in Paris, New York, Tokyo, Venice, and London* (London: Chatto and Windus, 2016) p. 288.

23 Morag Rose, "Confessions of an anarcho-flâneuse, or psychogeography the Mancunian way," in Tina Richardson, ed., *Walking inside out: contemporary British psychogeography* (London: Rowman & Littlefield, 2015) pp. 158, 159, 160. See also Stephanie Springgay and Sarah E. Truman, *Walking methodologies in a more-than-human world: WalkingLab* (London: Routledge, 2018).

24 See, for example, Claire Colebrook, "On the very possibility of queer theory," in Chrysanthi Nigianni and Merl Storr, eds., *Deleuze and queer theory* (Edinburgh: Edinburgh University Press, 2009) pp. 11–23.

25 Sara Ahmed, *Queer phenomenology: orientation, objects, others* (Durham, NC: Duke University Press, 2006).

26 Gayatri Gopinath, *Unruly visions: the aesthetic practices of queer diaspora* (Durham, NC: Duke University Press, 2018).

27 Susan Stryker, Paisley Currah, and Lisa Jean Moore, "Introduction: trans-, trans, or transgender?," *Women's Studies Quarterly*, 36 (3/4) (2008), pp. 12, 13.

28 See, for example, Julie Livingston and Jasbir K. Puar, "Interspecies," *Social Text* 106 29 (1) (2011) pp. 1–14; and Camille Nurka, "Animal techne: transing posthumanism," *TSQ: Transgender Studies Quarterly* 2 (2) (2015) pp. 209–226.

29 Londa Schiebinger, "Gender and natural history," in N. Jardine, J. A. Secord, and E. C. Spary, eds., *Cultures of natural history* (Cambridge: Cambridge University Press, 1996) pp. 163–177.

30 See, for example, Gert Gröning and Joachim Wolschke-Bulmahn, "Politics, planning and the protection of nature: political abuse of early ecological ideas in Germany, 1933–45," *Planning Perspectives* 2 (2) (1987) pp. 127–148.