

11 Ce n'est pas le monde (This is not the world)

John Krygier

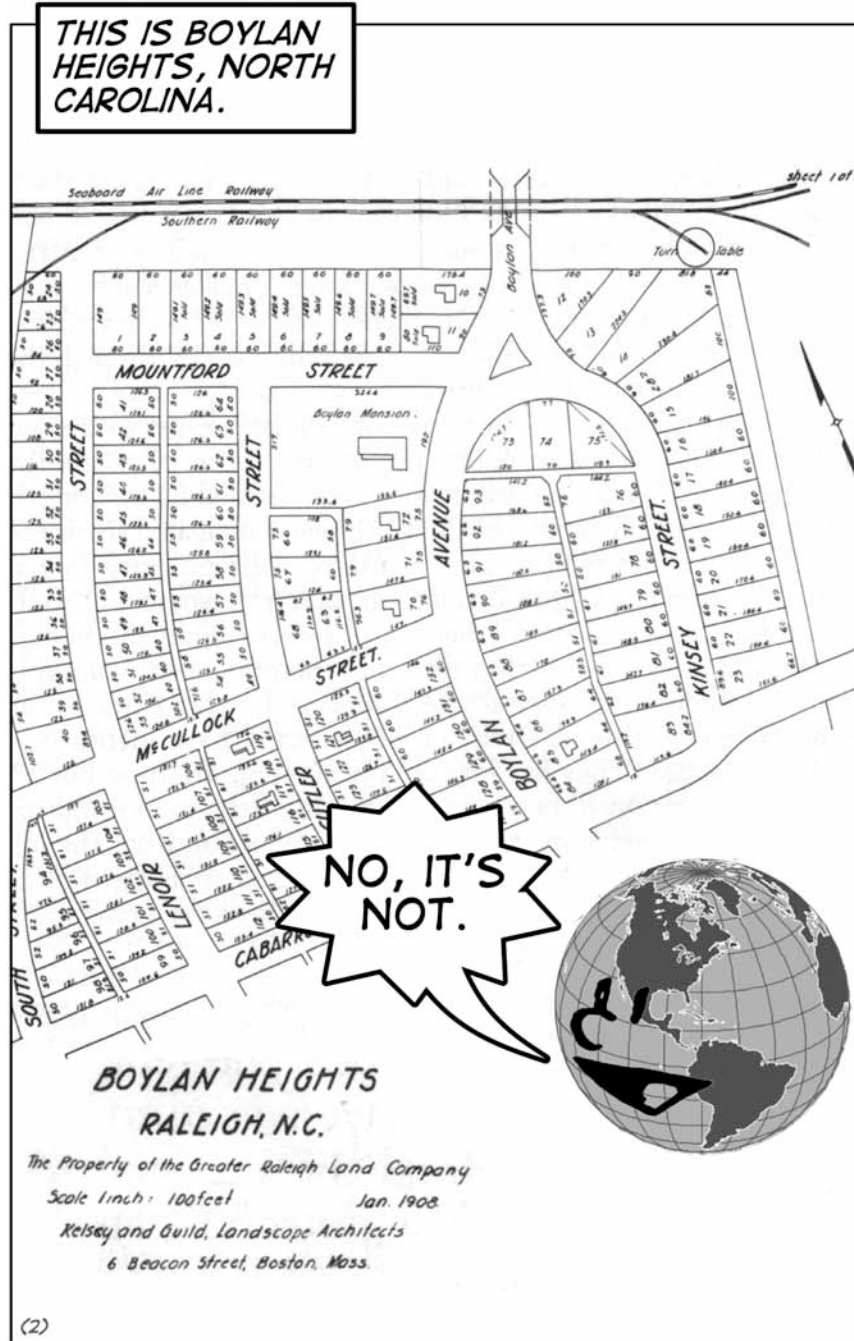
Department of Geology and Geography, Ohio
Wesleyan University

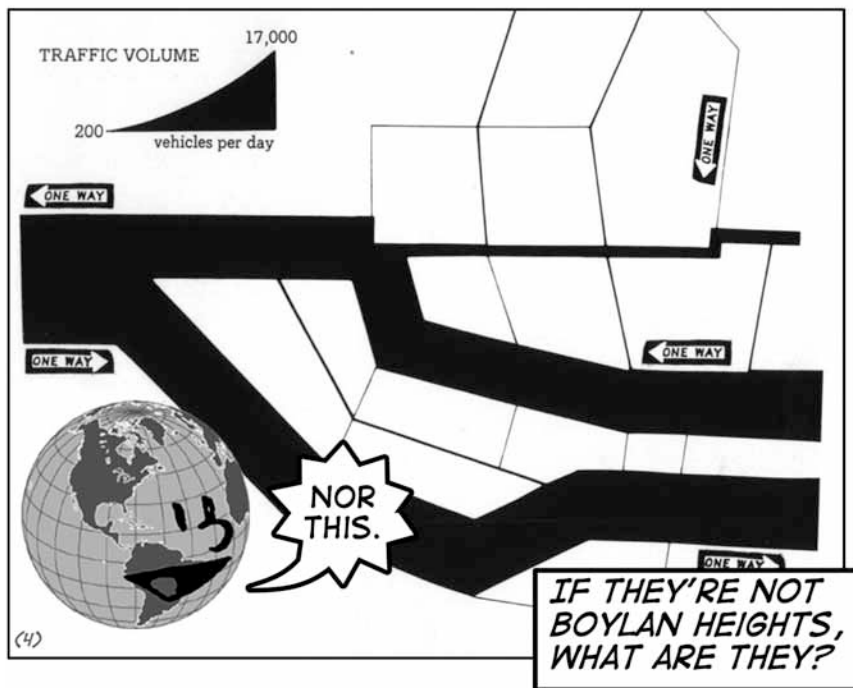
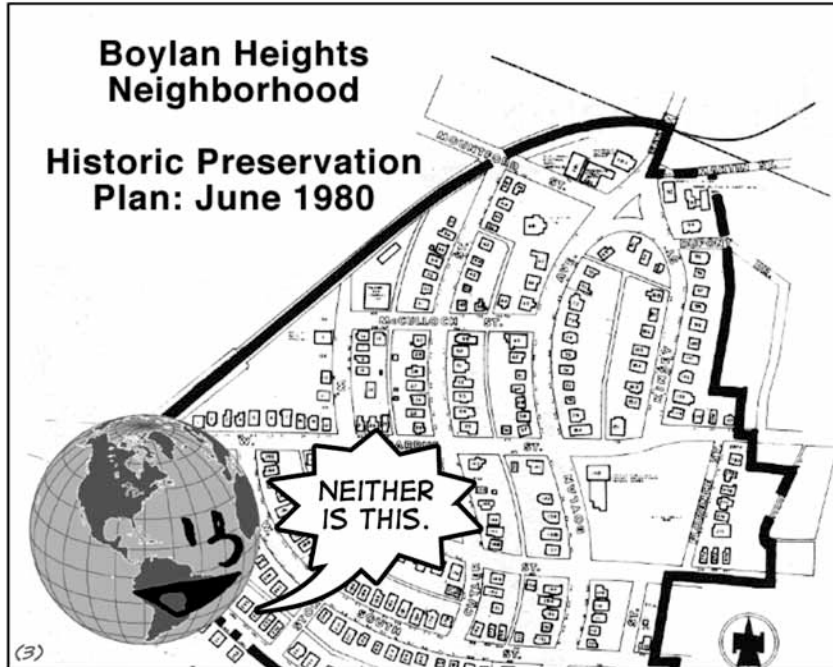
Denis Wood

Independent Scholar, Raleigh, North Carolina



190 John Krygier and Denis Wood





A MAP IS A PORTRAYAL ON A PLANE OF THE SURFACE OF THE EARTH OR SOME LARGER OR SMALLER PORTION OF IT.
MAX ECKERT

SO IT'S A PORTRAYAL?

A MAP IS A REPRESENTATION OF THE MILIEU.
ARTHUR ROBINSON

SO IT'S A REPRESENTATION?
(WHAT THE HELL IS A MILIEU?)

A MAP IS AN IMAGE PROCLAIMING ITS OBJECTIVE NEUTRALITY.
DENIS WOOD

SO IT'S AN IMAGE?

MAPS ARE WAY TOO ABSTRACT TO BE PORTRAYALS OR IMAGES. REPRESENTATION IS A FANCY WORD THAT BOGS US DOWN IN ONTOLOGICAL QUIBBLES, BUT LET'S TAKE A CLOSER LOOK AT IT ANYWAY.

PAULINE ROSENAU DESCRIBES SIX KINDS OF REPRESENTATIONS. WHERE DO MAPS FIT?

DELEGATION: "ONE INDIVIDUAL REPRESENTS ANOTHER IN PARLIAMENT." MAPS DON'T SEEM TO BE THIS KIND OF REPRESENTATION AT ALL.

RESEMBLANCE: "A PAINTING REPRESENTS ON THE CANVAS WHAT THE PAINTER OBSERVES." MAPS ARE NOT VIEWS. THEY SHOW US HEAVILY TRANSFORMED OBSERVATIONS. SOME MARKS ON MAPS SORT OF LOOK LIKE STUFF IN THE WORLD, BUT ARE VERY ABSTRACTED AND GENERALIZED.

REPETITION: AS WHEN A COURT REPORTER TYPES THE WORDS SHE HEARS IN COURT. BUT IT'S AS PLAIN AS CAN BE THAT MAPS DON'T REPEAT THE WORLD THIS WAY. UNLIKE A COURT REPORTER MAPS PICK AND CHOOSE THIS OR THAT PART OR ASPECT OF THE WORLD, AND THEN MAPS ABSTRACT THE PIECES CHOSEN.

The background features a topographic map with labels for 'PENNSYLVANIA SYSTEM', 'SANBUSHKY AND CLEVELAND AND CINCINNATI (THE)', 'ELECTRA', 'C.C.C. AND S.T.L.R.R.', and 'US 3'.

REPLICATION: "THE PHOTOGRAPH (IMAGE) REPRESENTS THE PERSON PHOTOGRAPHED (OBJECT)." IF MAPS REPLICATE (ECHO, COPY) THE WORLD THEY DO IT IN A HIGHLY MODIFIED MANNER, IN NO WAY LIKE A PHOTO. INDEED, THE POWER OF A MAP COMES FROM THE FACT THAT IT DOESN'T JUST REPLICATE THE WORLD!

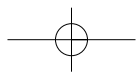
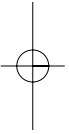
DUPLICATION: "A PHOTOCOPY REPRESENTS THE ORIGINAL." IF YOU TIP A HUGE COPY MACHINE OVER ONTO THE WORLD AND HIT "COPY" YOU DON'T GET A MAP.

SUBSTITUTION: "LAWYERS REPRESENT THEIR CLIENTS IN COURT." IN DOING SO, LAWYERS LITERALLY "TAKE THE PLACE" OF THEIR CLIENTS. THEY ACT FOR THEM, SPEAK FOR THEM, AND MAKE DECISIONS FOR THEM. THOUGH MAPS MAY ADVANCE PROPOSALS ON BEHALF OF THOSE WHO OWN OR CONTROL TERRITORY, THE MAPS IN NO WAY SUBSTITUTE FOR THE TERRITORY. YOU CANNOT BUILD ON THE MAP, MINE IT OR BULLDOZE IT.

ARE MAPS REPRESENTATIONS AT ALL?

NO WAY! BUT THERE IS A WAY TO THINK ABOUT MAPS THAT'S MORE RESPONSIBLE AND MORE USEFUL ... ESPECIALLY IF YOU ARE MAKING MAPS.


196 *John Krygier and Denis Wood*





and thinking through the problem in this way makes it highly questionable whether there is any sense in which maps are representations.

Maps are propositions. Maps are propositions in graphic form. Technically a proposition is a statement in which the subject is affirmed or denied by its predicate, but this is precisely what a map does, affirms the existence and location of its subjects. *This is there*, the map affirms, again and again and again.

The map's affirmation is almost uniquely robust. It says, of let us say a house of worship, that, first of all, a house of worship is a thing that exists. We call this the precedent existential proposition: *this* (a house of worship) *is*. Many maps advance existential propositions in their legends. "*House of worship*," such legends say, and next to the words they place the mark .

Maps affirm more, however, than the existence of a conceptual category. Here, maps say, is an *instance* of such a thing, and here is another, and here are others still. What makes the map's affirmation so ringing is the implicit challenge: "You don't believe it? Go check it out!" This instantiation of the precedent *existential* proposition is the fundamental *cartographic* proposition: *this is there*. We call the fundamental cartographic proposition a posting.

The posting has a logical form which is essential to observe. Just as the posting affirms the existence of the *this*, so it affirms the existence of the *there*. The *there* is the instantiation of the precedent existential proposition, *there is*. That is, the posting conjoins two precedent existential propositions, *this is* and *there is*, to give us *this is there* and, equivalently, *there is this*. Once posted, the *this* takes on *thereness*, a quality of being *somewhere*, as the *there* takes on *thisness*, a quality of being *something*.

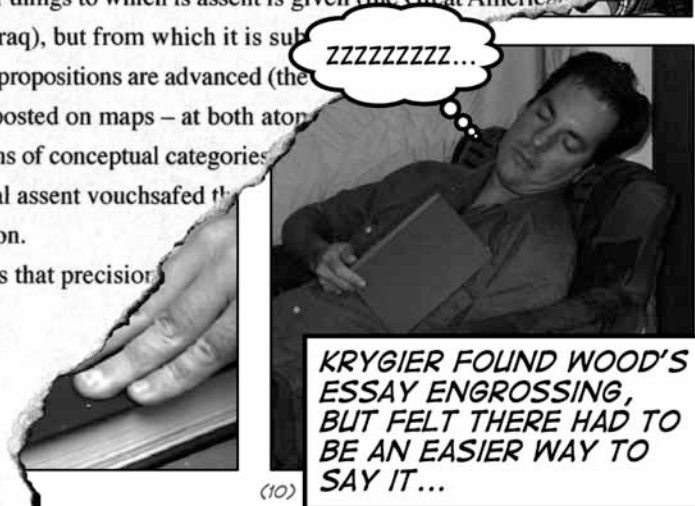
The map's implicit challenge is not simply to find an instance of a *this* or a *there*, but to find that *this is there* precisely where *there is this*.

Most maps consist of hundreds, even of thousands of postings. Small scale maps may consist of hundreds of thousands of postings. Postings are organized by the map's propositional logic which dictates how postings may be manipulated in the construction of the map's higher order propositions. As atoms are combined into molecules, so postings are combined into higher order postings; as molecules are decomposed into their constituent atoms, higher order postings are likewise. At the atomic level, a map may post a house of worship, a school, and a street, *and* at the molecular level post a neighborhood and a city (that is, affirm the propositions that *neighborhood and city are and are there*). Similarly a map posting a city and a neighborhood may post a street, a school, and a house of worship. This relationship permits the conveyance of authority from one level to another.

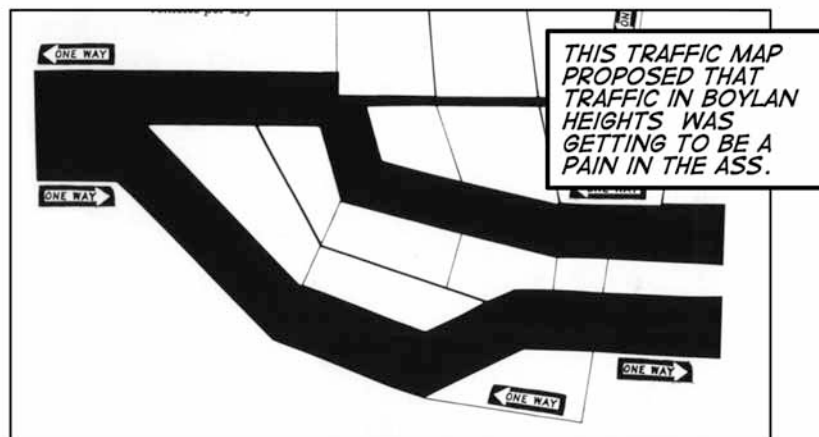
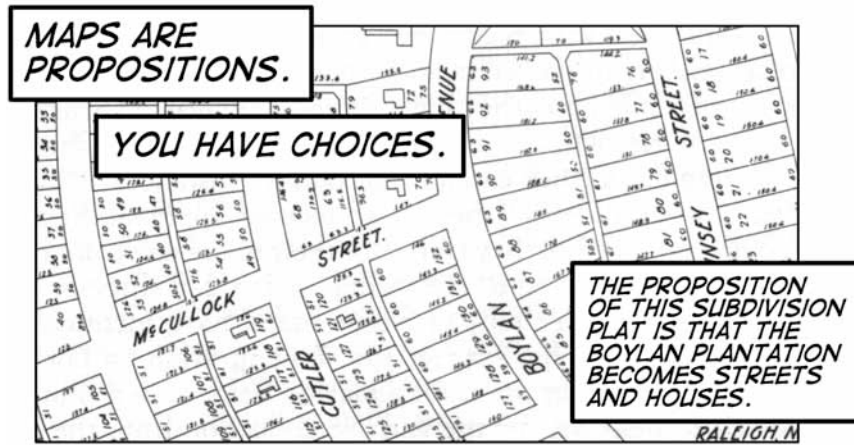
Maps may post things that don't yet exist (as of proposed roads), or things that have ceased existing (as of ancient Rome), or that are outside the realm of existence (as of Middle-earth). One map may post a thing here that another posts somewhere else. Frequently maps propose the existence of things to which assent is given (the Great American *Victory* in Iraq), but from which it is subsequently subverted (the *Victory* which new propositions are advanced (the things posted on maps – at both atomic and molecular levels – are instantiations of conceptual categories on the social assent vouchsafed their location.

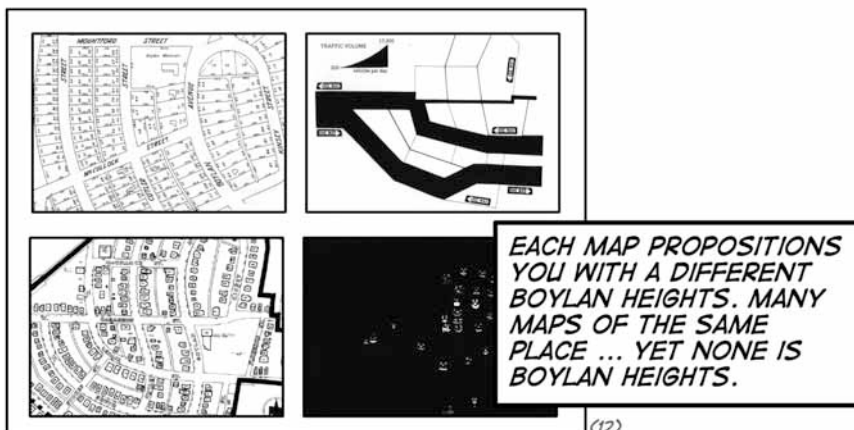
It follows that precision

(9)



200 John Krygier and Denis Wood





202 John Krygier and Denis Wood



MAPMAKERS
PROPOSITION
YOU WITH VERY
DIFFERENT
REALITIES

THIS IS NORTH INDIA.

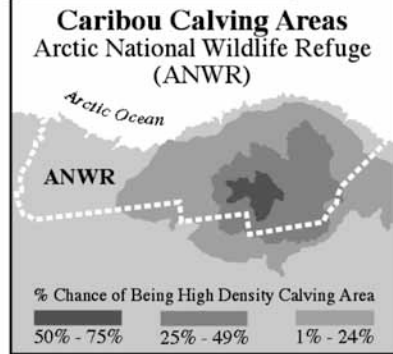


NO, INFIDEL, THIS IS
NORTH INDIA.

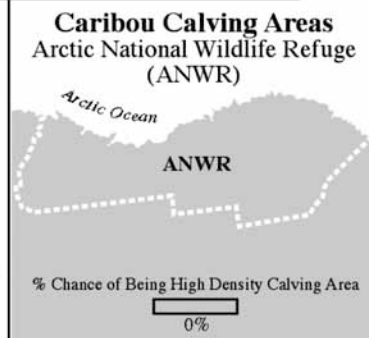


(13)

THIS IS WHERE
CARIBOU CALVE IN
ANWR.



NO, TREE HUGGER,
CARIBOU DON'T CALVE
IN ANWR.

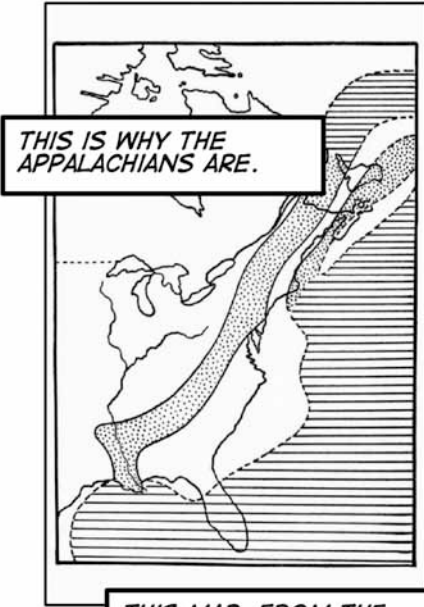


(14)

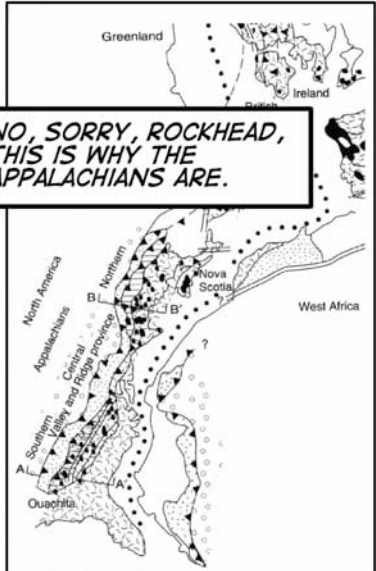
A U.S. GOVERNMENT
EMPLOYEE WAS FIRED
FOR LEAKING MAPS OF
CARIBOU CALVING AREAS
TO THE PUBLIC.



CONFLICTING PROPOSITIONS ABOUT THE APPALACHIANS.



THIS IS WHY THE APPALACHIANS ARE.



NO, SORRY, ROCKHEAD, THIS IS WHY THE APPALACHIANS ARE.

(15)

THIS MAP, FROM THE 1940S, PROPOSED THAT THE APPALACHIANS WERE A GEOSYNCLINE UPLIFTED BY ISOSTATIC FORCES.

THIS MAP, FROM THE 1990S, PROPOSED THAT THE APPALACHIANS WERE PART OF A PANGEAN OROGEN TERMINATED BY A CONTINENTAL COLLISION.

WHICH SIDE ARE YOU ON?

FLORENCE REECE, 1991



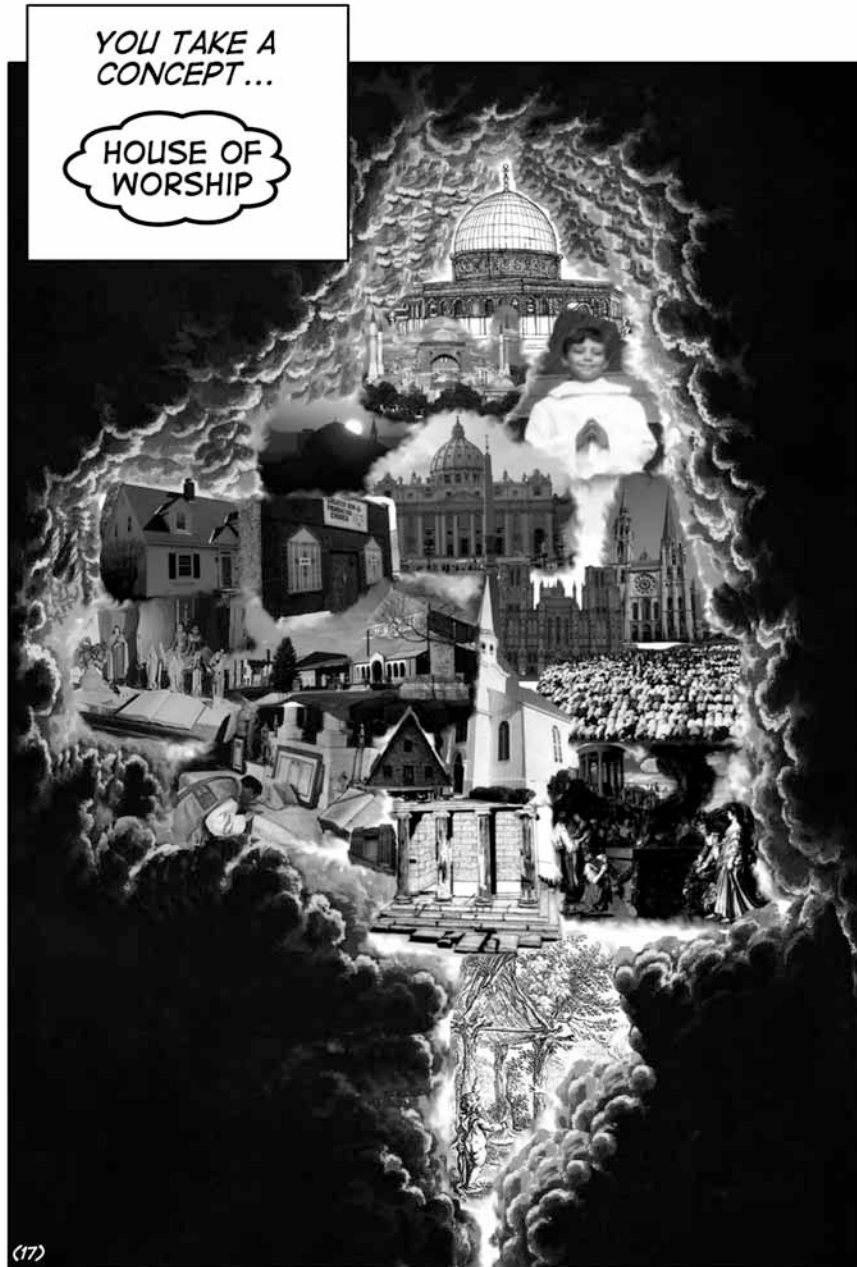


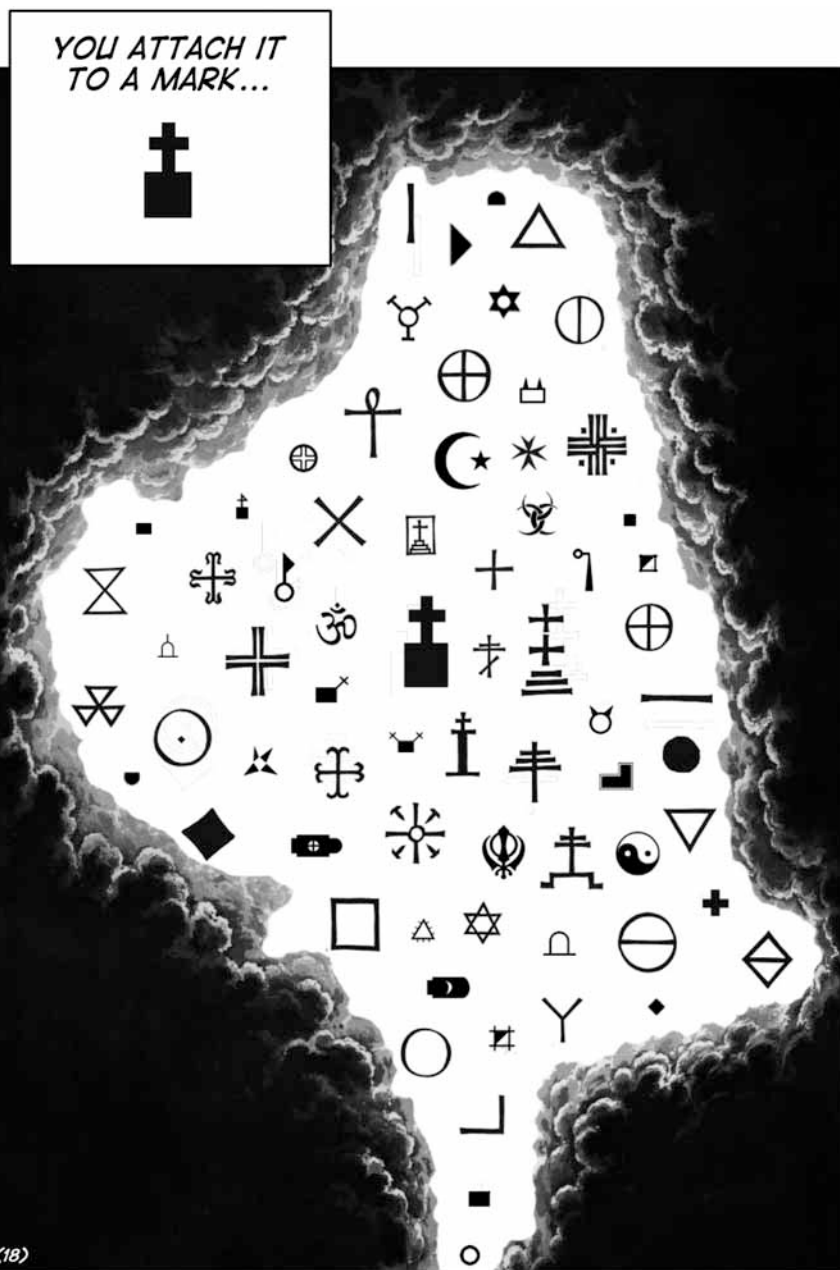
(18)



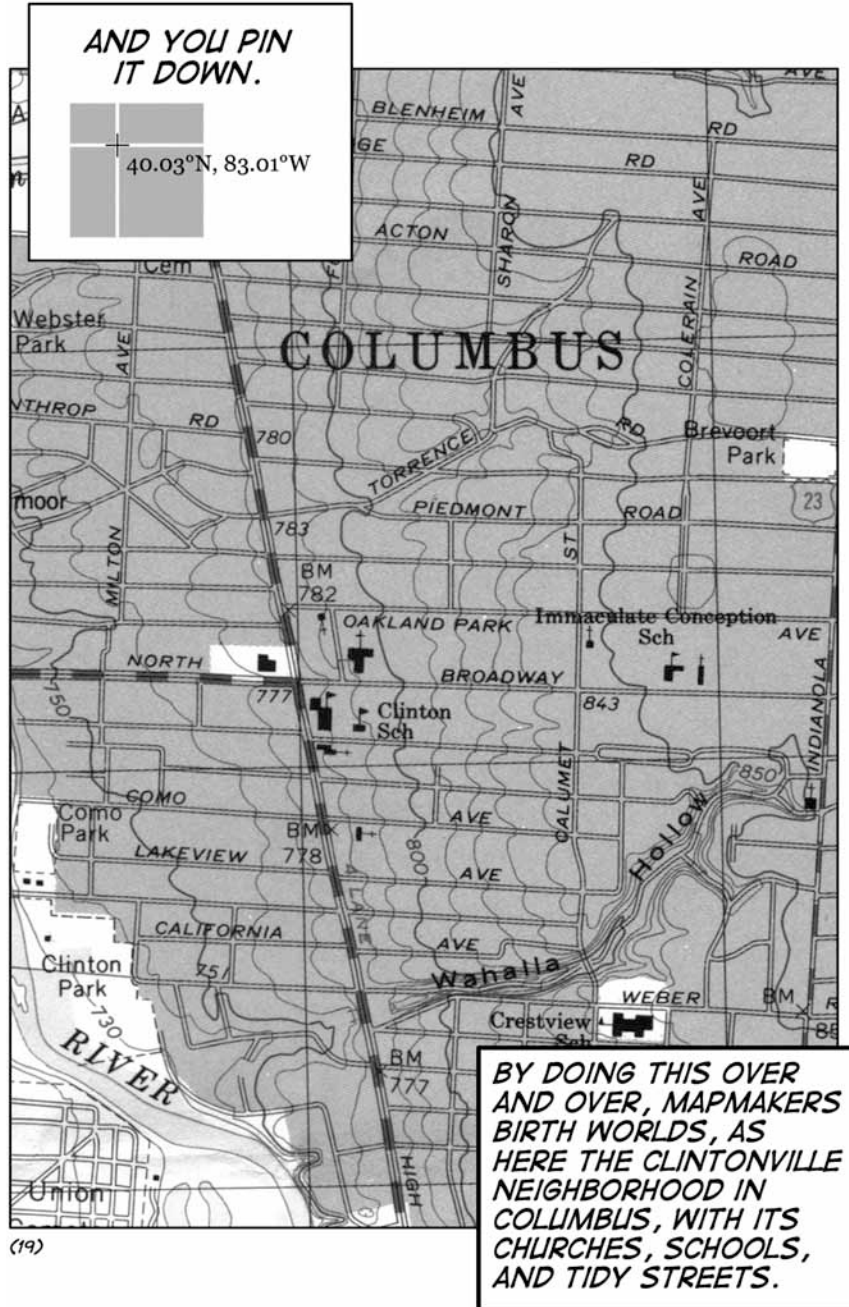
PIN OAKS
ARE HARD
TO PIN
DOWN!

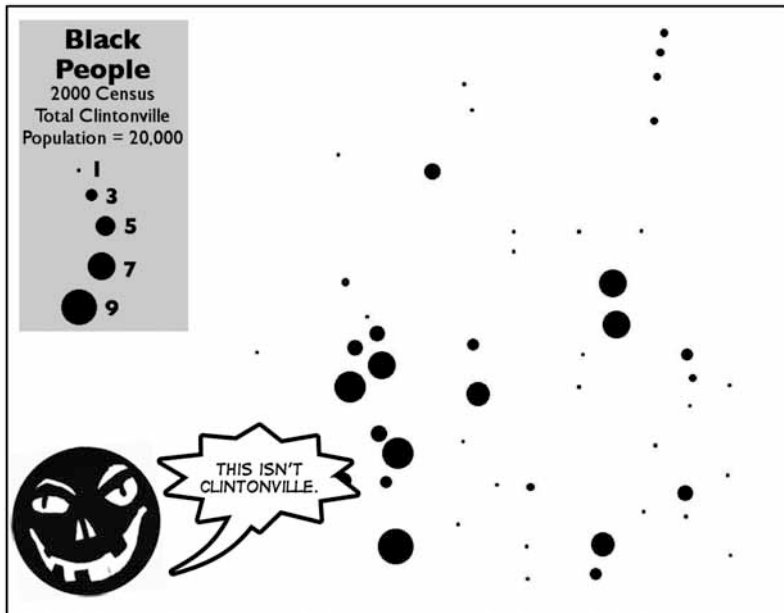
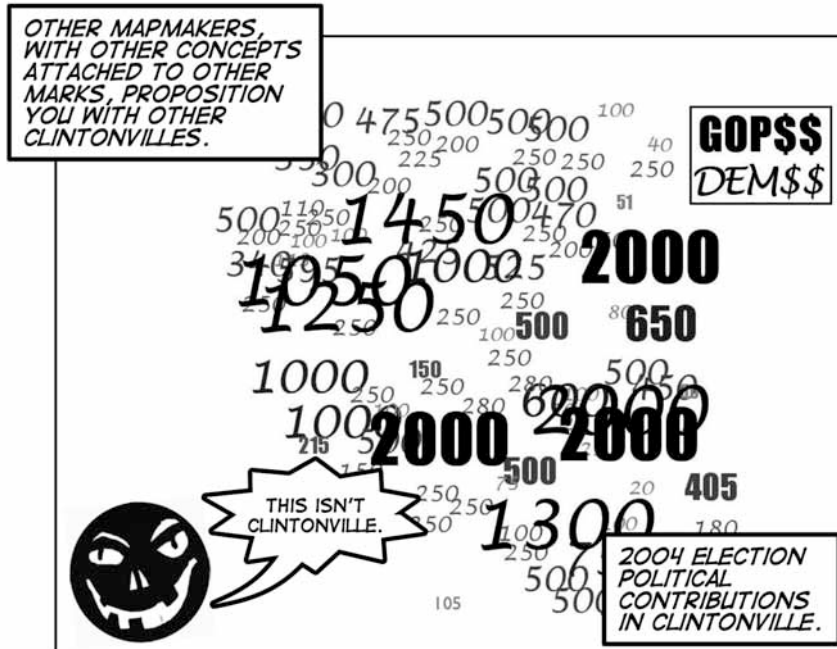
SO HOW DO
MAPS WORK TO
PROPOSITION
YOU?





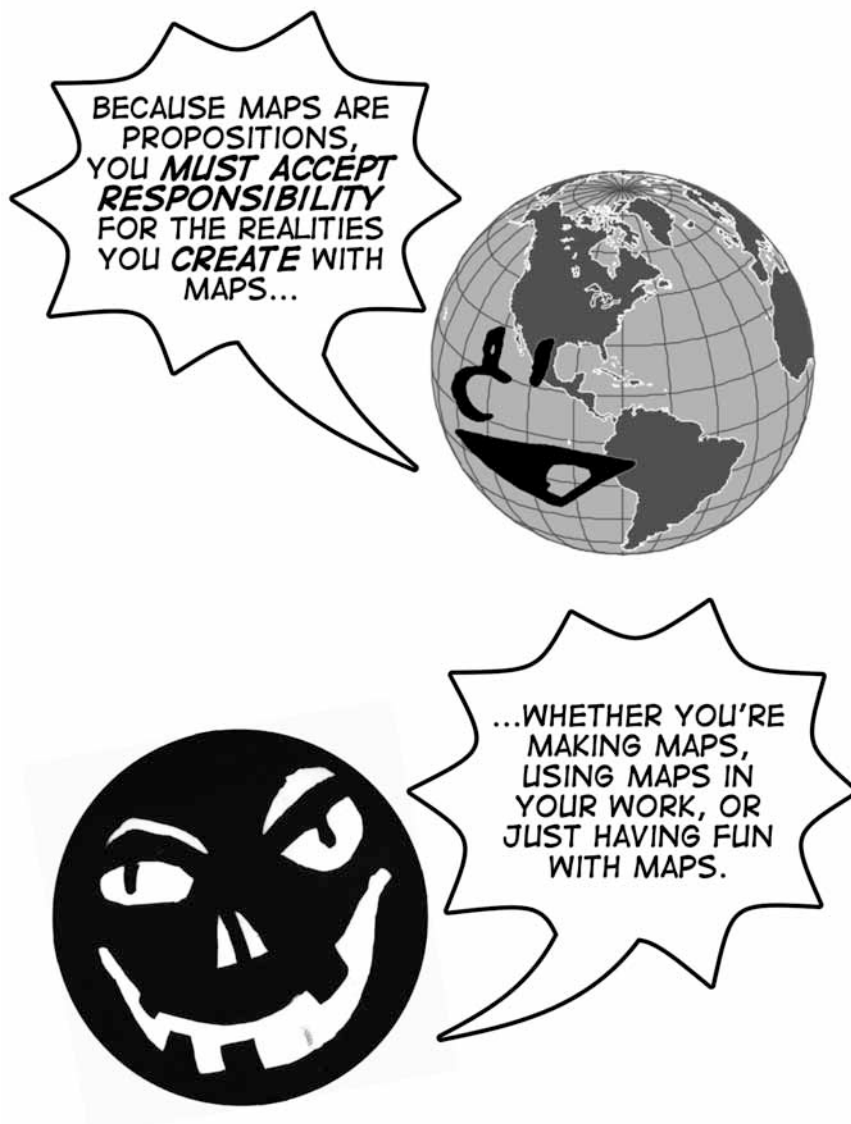
208 John Krygier and Denis Wood



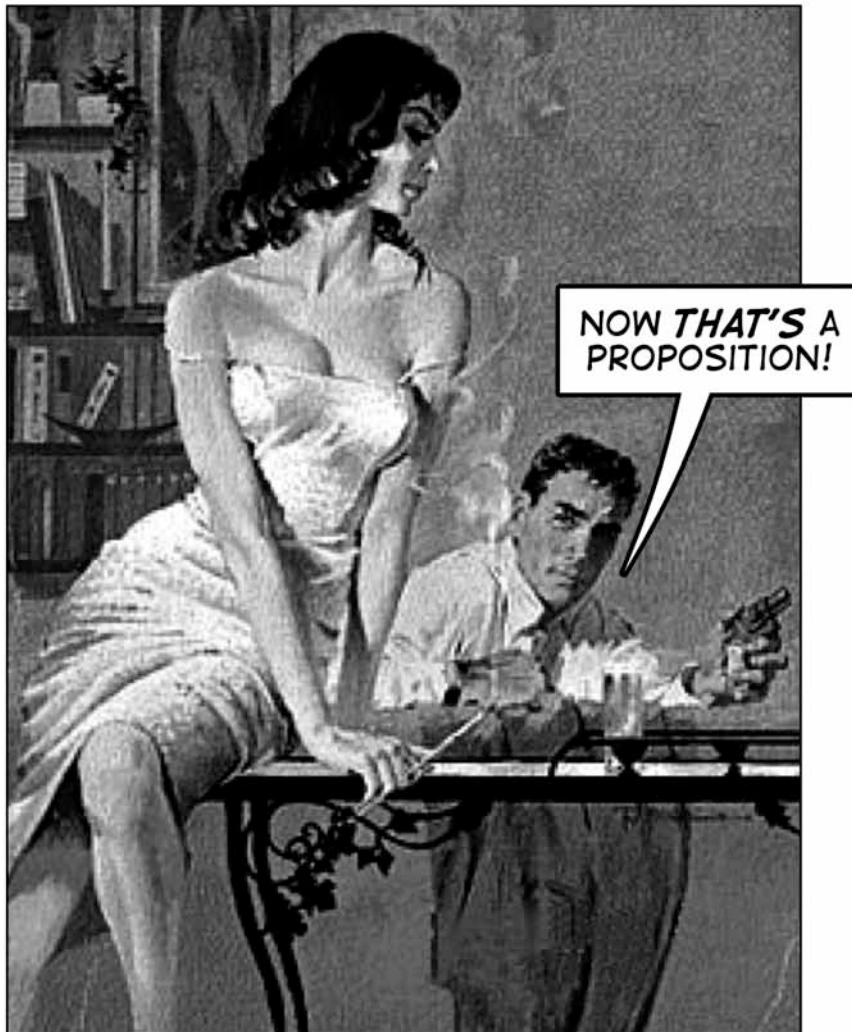


(20)

210 *John Krygier and Denis Wood*



**JUST BECAUSE THE REAL
WORLD CAN'T BE CAUGHT
BY A MAP DOESN'T MEAN
WE CAN'T MAP THE REAL
WORLD... AS MANY WAYS
AS WE WANT TO.**



212 *John Krygier and Denis Wood***Notes**

- 1 *Ce n'est pas le monde* is an experiment in rethinking maps and discourse about maps: a proposition about maps as propositions and about comic books as academic discourse in the form of a comic book of propositional maps. We created “Ce n'est pas le monde” in June 2006, with *Comic Life* software, presenting it at the Critical Geography Mini Conference (Columbus, Ohio) and the North American Cartographic Information Society (Madison, Wisconsin), both in October 2006, and the Geography and Humanities Symposium (Charlottesville, Virginia) in June 2007. Comments received helped us bring it to its current form, which we hope recalls the alternative comics that emerged in the 1960s (cf. Hatfield 2005) while at the same time profiting from Scott McCloud's (1993) comic-book reading of comics through the lens of C.S. Peirce's semiotics. In particular, McCloud exploits Peirce's understanding of icons, indices, and symbols (cf. Manning 1998).
- 2 We are far from the first to argue that maps are not representations but propositions (for example, see Acton 1938), or to allude to René Magritte's *Treachery of Images* (1928–9), his famed painting of a pipe inscribed, “Ceci n'est pas une pipe”. Our map here, “Boylan Heights, Raleigh, N.C.” (1908), by Boston landscape architects Kelsey and Guild, *literally* proposed Boylan Heights as a place, since before the building of the houses and the moving in of the residents, this map was the *sole* form in which Boylan Heights existed. As built, the neighbourhood realized this proposal. (Source: reproduced from the *Book of Maps 1885* (p. 114), Wake County Registry, North Carolina.)
- 3 “Boylan Heights Neighborhood Historic Preservation Plan” (1980) advances an alternative proposition, that of Boylan Heights as historic exemplar, ‘a classic early 20th century neighborhood’, worthy of having its character preserved.
- 4 The propositions advanced by “Boylan Heights Traffic Volume” (1981), from Denis Wood's unpublished *Dancing and Singing: A Narrative Atlas of Boylan Heights*, are that traffic flowed through Boylan Heights in the volumes indicated. The *argument* advanced was that the traffic played a profound role in the neighbourhood's life. The study of arguments was first given rigorous treatment in Aristotle's *Organon*. That Aristotle's syllogistic logic presupposed the more fundamental logic of propositions was established in the wake of Leibniz's work on the logical calculus, subsequently the calculus of propositions. We are attracted to the calculus of propositions because, as Bertrand Russell (1938) put it, ‘[a] proposition, we may say, is anything that is true or that is false’, and ‘[t]he propositional calculus is characterized by the fact that all its propositions have as hypothesis and as consequent the assertion of a material implication’. Certainly this is true of maps as well (see also Pospesil 1998).
- 5 J.H. Andrews (1996) collected 321 definitions of “map”, dating from 1649 to 1996, in preparation for his article “What was a map? The lexicographers reply”. We loaded them into the *Analys.icio.us* semantic cloud generator that produced the display of which we present a detail. The visual is often more effective than the verbal, a claim we make about both maps and comics (cf. Ginman and von Ungern-Sternberga 2003).
- 6 Here Andrews turned to three twentieth-century voices for definitions of the map. Max Eckert (1921) wrote the influential *Die Kartenwissenschaft Die Kartenwissenschaft*, but Andrews quoted from his more accessible paper, “On the nature of maps and map logic” (Eckert 1908), with the quoted remark on p. 345. Arthur Robinson was Eckert's principle intellectual heir, dominating cartography in the second half of the twentieth century as Eckert had the first. Andrews pulled the “map is a representation of the milieu” definition from

Robinson and Barbara Bartz Petchenik's (1976) *The Nature of Maps*, pp. 15–16. Andrews quoted Wood (1991) from his paper, "How maps work", the quotation on p. 66.

- 7 The sixth chapter of Pauline Rosenau's (1992) *Post-Modernism and the Social Sciences: Insights, Inroads and Intrusions* presents her understanding of the postmodern attack on representation that she fears makes modern social science impossible. A defender of traditional notions of representation, Rosenau presents her arguments as a "balanced appraisal". That her argument is fundamentally reactionary makes it the more pertinent for our purposes here, a succinct and encompassing survey of what people mean by representation. Our reactions to her suggestions draw on a range of sources including Richard Rorty's (1979) *Philosophy and the Mirror of Nature*; Nelson Goodman's (1978) *Ways of Worldmaking*; Michel Foucault's (1972) *The Archaeology of Knowledge*; and Paul Feyerabend's (1975) *Against Method*. We are also indebted to Andrew Pickering's (1995) *The Mangle of Practice: Time, Agency, and Science* and J.B. Harley's (2001) *The New Nature of Maps*.
- 8 Can an image of seduction suggest the seductive qualities of a map? Is a map *that* kind of proposition? Is it seductive? Seducing? Does the allure lie in the proposition? Or in the delusional desire for direct representation? Or both? Like "representation", "image" too implies some sort of correspondence to and mirroring of "reality" but refers to the visual more broadly. David Freedberg's (1989) *The Power of Images*, for example, deals with fine art, masks, photographs, illustrations, icons, sculpture, statuary and so on. James Elkins' (2001) *The Domain of Images* deals with fine art, pictographs, monograms, photographs, graphs, charts, indigenous paintings, schemata, money, seals, stamps, engineering drawings . . . and so on.
- 9 The text on these two pages abstracts a collage of the following texts: Wood's "Thinking about maps as talk instead of pictures", presented at the annual meeting of the National Council on Geographic Education in Philadelphia in 2002; Wood's "thinking about maps as propositions instead of pictures", presented at the annual meeting of the North American Cartographic Information Society in Jacksonville, Florida, in 2003; and the text, "Are maps TALK instead of pictures?" that Wood wrote for his, Ward Kaiser's and Bob Abramms' (2006) *Seeing Through Maps*. All draw on the work Wood had been doing since 2000 with John Fels on the propositional logic of the map, crystallized in Wood and Fels (2008), *The Natures of Maps*. We all – Wood, Fels and Krygier – recognize that the propositional logic of the map must be graphic, and Wood and Fels develop their "spatial/meaning calculus" graphically.
- 10 Visual rhetoric and comics studies seriously engage the visual in a manner appropriate to our thinking about maps as propositions (cf. Handa 2004). Visual rhetoricians ask questions such as how and why we argue visually, how we understand the myriad visual arguments aimed at us, and how we ourselves can become better at visual arguments (also see Lunsford and Ruszkiewicz 2006, especially their chapter on visual arguments). Visual rhetoric also makes strong links to semiotics and related approaches to understanding and interpreting diverse visual materials, art, advertising, movies, comic books, photographs, graphs, house plans and maps (cf. Hill and Helmers 2004). The idea of visual expressions as arguments, indeed as propositions, runs throughout the visual rhetoric literature. Comics studies are newer, but already an interdisciplinary field with conferences, journals (*The Comics Journal*, *International Journal of Comic Art*, *Image & Narrative*, and *ImageText*, the latter two online), academic centres (for example at Michigan State, Ohio State and Bowling Green State Universities), and reflective

214 *John Krygier and Denis Wood*

texts (in an already enormous literature numerous: Barker 1989; Carrier 2000; Gordon 1998; Heer and Worcester 2004; Inge 1990; Lefevre and Dierick 1998; Pustz 1999; Varnum and Gibbons 2001; Wright 2001. Academic acceptance of comics studies was in large part spurred on (and exemplified) by Scott McCloud's (1993) *Understanding Comics*, a comic book about comics as academically sound as it is approachable. McCloud's work in comic-book form (including his subsequent *Reinventing Comics* (2000) and *Making Comics* (2006)), established the fact that the comic form can work as intellectual discourse, a *visual* intellectual discourse. A case for geographers engaging comic books, at least at an interpretive level, has been made by Jason Dittmer (2005, 2007) who situates research on comic books as part of a broader interest in the visual components of popular culture. Our proposition about the comic as an appropriate form of academic discourse (like textual articles or verbal presentations) raises many questions. What is *wrong* with the visual that makes it so inappropriate as formal academic discourse? Why do scholars who study the visual (maps) express themselves primarily with text/words? Could a comic, a map or any other largely non-textual expression be considered appropriate as academic discourse (without the need to use notes, like these, to explain everything with words?)

- 11 Like the traffic map, the pumpkin map is from Wood's unpublished *Dancing and Singing: A Narrative Atlas of Boylan Heights*, although this particular map *has* been previously published, where the argument it advances is made explicit in a comparison with a map of some of the contents of the Boylan Heights neighbourhood newsletter (see also Harmon 2004: 104–7). You can also *hear* Wood make the argument in a radio interview with Ira Glass on Glass's *This American Life* (archived at <<http://www.thislife.org>>, selected maps from the Boylan Heights atlas can be found on the Making Maps blog: <<http://makingmaps.net>>).
- 12 Each map proposes a different Boylan Heights, which is precisely why the atlas Wood has been working on will contain over a hundred maps of the neighbourhood, though it would take thousands more to really begin to close in on something that, in the end, can never be caught.
- 13 Each map proposes a different “Kashmir”. Maps of disputed territories are very easy to accept as propositional maps because “everyone” acknowledges that boundaries and territory are human constructs.
- 14 Each map proposes a different region of caribou calving in the Arctic National Wildlife Refuge. A rogue US Government employee placed maps of alleged caribou calving areas in the Refuge on his website. The official US Government position was that caribou calving in the Refuge is not well understood, and should not be publicized. It also denied that the employee who created the maps was an expert on caribou calving. There is thus no “official” US map of caribou calving in the Refuge.
- 15 One of the reasons it's important to show these maps is because “hard science” is so often the redoubt of choice for those defending the representational character of maps. ‘Sure’, they say, ‘that may be true of national boundaries or in political squabbles, but those aren't scientific maps’. But “scientific” maps are not a whit less propositional. When Wood took geology in college isostatic rebound was the argument advanced for the uplift of mountains. A generation later this notion makes people smile indulgently, as at the foibles of a toddler. If you line maps up chronologically, you see continuous change in the way humans think about things. It's plain to us how . . . *wrong* our ancestors were, and how completely speculative, hypothetical, *propositional* their thinking was. Why do we imagine we're any different, imagine that we finally know how the world *really* is, when

all those before us have been so misguided? The map of the geosyncline is from O.D. von Engel's (1949: 341) *Geomorphology: Systematic and Regional*, where it is added in the caption that: '[t]he inferred extension seaward of the ancient land mass, Appalachia, is indicated by a dashed line'. The map of the Pangean orogen is from Eldridge Moores and Robert Twiss, *Tectonics* (1995: 357), where the caption calls it a '[m]ap of Appalachian-Caledonian-West African mountain system'.

- 16 Here eight propositions, from a multitude, about the range of the pin oak. See the exhaustive discussion of these range maps in Wood and Fels (2008: 146–63).
- 17 Here we enter the realm of the sign since, after all, the posting is constituted of a sign on the cartographic sign plane. We follow de Saussure, Barthes and Eco, among others, in taking a sign to be compounded of a signifier and a signified. This is Barthes's (1973: 39 and 41) definition of the linguistic sign *and* his definition of the semiological sign-function. Umberto Eco (1976: 48 and 49) defines a sign as 'an element of an *expression plane* conventionally correlated to one (or several) elements of a *content plane*', though he insists, '[p]roperly speaking there are not signs, but only sign-functions . . . realized when two *functives* (expression and content) enter into a mutual correlation'. Both derive their definitions directly from Ferdinand de Saussure's (1959: 67) *Course in General Linguistics* where he says, 'I call the combination of a concept and a sound-image a *sign*', and later, 'I propose to retain the word *sign* to designate the whole and to replace *concept* and *sound-image* respectively by *signified* and *signifier*'. The signified (concept, content, categorical type or whatever we're going to call it), resides in some sort of conceptual space, conceptual universe, content space, content plane or semantic field. This is what we're attempting to suggest here in this . . . *evocation* . . . of a semantic cloud. In order to evoke it, of course, we've had to marry the concepts (house of worship, worship, house) to . . . *marks*, and so in fact these are signs (in fact, actually, the pertinent expressive elements of signs), *not* concepts. We know this, but let's pretend. (For an interesting, and occasionally hilarious, account of Saussure's fate at the hands of Chomsky, Barthes, Derrida *et al.*, see Roy Harris's (2001) *Saussure and His Interpreters*, not that we buy into all of Harris's complaints either.)
- 18 Here we've attempted to evoke the plane of expression, the graphic potential, the field of marks, the domain of signifiers, or of visual-images (in describing the signifier as a "sound-image" Saussure revealed his focus on speech and language), more successfully we feel, since this realm is material to begin with.
- 19 Presumably these signs lead to some kind of action. Why else make signs, why else advance propositions, unless to affect the behaviour or state of another? Without this motivation it is hard to understand why people would make, publish and disseminate maps. The sign theorist who made this point most straightforwardly was Colin Cherry (1957: 306) who defined a sign as 'a transmission, or construct, by which one organism affects the behavior or state of another, in a communication situation'. Contrast his definition of a sign with those of Saussure, Barthes and Eco that we just gave. It's as though they came from different worlds, which in a way they did. Although written in the 1950s his text is wholly Peircean in spirit, and indeed his definition of a sign is a generalization of Peirce's, which Cherry (1957: 220) distinguishes, 'by the requirement that a sign must be capable of evoking responses which themselves must be capable of acting as signs for the same (object) designatum'. Peirce's sign formed an essential part of his idea of logic – his approach was philosophical not linguistic like de Saussure's – and a sign, he said, was 'something which stands to somebody for something in some respect or capacity' (from Hartshorne

216 *John Krygier and Denis Wood*

and Weiss (1931: 228), but see also pages 227, 231, 303 and 418). Peirce distinguished three triadic semiotic relations of significance, of which the second trichotomy of the sign consisted of his famous icon, index and symbol (which we referred to earlier), *ad infinitum* (almost literally, since Peirce identifies sixty-six classes of signs). No matter how deep we dive we won't be finding many points of contact between Peircean and Saussurian signs, nor between Cherry's somewhat individual transformation of the Peircean sign and the Saussurian sign. (In fact the only connection between Cherry and de Saussure that we can point to is their joint appearance in a few paragraphs in Roman Jakobson's (1961) *Linguistics and Communication Theory*, where he is explicitly attempting a wedding, in fact a shotgun wedding, which didn't take. It's too bad, because the Saussurian sign lacks the motivation of Cherry's sign, and Cherry's sign desperately needs de Saussure's clarifying and simplifying formalism. Meanwhile, analytic linguistic speech-act theorists such as J.L. Austin (1962) are in a third world altogether, which again is too bad, because Austin's efforts at understanding *what one is doing in saying something* – especially his concept of the performative (yes, it originated here) – would be so much more valuable if they ever made contact with communication theory and/or semiology. Understanding how maps work – and how they accomplish work – really requires Peirce's and Cherry's motivation, de Saussure's sign and Austin's performativity.

- 20 The differences in motivation behind these two additional propositions about Clintonville reflect a resident's critical perspective of the gentrifying, stereotypically progressive 1920s neighbourhood in the city of Columbus. The map of political contributions reveals that a *few* Republican donations are as large as *many* Democratic donations. This suggests the need for debate about campaign financing based on the imbalance of wealth. More to the point, the



Ce n'est pas le monde 217

map proposes that, within one of the most progressive neighbourhoods in Columbus, there are a handful of wealthy Republicans who may be held partially responsible, from a local perspective, for the diverse failures of the Bush administration. Stop by and ask them how they justify their financing of the administration. The map of black residents of Clintonville proposes that the progressive residents think about the fact that racial diversity in the neighbourhood is low. Clintonville is typical of progressive, gentrifying neighbourhoods, where the politics are loud but the “practical” worries about property values and schools – code words intimately tied to race – trump politics. Both maps actively propose action – as with the topographic map that precedes them, engaging neighbours about the effects of their political contributions and addressing the contradiction of politics and diversity.

References

- Acton, H.B. (1938) ‘Man-made truth’, *Mind*, NS 47(186): 145–58.
- Andrews, J.H. (1996) ‘What was a map? The lexicographers reply’, *Cartographica*, 33(4): 1–11.
- Austin, J.L. (1962) *How To Do Things With Words*, Oxford: Oxford University Press.
- Barker, M. (1989) *Comics: Ideology, Power, and the Critics*, New York: Manchester University Press.
- Barthes, R. (1973) *Elements of Semiology*, New York: Hill and Wang.
- Carrier, D. (2000) *The Aesthetics of Comics*, University Park, PA: Pennsylvania State University Press.
- Cherry C. (1957) *On Human Communication*, Cambridge, MA: MIT Press.
- de Saussure, F. (1959) *Course in General Linguistics*, New York: Philosophical Library.
- Dittmer, J. (2005) ‘Captain America’s empire: Reflections on identity, popular culture, and post-9/11 geopolitics’, *Annals of the Association of American Geographers*, 95(3): 626–43.
- Dittmer, J. (2007) ‘The tyranny of the serial: Popular geopolitics, the nation and comic book discourse’, *Antipode*, 39(2): 247–68.
- Eckert, M. (1908) ‘On the nature of maps and map logic’, *Bulletin of the American Geographical Society*, 40(6): 344–51.
- Eckert, M. (1921) *Die Kartenwissenschaft Die Kartenwissenschaft: Forschungen und Grundlagen zu einer Kartographie als Wissenschaft*, Berlin: W. De Gruyter.
- Eco, U. (1976) *A Theory of Semiotics*, Bloomington, IN: Indiana University Press.
- Elkins, J. (2001) *The Domain of Images*, Ithaca, NY: Cornell University Press.
- Feyerabend, P. (1975) *Against Method*, London: New Left Books.
- Foucault, M. (1972) *The Archaeology of Knowledge*, New York: Pantheon.
- Freedberg, D. (1989) *The Power of Images: Studies in the History and Theory of Response*, Chicago, IL: University of Chicago Press.
- Ginman, M. and von Ungern-Sternberga, S. (2003) ‘Cartoons as information’, *Journal of Information Science*, 29(1): 69–77.
- Goodman, N. (1978) *Ways of Worldmaking*, Indianapolis, IN: Hackett.
- Gordon, I. (1998) *Comic Strips and Consumer Culture, 1890–1945*, Washington DC: Smithsonian Institution Press.

218 *John Krygier and Denis Wood*

- Handa, C. (2004) *Visual Rhetoric in a Digital World*, Boston, MA: Bedford/St. Martins.
- Harley, J.B. (2001) *The New Nature of Maps*, Baltimore, MD: Johns Hopkins University Press.
- Harmon, K. (2004) *You Are Here: Personal Geographies and Other Maps of the Imagination*, New York: Princeton Architectural Press.
- Harris, R. (2001) *Saussure and His Interpreters*, New York: New York University Press.
- Hartshorne, C. and Weiss, P. (1931) *Collected Papers of Charles S. Peirce*, Cambridge, MA: Harvard University Press.
- Hatfield, C. (2005) *Alternative Comics: An Emerging Literature*, Jackson, MI: University Press of Mississippi.
- Heer, J. and Worcester, K. (2004) *Arguing Comics: Literary Masters on a Popular Medium*, Jackson, MI: University Press of Mississippi.
- Hill, C. and Helmers, M. (2004) *Defining Visual Rhetorics*, Mahwah, NJ: Lawrence Erlbaum.
- Inge, M. (1990) *Comics as Culture*, Jackson, MI: University Press of Mississippi.
- Jakobson, R. (1961) 'Linguistics and communication theory', in Jakobson, R. (ed.) *On the Structure of Language and Its Mathematical Aspects*, Providence, RI: American Mathematical Society, 245–52.
- Lefevre, P. and Dierick, C. (1998) *Forging a New Medium: The Comic Strip in the Nineteenth Century*, Brussels: VUB University Press.
- Lunsford, A. and Ruszkiewicz, J. (2006) *Everything Is an Argument*, 4th edn, Boston, MA: Bedford/St. Martins.
- McCloud, S. (1993) *Understanding Comics*, Northampton, MA: Kitchen Sink Press.
- McCloud, S. (2000) *Reinventing Comics*, New York: Paradox Press.
- McCloud, S. (2006) *Making Comics*, New York: Harper.
- Manning, A. (1998) 'Scott McCloud – understanding comics', *IEEE Transactions on Professional Communication*, 41: 60–9.
- Moore, E. and Twiss, R. (1995) *Tectonics*, New York: Freeman.
- Pickering, A. (1995) *The Mangle of Practice: Time, Agency, and Science*, Chicago, IL: University of Chicago Press.
- Pospesel, H. (1998) *Introduction to Logic: Propositional Logic*, Upper Saddle River, NJ: Prentice Hall.
- Pustz, M. (1999) *Comic Book Culture: Fanboys and True Believers*, Jackson, MI: University Press of Mississippi.
- Robinson, A.H. and Petchenik, B.B. (1976) *The Nature of Maps: Essays Toward Understanding Maps and Mapping*, Chicago, IL: University of Chicago Press.
- Rorty, R. (1979) *Philosophy and the Mirror of Nature*, Princeton, NJ: Princeton University Press.
- Rosenau, P. (1992) *Post-Modernism and the Social Sciences: Insights, Inroads, and Intrusions*, Princeton, NJ: Princeton University Press.
- Russell, B. (1938) *Principles of Mathematics*, 2nd edn, New York: Norton.
- Varnum, R. and Gibbons, C. (2001) *The Language of Comics: Word and Image*, Jackson, MI: University Press of Mississippi.
- von Engel, O.D. (1949) *Geomorphology: Systematic and Regional*, New York: Macmillan.

Ce n'est pas le monde 219

- Wood, D. (1991) 'How maps work', *Cartographica*, 29(3/4): 66–74.
- Wood, D. and Fels, J. (2008) *The Natures of Maps*, Chicago, IL: University of Chicago Press.
- Wood, D., Kaiser, W. and Abramms, B. (2006) *Seeing Through Maps: Many Ways to See the World*, Amherst, MA: ODT.
- Wright, B. (2001) *Comic Book Nation: The Transformation of Youth Culture in America*, Baltimore, MD: Johns Hopkins University Press.