Intellectual History and the Computational Turn

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According to David Armitage and Jo Guldi, large-scale computational analysis promises "a significant *return* to an older mode of historical analysis: the return of the *longue durée*."[1] The perspective offered by "distant reading" (Moretti) or "macroanalysis" (Jockers) makes visible the "quiet transformations" of intellectual history (Goldstone and Underwood) rather than the sharp breaks and "contrasts" that falsely separate one period from the next (Underwood).[2] "Big Data" pulls "Big History" in its uncharted wake, clearing away the obfuscating details of conventional scholarship to return focus to the historical big picture. But does attention to the big picture actually lead to new insight? Skeptics reply that the "broad outlines" of intellectual history are already visible, and they find proof in the off-putting banality of computational criticism's questions and conclusions.[3] Has the digital turn really opened new vistas, or has it just led a few scholars into an unfortunate if well-funded cul-de-sac? Peter de Bolla's *The Architecture of Concepts: The Historical Formation of Human Rights* (Fordham, 2013) answers this question, even if he never raises it himself. In a year that witnessed the publication of at least

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[1] David Armitage and Jo Guldi, "The Return of the *Longue Durée*: An Anglo-American Perspective," forthcoming (in French) in *Annales. Histoire, Sciences sociales* 69 (2014). Available in English at http://scholar.harvard.edu/files/armitage/files/rld_annales_revised_0.pdf.

[2] Franco Moretti, *Distant Reading* (London: Verso, 2013); Matthew L. Jockers, *Macroanalysis: Digital Methods & Literary History* (Urbana: University of Illinois Press, 2013); Andrew Goldstone and Ted Underwood, "The Quiet Transformations of Literary Studies: What Thirteen Thousand Scholars Could Tell Us," *New Literary History 45, 3 (Summer 2014): 359-84*; Ted Underwood, *Why Literary Periods Mattered: Historical Contrast and the Prestige of English Studies* (Stanford: Stanford University Press, 2013).

[3] For Underwood's retort to this common objection, see "We don't already understand the broad outlines of literary history." *The Stone and the Shell*. 8 February 2013. http://tedunderwood.com/2013/02/08/we-dont-already-know-the-broad-outlines-of-literary-history/

four other major works advocating the method, *Architecture of Concepts* provides the best argument yet for large-scale quantitative reading.[4]

However, defending his methodology is only one part of de Bolla's complicated thesis, which reaches in many directions and defies easy encapsulation. To understand what de Bolla says about quantitative history requires delving into the intricacies of his narrative. His book is motivated by debates underway in the field of international law that critique "rights" as a viable framework for promoting international justice (70-71). Particularly worrisome are "triumphalist" histories that portray modern human rights as an extension of Enlightenment discourse: "Contemporary human rights are supposed legitimated by a mistaken genealogy and built using an inadequate or inappropriate conceptual architecture" (72). His most immediate target is Lynn Hunt, whose work he dismissively footnotes several times (12, 48, 56, 245). The contrast with Hunt is telling. Hunt argues that eighteenth-century political theorists invented a concept of "universal rights" that, though never realized in practice, has cascaded through history with an inexorable political logic: once acknowledged, the universality of the human rights concept pushes against all attempts to circumscribe it.[5] De Bolla is less sanguine, especially about the international context, where human rights are sometimes invoked to excuse military adventurism in Third World politics. He worries that the subjective rhetoric of possession — of rights as something that individuals claim and hold in relation to the state — subverts attempts to render them truly universal, and his ambition is no less than to build a

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[4] In addition to Moretti, Jockers, and Underwood, mentioned above, see also Erez Aiden and Jean-Baptiste Michel, *Uncharted: Big Data as a Lens on Human Culture* (New York: Riverhead Books, 2013).

[5] Lynn Hunt, *Inventing Human Rights: A History* (New York: W.W. Norton & Company, 2007).

new concept of rights as such. In his conclusion, he grounds rights in a common, singular, unified collective, the human, to which all people will have access but none own, hold, or surrender. He finds glimpses of this concept in Paine's *Rights of Man*, but he believes the Enlightenment ideals of equality and justice will only be achieved if the discourse of rights is dislodged from the individual subject as its base.

This new concept of rights rests on a corresponding theory of conceptuality. Just like rights are (or should be) held outside individuals, so are concepts, which de Bolla defines as "cultural entities" that occupy "the common unshareable of culture" (5). For de Bolla, concepts aren't equivalent to the words people use to denote meanings, nor even the meanings that people might have in mind. Instead, they form the abstract substrate of language, connecting words in ideational structures that enable thought without necessarily rising to the level of consciousness or explicit expression. Concepts are affiliations among words, sometimes teased out logically but just as often left unspoken, and so they demand a different kind of analysis. Whereas intellectual histories usually proceed through chronologically arranged close readings, de Bolla's method attempts to get underneath the (misleading) history of how words were used to direct attention instead to concepts as they really are in an almost Platonic sense: "my aim is to parse the grammar of the concept of rights and to describe its distinctive architecture within the culture of the English language eighteenth century" (63). The "architecture" of a concept is its relationships to other concepts. Some operate simply as categories, while other, more abstract concepts make categories possible. "Minutes," "hours," and "days" function nominally to reify experience, while "time" operates axiomatically to make these simpler concepts thinkable (38-39).

For de Bolla, the question is whether "rights" function nominally, merely as a category of countable political entitlements, or whether they function axiomatically, as a presumed general condition of humanity. To tease this out, he performs a statistical analysis of terms that co-occur with "right" and "rights" in the ECCO database to show how those words' lexical networks changed over time. "The numerical data provide a first glimpse of … the architecture of conceptual forms," he argues. "These data help in the reconstruction of a conceptual network and enable one to begin plotting connectivities within networks" (9). For example, de Bolla traces co-occurrences of "rights," "privileges," and "liberties," showing that, in texts where all three words appear in close proximity, "rights" is by far the most likely to appear first. De Bolla interprets this to mean that rights function in a "load-bearing" capacity: "Rights uphold or safeguard privileges and liberties," he says (94). At the same time, surprising distinctions that emerge between the singular and plural form suggest fissures in the very concept itself: "right" is much more likely to be used with the possessive verb "have" while "rights" were more likely to appear with abstract, general words like "declaration," "preservation," and "defence" (121). At the beginning of the century, "rights" often co-occurred with institutional terms like "church," "king," and "parliament," but by the end of the century terms like "man," "nature," and "natural" came to predominate (128). "God" was less involved in rights, but rights were more likely to be "sacred" (128). Still, rights most often appeared with terms like "liberties" and "privileges," suggesting that rights-talk still tended to support the enjoyment of individual, exclusive benefits. Nonetheless, de Bolla finds a "conceptual form that would allow those who grasped it to think rights differently" (129). Looking ahead to Thomas Paine, de Bolla argues that "rights of man" promised to "turn rights

away from entitlements, in the possession of individuals, so that they could become aspirations, yet-to-be-realized potentialities held by the totality of human being on behalf of all persons" (129).

De Bolla's next two chapters interpret specific cases: the formation of American rights during the crisis of 1776 and the publication and reception of Paine's *Rights of Man*. Leading up to the war, colonists drew from natural law and biblical tradition to carve out rights that were specifically American. Their efforts culminated in the First Continental Congress, which was a kind of "petri dish within which the concept or concept*s* of rights were now going to be (newly) cultured" (182, original emphasis). Since the war, those concepts have come to serve a dual function; they provide "rubrics under which specific positive rights can be applied, defined, and defended" while also "upholding the legitimacy of rights claims in the originating moment that constructs the polity" (205). For de Bolla, the question then becomes whether these specific rights, as conceived in their role of managing and legitimizing power within a state, can be repurposed to support rights in a truly universal sense. To get at this question, de Bolla turns to criticisms of Thomas Paine's grammar: the pamphleteer's odd habit of mixing singular and plural abstract nouns, most importantly in the phrase "rights of man," bothered conservatively minded readers. These critics, unbeknownst to themselves, were "staging a battle over the grammar of a concept" (240). They doubted whether peoples, in their diversity, can properly be said to exist in a unified collective, "man" (252). As long as such abstractions remain in doubt, it's difficult to see how rights can be "imprescriptible," "unalienable," or even "natural." De Bolla's historical narrative ends by noting how these words experienced a brief

spike in their connection to "rights" in the years immediately following Paine's book but that this vogue had already died down by the century's end.

De Bolla's final return to quantitative analysis reminds readers that his narrative was also meant to demonstrate a new digital methodology. In some ways, de Bolla's computational methods seem tentative, even amateurish. Choosing to rely on manual searches of the ECCO database was a mistake: his findings are prone to transcription error and would be difficult or impossible to replicate systematically.[6] Rather than presenting his data in clear, well-designed charts like those of Moretti, Jockers, or Underwood, de Bolla offers only difficult-to-read tables of words and raw numbers.[7] However, de Bolla is very good at the much more difficult and complicated work of interpretation. In a recent critique of digital humanities, Adam Kirsch had this to say: "It is striking that digital tools, no matter how powerful, are themselves incapable of generating significant new ideas about the subject matter of humanistic study. They

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[6] The only way to verify de Bolla's data would be to recreate his work step-by-step, manually searching the database using his keywords. Even then it would be impossible to tell if discrepancies were the result of transcription errors or changes in the underlying data. I generally trust him to have transcribed his results accurately, but at least one error slipped through. He reports that the word "nature" appeared near the word "rights" in 4,157 documents published between 1780 and 1800. In the same table, he reports that "nature" appeared near "rights" 2,521 times during the same span (127). Which of these is correct, I do not know, nor do I know how many similar errors infect de Bolla's data. There could very well be many. Scholars hoping to use his theory of concepts to inform quantitative analyses in the future should not imitate his idiosyncratic research technique.

[7] Defending his decision not to perform simple, basic calculations that might render his data readable, de Bolla explains, "I am attempting to allow a view onto the rough and ready cultural terrain within which a concept's connections to a network were multiple and inconsistent. This complex and often messy picture would have been obscured had I not presented the data simply as raw numbers" (9). This rationalization is not persuasive. If the messy, contradictory richness of history requires a similarly messy presentation format, why synthesize one's ideas into a monograph at all? The decision to present only "raw data" is inexplicable except as *obscurantisme quantitatif*.

aggregate data, and they reveal patterns in the data, but to know what kinds of questions to ask about the data and its patterns requires a reader who is already well-versed in literature."[8] De Bolla certainly is such a reader. He is far more interested in arguing with scholars like Lynn Hunt about human rights than with Kirsch or Stanley Fish about computational hermeneutics. Whatever "terrible things" critics might say about digital humanists, none apply to de Bolla.[9]

Without polemicizing, *Architecture of Concepts* lays out a theory of conceptuality that has the potential to upend large-scale quantitative research. If concepts exist culturally as lexical networks rather than as expressions contained in individual texts, the whole debate between distant and close reading needs reframing. Conceptual history should be traceable using techniques like lexical mapping and supervised probabilistic topic modeling. I wish de Bolla had taken the time to learn about and discuss these procedures, even if only to explain the advantages of his more hands-on technique. Instead he writes, "I have every expectation that future scholars will … have access to deeper computational search protocols that will develop this new way of thinking concepts in history. If this book prompts that, it will have done its work splendidly" (10). For that to happen, though, someone needs to translate de Bolla's eccentric taxonomy into terms that can inform future work. I ask: What counts as evidence for conceptual change? What about conceptual change can be counted? *Architecture of Concepts* takes one stab at these questions but leaves them exhilaratingly unresolved.

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[8] Adam Kirsch, "The False Promise of the Digital Humanities," *The New Republic*, May 2, 2014, http://www.newrepublic.com/article/117428/limits-digital-humanities-adam-kirsch.

[9] Matthew Kirschenbaum, "What Is 'Digital Humanities,' and Why Are They Saying Such Terrible Things about It?" *differences* 25, 1 (May 2014): 46-63.