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A PROPOSITO DI « LE MONDE DANS UN CARNET. ALEXANDER VON HUMBOLDT EN ITALIE (1805) » DI MARIE-NOËLLE BOURGUET*

The Travel Notebook as an Archive of Practice in the Field

With the irruption of the digital age, the social sciences have been called upon in the last decade or so to develop theories and analytical tools to try to understand how the new technologies affect our societies in general and our «ways of knowing» in particular. Along with studies on the instruments and techniques of data management in contemporary sciences, historians have been paying increasing attention to regimes of information other from our own today. In the last ten to fifteen years, they have been asking new and intriguing questions about the seemingly trivial, day-to-day practices by which scholars in the past crafted, transmitted, and appropriated knowledge by means of tools as deceptively simple as those made of paper and ink. As historians have been telling us recently, far too little is still known about practitioners' everyday gestures for recording, accumulating, and managing data: how they scribbled (often useless) notes, compiled vertiginous registers of observations and measurements and handled them to their best, engaged with a rapidly growing number of books, combined empiricism and erudition in complex ways, or built up massive archives. At a time frequently announced (yet again) as that of «the death of paper», studies on the role of «paper technologies» in the history of knowledge are shedding some much-needed light on the cultural attitudes informing the ways in which scientists dealt with information over time.¹

Marie-Noëlle Bourguet's *Le monde dans un carnet. Alexander von Humboldt en Italie (1805)* constitutes an important contribution to the booming field of the history of record-keeping and -management practices in the sciences. As a renowned expert in eighteenth- and nineteenth-century natural history travel and instrumental knowledge, Bourguet is particularly well-placed to tackle a towering figure of romantic-era geophysics who was as bewitched by precision measurements as he was obsessive in keeping minute track of them on paper: the long-celebrated Prussian traveler, naturalist, and instrument-lover Alexander von Humboldt (1769-1859).² Bourguet's most recent book, however, is not so much about the German celebrity himself as it is about a deceptively arid and speechless object of his production: an unnoticeable – and long unnoticed – octavo-sized, cardboard-bound, hundred-odd-page notebook bearing the title of *Tagebuch II/VI*.

The document lies nowadays on the shelves of the Staatsbibliothek in Berlin among Humboldt's travel diaries with his observations from around the globe, from the Amazonian rainforest to the Russian steppe. Inscribed with the scholar's often-unintelligible upward-slanted writing and alternating between the German and French languages and scripts (*Kurrentschrift* and cursive), the notebook studied by Bourguet is something of a Cinderella among Humboldt's sweeping manuscript production. To begin with, it traces an episode that pales in comparison to the naturalist's famed

* M.-N. Bourguet, *Le monde dans un carnet. Alexander von Humboldt en Italie (1805)*, Paris 2017.

Spanish American expedition around 1800. The *Tagebuch II/VI* registers Humboldt's five-month journey across the Italian peninsula – from Mont Cenis in Savoy down to Vesuvius then north again through Rome – which he undertook in 1805 in the company of several other intellectual personalities of the early nineteenth century: a young Franz August O'Etzel, the French chemist Joseph-Louis Gay-Lussac, and the geologist Leopold von Buch (one of Humboldt's former classmates at the Freiberg School of Mines). But, most importantly perhaps, the notebook is a kind of source that does not usually whip up great excitement among historians. In the *Tagebuch II/VI*, as Bourguet states early in the book (11), «nul récit de l'itinéraire suivi, ni des rencontres ou des anecdotes survenues en chemin ; nulle description des paysages traversés ni des villes visitées ; nulle évocation de la lumière, de la beauté des monuments, de la nostalgie des ruines». In sharp contrast to the acutely sensitive Stendhal, perhaps the best-known traveler in Italy from Humboldt's generation and for whom «un journal de voyage doit être plein de sensations», Humboldt's little notebook more often than not appears as despairingly technical and laconic. «Au fil des pages, ce ne sont que chiffres, calculs, citations, références» (12): for previous historians of Humboldt's life and work, like Charles Minguet, travel journals such as this were «hard to exploit», when not plainly and simply «unusable».³

This might well constitute this work's timeliest contribution to current historiography. As Bourguet stresses throughout the book, the *Tagebuch II/VI* is a «banal carnet de notes», deemed unmemorable not only because of its contents (on a short, seemingly unremarkable journey through Italy) and form (largely unrelated numbers, quotations, and notes), but also because of its destiny: the notes from the Italian journey made the object of no publication whatsoever, apart from three relatively minor articles. But it is perhaps this banality that makes the notebook such a pertinent source for studying the day-to-day, down-to-earth practices of traveling naturalists around 1800. Bourguet's approach to Humboldt through the lens of his working notes is in line with the now well-established praxeological and material turn in the history of knowledge. But by tackling the making of natural knowledge through such a «speechless» source, the book constitutes a salutary reminder that the approach to past sciences through practices has not always translated into a full integration of sources that have all too often been secondary in the writing of the history of science: manuscript materials, for instance, and non-narrative ones in particular.

Le monde dans un carnet contributes to demonstrate scribal culture's unquestionable endurance among European savants long after the diffusion of printing across Europe in the early Renaissance. Ground-breaking work such as that by Harold Love, Peter Beal, and Fernando Bouza has shown that the so-called «impact of print» was actually far less impactful than we once thought, that print culture never fully displaced manuscript communication, and that both media often coexisted in one way or another.⁴ It was not until fairly recently, however, that historians of science began paying explicit and sustained attention to scholars' intense engagement with the manuscript medium. The world of scribal practices in the sciences, they have been telling us, goes well beyond epistolary communication and narrative journals. Hand-made paper materials, often destined by their producers for private use or a limited

circulation, appear as a privileged trace of savants' day-to-day learned gestures, but also as a powerful reminder that not the least of these was taking and keeping notes.⁵ This book indicates productive paths to address working manuscripts, often of a non-narrative nature such as the *Tagebuch II/VI*, as archives of scholarly practice.

In Bourguet's hands, the *Tagebuch II/VI* becomes a historical clue to two different yet closely related issues: Humboldt's Italian peregrination – especially its social context – and the scholarly practices that the naturalist deployed along the way. Structured on the basis of the source, the book is divided in seven chapters, each dealing with a specific facet of Humboldt's journey, from his instrumental observations on mountaintops and the lava-bursting slopes of Vesuvius to his perusing of Roman collections and libraries. Particularly original are the chapters that draw from Bourguet's own vast expertise in late-eighteenth-century and early-nineteenth-century instrumental science. There is a lot of skill involved in the interpretation of Humboldt's sketchy notes, not only because of their linguistic and paleographical diversity, but also because, as the author notes, «ces pages couvertes de chiffres sont d'un abord aride pour un lecteur peu familier de matières comme l'observation astronomique, la géodésie ou le magnétisme terrestre» (69). There are remarkable passages where the author reconstructs Humboldt's barometric or eudiometric measurements from a few rough numeric scribbles (69-74, 118-121). In this sense, the *Tagebuch II/VI* appears not so much as a travel journal – a genre more fit to Humboldt's American diaries, where the scholar actively put down on paper and reflected on his experiences along the way – but rather as a «working notebook» («un carnet de travail»). As such, the notebook fascinatingly stands, for Bourguet, as one among the panoply of instrumental devices that accompanied Humboldt in his peregrinations through the field. We now know well that the Prussian was all but a light traveler: chronometers, barometers, dip circles, compasses, and eudiometers jangled in his heavy baggage and shaped a form of natural knowledge guided by the ideal of precision and finding epistemic certainty in the instrumental measurement of phenomena. Paper and ink were part of toolkit of this sort of naturalists, as Bourguet demonstrates. Note-taking and record-keeping constituted an integral part of instrumental observation; more importantly perhaps, they offer a unique entry into what were, after all, gestures that left little trace for historians to get their teeth into. For those seeking to study precision observation in the field, the problem is, as the author notes, that «toute mesure faite en voyage se resume finalement à quelques chiffres jetés sur une page» (62).

By following closely Humboldt's scholarly practices as they are recorded on the pages of the *Tagebuch II/VI*, Bourguet fundamentally contributes to blurring the boundaries that have traditionally defined the history of eighteenth- and nineteenth-century science. An important one is that between empiricism and erudition, in other words between first-hand observations and the handling and digesting of textual information. Chapter six, for instance, focuses on the pages written during Humboldt's discontinued three-month stay in Rome, which amount to more than half of the notebook (around forty pages). While his field observations often took the form of long lists of numbers, Humboldt's Roman days translated into «notes de lecture, transcriptions de manuscrits, observations faites lors d'une visite de musée, extraits de

livres ou résumés de conversations avec [Georg] Zoëga», a Danish antiquarian settled in Rome with whom Humboldt discussed about classical antiquities at length (180). Probably the best example of how inextricably entwined antiquarian and naturalist intellectual preoccupations were in the work of Humboldt is to be found in the mineralogical research he carried out in dazzling Roman collections of antiquities collected from all over the Mediterranean basin. Halfway between the antiquarian tradition and the emerging field of mineralogy, Humboldt's work on stones from ancient sculptures is good evidence that the line between the field and the cabinet, too, as far from clear-cut at the time.

The pages of the *Tagebuch II/VI* reveal other ways in which erudite practices of textual management and the culture of empiricism interacted. Bourguet shows, for instance, how notetaking, and excerpting from other texts in particular, functioned as a propaedeutic to fieldwork. This is crucially important, because it hints not only at the fact that reading and observation were equally evanescent practices that often left no trace other than the sketchy notes Bourguet sets out to study here, but also at how both were actually tightly intertwined in the work of the scholar. Among his notes, Humboldt compiled excerpts on the use and trustfulness of the instruments he carried along, quotations about the exactness of measurements in the field, and, fundamentally, the quantitative results other travelers achieved on the same spots in which he set up his instruments as a substitute to observational replication. Moreover, Humboldt transcribed fragments from von Buch's own travel journal, which stands for Bourguet as an example of the collective dimension of working notes: at the very least, the example points to the capacity of manuscripts to circulate qua manuscripts (135-137) – a crucial but little-studied aspect of the history of the natural sciences.

The focus on the *Tagebuch II/VI* alone, while permitting Bourguet to remain close to her source, also raises several questions, first and foremost that of the relationship of the scribal gestures captured in the notebook with both individual notetaking habits and widely shared practices of record-keeping. For those of us whose expertise on Humboldt's work leaves much to be desired, it is difficult to determine the extent to which the Italian journal is representative of the scholar's general paper techniques, a point that seems important even assuming that his methods for managing information through manuscripts changed over his lifetime. This is admittedly a vast task that would go well beyond the scope of a single book – ongoing work on Humboldt's American journals, which alone amount to almost 4,000 pages, will shed much needed light on this aspect.⁶

I think, however, that it is worth asking the question for two reasons. First, it raises the different but related problem of authorship and auctorality through manuscript. The decades around 1800 coincide with what Roger Chartier has identified as a «nouvel ordre du discours qui, depuis la mi-XVIII^e siècle, associe les catégories d'individualité, d'originalité et de propriété».⁷ In Humboldt's time, then, these three notions had crystallized around the fetishization of the author's hand and of autograph manuscripts, especially in literature – famous authors' papers from the nineteenth century have actually been the bedrock of genetic criticism, perhaps the literary approach that has paid most attention to authorial manuscripts. In Humboldt's time,

authors were well aware of this new order of discourse, inciting some of them to become their own archivists: the preoccupation of Goethe – one of Humboldt's most famous acquaintances – to ensure the conservation of his papers witness, as Chartier notes, an intimate relationship with autograph writing closely related to the new value attached to the author's hand.⁸

In this sense, the story briefly retraced by Bourguet of the material transformation and transmission of the *Tagebuch II/VI*, from Humboldt's own manipulations at his return to Berlin to the present time, is illuminating (12-17). His papers had a hectic history that brought them from the family castle in Tegel to Moscow at the end of World War II, then to Unter den Linden with their restitution to the GDR, to Potsdamerstraße after 1989, to Tegel again, and finally back to Postdamerstraße. More important from a material point of view, as Bourguet stresses, is the fact that Humboldt himself revisited his Italian notebook several times in the latter decades of his life, adding annotations and corrections and presumably, as the author suggests, making cuts and reorganizations. The most important manipulation probably was the one by which Humboldt had all his *Reisetagebücher* bound in leather, hence infusing a certain uniformity to a disparate collection and inscribing the Italian notebook within the ensemble of the American journals. Bourguet interprets this as an attempt by the scholar to «éviter la perte et la dispersion» of his travel notes, as well as a sign of his comings and goings between his different notebooks in his daily cabinet work. But given Humboldt's perception of his own celebrity as an author – as Bourguet shows in passing, this was already taking shape among Parisian and Roman elites since his return from the Americas – and the fact that he bound his notebooks together at the end of his life, could this not be seen as a sort of symbolic fossilization of his travel archive, a fetishization of either his autograph manuscripts, the act of first-hand instrumental observation in the field, or both? Asking such a question might help us reach a better understanding of the role that manuscript materials played in the construction of Humboldt's authorship and a certain kind of naturalist's persona around 1800 – and thus help us counter the view of early modern and modern authorship as constructed exclusively through print.

This brings me to my second point about the place that the *Tagebuch II/VI* occupies in relation to broader scribal practices. As it becomes clear in the book, Humboldt's «souci compulsif» for taking notes shaped the image he attempted to transmit to posterity: different portraits made of him during his lifetime showed him pen and paper in hand, whether in the middle of an Amazonian rainforest or in his Berlin cabinet (24).⁹ But Humboldt's individual scribbling habits raise the question of the extent to which these followed either contemporary or long-established patterns of notetaking, record-keeping, and information management. To what extent were those portraits contributing to shape not only the personal image Humboldt aspired to give of himself, but also a partly new scientific persona?

Humboldt, no doubt, was an exceptional figure on many accounts. That fact, however, makes it all the more interesting to know the extent to which his techniques for record-keeping by hand, as instanced in the Italian journal, were shared at the time – broadly or within a circumscribed community such as, say, that of the practitioners of an instrumental approach to nature – and how they were adopted by Humboldt and,

potentially, his contemporaries from information-management practices transmitted over generations. Early on in the book, Bourguet affirms that «que Humboldt ait emporté dans son bagage de quoi prendre des notes en chemin n'a rien pour surprendre, tant la tenue d'un journal est alors une discipline obligée pour tout voyageur, qui plus est homme de science» (10). Keeping track of one's observations in the field might well have been particularly crucial for practitioners of natural knowledge at the time, but the way actors do so is not obvious: it results from conventions and cultural habits that can and need to be located in time and space.

Bourguet uses some of the bookish notes in the *Tagebuch II/VI* to retrace one such convention: the long-lived tradition of keeping commonplace books, which, in some fascinating pages on Humboldt's erudite practices, she relates to the scholar's compilation of reading excerpts during his Roman stay (180-182). The relationship of Humboldt's scribal gestures to specific conventions remains less clear for the case, central in the book, of instrumental observation. It actually seems that the lack of evocative descriptions of personal experience stands as a specificity of the Italian journal, especially when compared to the vivid descriptions filling the thousands of pages to which the American journals amount. But Bourguet's remarkable reconstruction of Humboldt's instrumental observations across the Italian peninsula from the sketchy notes of his journal seem to point to the fact that a good deal of his notetaking strategies derived from a specific approach to nature – one based on the disciplined and self-regulated measurement of physical phenomena by means of precision devices – of which Humboldt, then as now, was an – perhaps *the* – outstanding exponent.¹⁰ The question of the consolidation of instrumental science around 1800 has been at the core of Bourguet's vast and original work: along with Christian Licoppe and H. Otto Sibum, she set out in 2002 precisely to explore «how did it happen that, in the course of the eighteenth century, it became a requisite for naturalist-travellers to carry instruments and make measurements along the way, as well as to collect and classify samples».¹¹ It would be reasonable to assume, then, that the historicity of this mode of investigation of nature is also that of the record-keeping practices into which it translated. Were the scribal conventions showcased in the *Tagebuch II/VI* specific to this way of studying nature? There is no obvious way of recording data on paper, not even quantitative data. Through the methods used by Humboldt and fellow scholars, we could gain a better picture of the lights and shadows of the instrumental enterprise: its reliance on scribal practices from beyond the field of natural inquiry (state administration, antiquarianism and textual erudition) or its role in attempting to establish assent about the proper way of recording device-measured observations, for instance. Approaching scribal practices within the emerging community of instrumental naturalists would also help us better understand the specificity of the field and travel, which is at the core of *Le monde dans un carnet*, in contrast to, for instance, laboratory notebooks.

Another aspect is that of the transmission of scribal practices across or within certain communities. Ann Blair's and Matthew D. Eddy's work on Renaissance Paris and the Scottish Enlightenment, respectively, has shown that notetaking skills were largely transmitted through education and shaped within specific contexts and in

relation to particular needs, cultural habits, and information management routines.¹² We could ask, then, where and how did Humboldt acquire the scribal techniques deployed in the *Tagebuch II/VI*. Bourguet notes in passing that Humboldt honed his skills at keeping an observational journal during his studies in Jena and Gotha, where he was trained also in the gestures of astronomical observation: he forged, then and there, «une discipline d'écriture qui ne devait plus le quitter au cours de ses voyages» (55). The point is not developed further, unfortunately, but it indicates a promising avenue to try to establish how much, or little, of an innovator Humboldt was as far as scribal practices are concerned. His education as a mine engineer at the Freiberg School of Mines, where he trained under Abraham Gottlob Werner in field observation practices, could provide some further interesting elements to try to answer this question. Founded in Saxony – one of the most important mining regions of Europe – in 1765 as an answer to the impact of the Seven Years' War on the industry, the *Bergakademie* soon became a crucial intellectual site for the sciences of the earth. More importantly, the School of Mines is a prime instance of the close ties that linked the mining business in German lands with the «sciences of state administration»: as William Clark has argued, the figure of the scholar and that of the civil servant became deeply intertwined in late-eighteenth- and early-nineteenth-century Germany.¹³ Engineers were part of the state machinery – Humboldt himself, after graduating from the *Bergakademie* in 1792, was recruited as a mine inspector by the Prussian government – and, as such, became expert record-keepers who fed the states' increasing appetite for bureaucratic paperwork accumulation. Could then Humboldt's training as a mine engineer and employment by the state as a scholarly expert during his youth then help shed some light on the scribal strategies he used in the *Tagebuch II/VI* for laying observations down on paper?

By raising these questions, my intention is to suggest that the *Tagebuch II/VI* could perhaps be fruitfully used to interrogate not only the instrumental and epistemic practices of which those notes are the result and the trace – often the only trace, as Bourguet pertinently stresses –, but also widely-shared and/or long-established scribal techniques for notetaking and record keeping that could well have been specific to neither Humboldt nor the instrumental approach to nature around 1800. Indeed, the work of contextualization operated by the author regards the scholarly practices of which the notes are the footprint rather than the act of manuscript record-keeping itself. In fact, the question of notetaking in the natural sciences around 1800 often fades from Bourguet's account in favor of the episodes of the travel for which the notes of the *Tagebuch II/VI* stand. Admittedly, this aspect is partly extraneous to Bourguet's own intention in her book: her explicit goal is to execute a «lecture 'interne'» of the document, that is, to attend to Humboldt's Italian notes in an attempt to «replicate» his experiences during his journey (245), which she does in an exemplary way.

The questions I am raising about the scribal culture – or, rather, cultures – to which Humboldt's scriptural techniques in the Italian notebook could be related – be they proper to the individual, to a community of practitioners, or to long-established traditions of textual management – would, in any case, constitute an extension rather than a qualification of Bourguet's argument. In dwelling on them, no doubt, I betray my own research interests, but I do also seek to stress that, although it might well be based

on a circumscribed case study, *Le monde dans un carnet* poses what to my eyes are highly important questions for the history of science and indicates fruitful directions for future research. In particular, it reminds us of the vast sea of scribal practices lying under the well-studied stormy waters of print culture in the sciences of the past. More importantly, Bourguet offers a masterful example of how to reconstruct the scholarly practices recorded on the surface of mostly non-narrative texts – on how to read sources often deemed unusable.

¹ Diagnosis on «the death of paper» have a long history that stretches back to the end of the nineteenth century at least: see A. LUDOVICO, *Post-Digital Print: The Mutation of Publishing since 1894*, Eindhoven 2012.

² Among Bourguet's work, see *La collecte du monde: voyages et histoire naturelle (fin XVII^e-début XIX^e siècle)*, in C. BLANCKAERT (ed.), *Le Muséum au premier siècle de son histoire*, Paris 1997, pp. 163-196; with C. LICOPPE, *Voyages, mesures et instruments: une nouvelle expérience du monde au siècle des Lumières*, in «Annales. Histoire, Sciences Sociales» 52/5 (1997), pp. 1115-1151; with C. LICOPPE and H. O. SIBUM (eds.), *Instruments, Travel, and Science: Itineraries of Precision from the Seventeenth to the Twentieth Century*, London and New York 2002; *Measurable Difference: Botany, Climate and the Gardener's Thermometer in Eighteenth-Century Paris*, in L. SCHIEBINGER and C. SWAN (eds.), *Colonial Botany: Science, Commerce, and Politics in the Early Modern World*, Philadelphia 2005, pp. 270-286; with P.-Y. LACOUR, *Les mondes naturalists: Europe (1530-1802)*, in *Histoire des sciences et des savoirs*, vol. 1: S. VAN DAMME (ed.), *De la Renaissance aux Lumières*, Paris 2015, pp. 255-281.

³ C. MINGUET, *Alexandre de Humboldt, historien et géographe de l'Amérique espagnole*, Paris 1969, p. 106, quoted in BOURGUET, *Le monde dans un carnet*, p. 22.

⁴ H. LOVE, *Scribal Publication in Seventeenth-Century England*, Amherst 1993; P. BEAL, *In Praise of Scribes: Manuscripts and their Makers in Seventeenth-Century England*, Oxford 1998; F. BOUZA, *Corre manuscrito. Una historia cultural del Siglo de Oro*, Madrid 2001.

⁵ One of the main catalysts of this new attention to scholars' scribal practices has been the work of A. BLAIR, especially her *Too Much To Know: Managing Scholarly Information Before the Modern Age*, New Haven 2010. The term «paper technology» was coined by A. TE HEESSEN in *The Notebook: A Paper Technology*, in B. LATOUR and P. WEIBEL (eds.), *Making Things Public: Atmospheres of Democracy*, Cambridge MA 2005, pp. 582-589. Early modernists have been particularly active in this history of scholarly scribal practices: on natural knowledge practitioners in particular, see the recent work by E. YALE, *Sociable Knowledge: Natural History and the Nation in Early Modern Britain*, Philadelphia 2016; R. RAPHAEL, *Reading Galileo: Scribal Technologies and the Two New Sciences*, Baltimore, MD 2017; and E. LEONG, *Recipes and Everyday Knowledge: Medicine, Science, and the Household in Early Modern England*, Chicago 2018. Bourguet has been an innovative contributor to this wave of studies on scholarly scribal practices: see especially her *A Portable World: The Notebooks of European Travellers (Eighteenth to Nineteenth Centuries)*, «Intellectual History Review» 20/3 (2010), pp. 377-400.

⁶ Humboldt's American travel journals are the object of O. Ette's collective project «Amerikanisches Reisetagebücher: Genealogie, Chronologie und Epistemologie» at the Staatsbibliothek in Berlin and the University of Potsdam.

⁷ R. CHARTIER, *La main de l'auteur et l'esprit de l'imprimeur. XVI^e-XVIII^e siècle*, Paris 2016, pp. 45-70.

⁸ CHARTIER, *La main de l'auteur*, p. 64.

⁹ M.-N. BOURGUET, *La fabrique du savoir. Essai sur les carnets de voyage d'Alexander von Humboldt*, «Humboldt im Netz», 7/13 (2004), pp. 17-33.

¹⁰ To the point that the historian Susan Faye Cannon coined the term «Humboldtian science» to define such an approach: S. F. CANNON, *Humboldtian Science*, in ID., *Science in Culture: The Early Victorian Period*, New York 1978, pp. 73-100. See also the work of Michael Dettelbach, for example his *Humboldtian Science*, in N. JARDINE, J. A. SECORD, and E. C. SPARY (eds.), *Cultures of Natural History*, Cambridge 1996, pp. 287-304.

¹¹ BOURGUET, LICOPPE, SIBUM, *Instruments, Travel, and Science*, p. 96.

¹² A. BLAIR, *Ovidius Methodizatus: the Metamorphoses of Ovid in a Sixteenth-Century Paris Collège*, «History of Universities», 9 (1990), pp. 73-118, and M. D. EDDY, *The Interactive Notebook: How Students Learned to Keep Notes during the Scottish Enlightenment*, «Book History», 19/1 (2016), pp. 86-131.

¹³ W. CLARK, *Academic Charisma and the Origins of Research University*, Chicago 2007, especially part two for the place of the university scholar within states' bureaucratic rationality.