

(excerpt from *Governing Green Laboratories*, S. Silbey 8/03)

### The last aristocracy

To provide a context for the observations I will describe, I would like to emphasize an issue that is at the heart of the scientific and legal problem. I noted above that scientists, as a professional occupation, enjoy an unusual degree of autonomy in our society. I mentioned their remove from ordinary affairs, intractability to external control, and most importantly, their claim to an independent, non-social, amoral/objective form of epistemological authority. Add to this their place in any conventional stratification scheme: they will be found among the highest ranks in prestige, and way above the middling ranks in terms of income. Synthesizing the various descriptors and criteria, I have begun to think about scientists - in the context of modern, liberal, democratic society - as our last aristocracy. I have not yet decided whether I think this is facetious or serious; I do find it ironic. If science was one of the more powerful agents in producing modern, secular, liberal societies, scientists nonetheless retain much of the privilege and power that had been wrenched from the displaced aristocracy. Of course, I use the term aristocracy metaphorically, and am making no argument about the connections between aristocracy and property, at least not at this moment.<sup>1</sup> I mean only to emphasize that the democratizing spirit, which totally infuses modern science, has created for research scientists a sphere of well guarded autonomy and privilege that places them in a class apart. Let me give you one example from my fieldwork.

*I heard a story the other day about a brouhaha in the Merrill building<sup>2</sup> that is under renovation. They have been reconstructing the building piece meal, about one third or one fourth of it at a time. In the cost-benefit analysis they did during the design phase, they decided it was easier and cheaper to keep most of the labs functioning the building while the renovations take place. Apparently, there was no suitable space for the labs to move to. So, they have been moving in with each other and reorganizing themselves every five or six months as one section after another of the*

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<sup>1</sup> Of course, the notion of scientists as aristocracy is not entirely ironic or far-fetched. Among important work in the history of science, Steven Shapin's stands out as an account of how scientific authority was constructed in the 17th century by borrowing from already-existing norms about who gives trustworthy, unbiased testimony. Shapin has shown that during this early modern period, the new scientific societies such as the Royal Society in London explicitly fashioned themselves as collections of "gentlemen." Shapin, 1994. *A Social History of Truth*. Chicago: University of Chicago Press. Shapin's point is that in this period, many of what were/are called natural philosophers really were of gentlemanly status, members of the landed gentry, Robert Boyle being the quintessential example. Shapin's more recent work has been exploring how the notion of being "radically other" was reduced over time, between the 17th and 20th centuries. He is trying to understand when it became more common to assume that scientists were no a different, perhaps higher, breed altogether from ordinary people. Steven Shapin, "The philosopher and the chicken: on the dietetics of disembodied knowledge" in *Science Incarnate: Historical Embodiments of Natural Knowledge*, 1998, Christopher Lawrence and Steven Shapin (eds.), Chicago: University of Chicago press, pp. 21-50. Others also examine how scientists roles, identities, and personae have changed over time and across space, and how a particular persona can come to see natural within a given setting, see Lorraine Daston (ed.), "Scientific Personae" in *Science in Context* (forthcoming). See also David Kaiser, 2002, "Making Tools Travel: Pedagogy and the Transfer of Skills in Postwar Theoretical Physics," Paper for the Workshop "Training Scientists, Crafting Science: Putting Pedagogy on the Map for Science Studies," MIT, January 2002, and paper on suburbanization of physics.

<sup>2</sup> All proper names and identifiers are pseudonyms.

*building becomes complete. It has been hell, according to everyone with whom I speak, although they are clearly enthusiastic about the new facilities.*

*So, the crisis of last week - there appear to be weekly crises concerning this construction and the attendant moves - developed when a member of the faculty began shouting at the construction workers and facilities people. There had been some such incidents before and behavioral rules had been promulgated by the Dean to eliminate these outbursts. They had become costly because each time one of the faculty or the chair shouted at or scolded one of the workers, there was a job action. The provocations varied from timing of some event that now interfered with an experiment or some other commitment, to changes in the design that were not followed, or anticipations and expectations of the faculty member that turned out to be unfounded and wrong. They had lost time and workers which cost even more time and money. Costs were escalating. So, the University decided to hire an intermediary between the faculty and the construction workers, hoping that this would create a smoother process with fewer unanticipated and unnecessary costs. No faculty member was to speak to any of the construction personnel. All communications, whether design changes to the laboratories or the movement of a piece of equipment, was to go through the new mediating manager.*

*On this occasion, one of the labs was being moved to a new location. They were on day five of the move. Although this was going according to the construction schedule and timing, the faculty member had apparently thought that it would take a day, perhaps two, but had certainly not anticipated five. As the week progressed, he became increasingly agitated, anxious and without confidence that the job was being done right. It was taking too long. The equipment, the materials, were not being handled correctly. There would be losses of samples, accidents with the chemicals, and time was wasting. This would take even more time away from research, all this incompetence. The outburst was loud and shocking.*

*The story spread quickly by word of mouth about "the incident of JB's move." People began to gossip about it. I was told the story by a faculty member and then checked it out. That person was told the story by one of the University's senior facilities people. The facilities person said that he was not surprised. "You just had to see that lab," he said. "Everything was so neat, so organized, everything labeled, everything in its place. It was extraordinary. Lots of them aren't like that, you know, lots of mess. I guess they figure it out. And he was there all the time, day and night hovering over the place, nothing happened in that place without him. I wasn't surprised that he went berserk. It was like they were mishandling his children."*

When I heard this story, I thought it an interesting example of the contrast in the positions of the staff and the faculty, and reminded me, perhaps hyperbolically, of the master-servant relation which was what prompted the conceit of scientists as the last aristocracy. The facilities person understood the meaning of this move for the scientist, understood the importance of the jars, and

samples, and equipment, the labels and the time spent organizing and running the lab. He could offer a reasonable account for what appeared as an unreasoned and uncivil outburst. He recognized the idiosyncrasies of this particular scientist while attending to scientists' needs generally. That the professor did not take similar notice of the needs and work habits of the staff and construction workers (re)produces the structural inequality between the master and servant. The master knows the master's world but the servant must know her own world as well as that of the master. Without pushing this too far, the point is clear.<sup>3</sup> The scientist is understood because his needs are the work of the staff. The scientist enjoys the privilege of being taken care of. The extent of this entitlement -- of being taken care of financially, physically, spatially, emotionally - indexes both the deference that individual scientists enjoy and the resources scientists as a class command.

Ironically, one of the signal markers of this class privilege is that scientists are not treated as members of a category or class, but as unique, individual personalities. The irony is compounded when we think that the product that underwrites this nonetheless collective indulgence of scientists is the creation of universal, general knowledge which is as often as not coded with an individual name. The staff may be "the staff," "the facilities people," "the construction workers," but that staff knows that just as there is Planck's constant, the Shroedinger equation, the Born Haber cycle, or Lewis symbols, this is Hiller's lab, Soyer's group, Jones' territory. The distinction between material resources and immaterial knowledge is collapsed as one is merely the route to the other in a transformative genealogy. Thus, if scientists enjoy the privilege of being cared for, it is that as a class they can command individual care and attention. After centuries of liberalizing democratization, it is certainly rare to find this kind of routinized license outside the realms of cultural celebrity, great wealth, or political officialdom, and as such, I suggest, might be usefully analogized to an aristocracy.

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<sup>3</sup> David Kaiser reminds me in a private communication that within research universities, scientists and engineers are among the most hierarchical. He says that "they see social and power hierarchies literally everyday in the structure and organization of their labs: head PI, team of post-docs, gaggle of graduate students, undergraduate student researchers, etc. - who reports to whom, who does what, are all spelled out more explicitly than in non-laboratory fields. Obviously there is plenty of hierarchy within today's humanities and social sciences, but there are not always enacted on a daily basis, reflected in organization charts and lab-management protocols, the way they are in most lab fields. So, this seems to reinforce the notion of scientist-as-aristocrat: not only do they have their special "manors" (the lab space, often known by their own last name), but they also have a highly differentiated and specific social structure working beneath them." This is an insight that we are pursuing in our analysis of how the different social organization of laboratories may influence the variation in the ways in which scientists respond to the new EHS organization and system.