Editorial:
Science, Technology and (Let's Not Forget) Society in Africa

Gerard Ralphs

This editorial was written at the sixth meeting of the World Archaeological Congress (WAC), held this year at University College Dublin, Ireland. WAC was formed almost single-handedly by Peter Ucko, an archaeologist of international standing, in 1986 in response to a split – both moral and ethical – between Ucko and the IUSPP (the International Union of Prehistoric and Protohistoric Sciences) at a meeting of the IUSPP in Southampton.[1] As physical anthropologist Michael Day rightly noted at the first Peter Ucko memorial lecture on 30 June 2008: at Southampton there was a "clash of principles."

The nature of the split is significant because it involved South Africa and South African archaeologists directly. The 1980s, as those from South Africa will know, were turbulent, violent years; the middle-passage (after the youth of Soweto rioted in 1976) leading the anti-apartheid movement toward the moment of its liberation, and the final dissolution of apartheid in 1994. International sanctions were possibly at their most intense in the 1980s, as pressure grew from the outside to see the release of Nelson Mandela and other key political prisoners from Robben Island, as well as the to secure the unbanning of their political parties. What sanctions also meant was the prohibition of sports teams from participating on the international stage, as well as the proscription of South Africa scholars, in certain fields and disciplines, from attending international conferences.

What Ucko did back in 1986 was to reinforce a generally accepted international condemnation of apartheid by refusing to meet with South African archaeologists, a position which ran against the official position of the IUSPP – to allow the principle of academic freedom to prevail. Yet how was this a revolutionary position for archaeology in a South African and international context? Well, in the first place, at least three years before, "the Southern African Association of Archaeologists...declined to pass a motion condemning apartheid on the grounds that politics had no place in archaeology."[2] In the second place, as a discipline deeply rooted in colonialism, the formation of which was closely mirrored by the development and entrenchment of Eurocentric scientific knowledges which posited some human beings as more or less advanced than others (as somehow better than others), archaeology had excluded entire universes of experience as a direct result of its narrow focus, its limited purview, its blindness.

It would then be presumptuous to say that it was only apartheid that was on Ucko's mind as WAC came into being. In fact, what Ucko was responding to in archaeology was a growing sense of alienation in a discipline that was then

heading into the hard science of the New Archaeology.[3] What of Indigenous archaeologies, of Third World archaeologies, of archaeologies that defied dominant modes of thought and praxis? These were the sorts of questions and concerns behind Ucko's bold move in Southampton; the sorts of concerns based on a notion of inclusivity and radical critique that would serve to revive a discipline in desperate need of a fresh approach. Was academic freedom superseded by the need to take a principled stand on an unjust regime? Was archaeology, ironically, at risk of falling into antiquity? For Ucko the answer to these questions was a plain and simple yes.

Indeed, since Southampton, WAC has grown remarkably as an organisation. At WAC-6, delegates, including First Nations representatives, from 74 countries descended on the University College Dublin to deliberate on topics ranging from the colonisation of ancient Greece to the need for an epistemic decolonisation of archaeological thought and practice, from the contested construction of a motorway near Tara (an ancient site of heritage in Ireland) to the construction and articulation of Irish national identity in the context of a rapid influx of African immigrants, from the archaeology of homelessness to the production of historical knowledge and the politics of atonement in South Africa, and from the archaeology of war to the political crisis in Zimbabwe. The list of abstracts in the thick blue conference handbook was seemingly endless. Perhaps the key lesson that we might draw from the (contested) formation and continued work of the Congress is this: that science does not happen outside of society, in a vacuum as it were. Science 'is' (as opposed to 'ought to be'); and is, we know all too well, is political.

Points of departure
This issue of *postamble* departs from previous issues of the journal in at least two ways. Issue 4.1 contains the usual series of peer-reviewed academic submissions, as well as two non-peer reviewed book reviews; but it also contains a conversational interview between two of *postamble*'s editors and a photographic essay produced by another of the journal's editors. The latter submissions, the interview and the photo essay, fall in line with one of *postamble*'s key objectives as a multi-disciplinary journal, which is to publish 'alternative' forms of research presentation – that is, other, different, new, modalities which we may not as easily ascribe to the work of the academic, the scholar, the student, but which may nonetheless be the carriers of important insights, even knowledge. I will elaborate on the content of our submissions below; however, in what sense can this issue of *postamble* also be distinguished from those that populate our online archive?

This issue differs in significantly from past issues in that it is focussed on particular subject area or thematic – Science, Technology and Society in Africa – and is a point of departure about which I would like to make a number of conceptual remarks. The African continent is a rapidly transforming place in the twenty first century as the range of scientific innovations and technological interventions find themselves lodged (if not imposed) in local contexts. The impacts that cellular telephone technologies, for example, have had on the lives

of the local African populations, both rural and urban, cannot be underestimated. In fact, they are altogether profound. Take Mozambique or Ghana as examples. Not only have such technologies warped time-space boundaries for individuals and communities living in geographically distinct regions of the countries, they have also led to: new architectural aesthetics and public advertising arrangements; unconventional modes of money transfer, bargaining, and procurement; as well as new forms of 'development' and social cohesion (see Butcher and Ayensu in this issue). As one of globalisation's key penny pushers, cellular telephone technologies across the continent more broadly are shaping the landscape in radical ways, as well as redefining notions of the self and other.

Of course, since cellular telephones as cultural object are polysemic – invested with multiple meanings in multiple contexts – it is impossible to write them off as good or bad, as mere products of the global marketplace, or as revolutionary techno-agents. They are of course all of these things, and much more. And since it is not always helpful or necessary to criticise things like cellular telephones in terms of such binaries – think of the depth and complexity of the debate around the OLPC (One Laptop Per Child) initiative – we are increasingly compelled to adjust our conceptual lenses to the new and evolving complexities that such objects bring to the *lived experiences* of individuals and communities living in local African contexts. Over and above ICT in particular, cybercafés, online social networking tools (like Facebook and MySpace), Wikipedia, YouTube, and the pervasiveness of Google and Skype, should also fall within our purview, amongst other key shifts in the way the Internet has transformed the landscapes of knowledge and power the world over.

So, simply put, questions of science and technology are not only questions of laboratories, chips, the latest software, and what's hot on the (black) market, or even questions of neo-imperialism and dependency; they are fundamentally questions of the actual place of science and technology in society at large to which there may be many answers. The "in Africa" suffix in the title of this themed issue of *postamble* adds another layer of complexity, both historical and contemporary, as many African states, populations, and political leaders attempt to make and re-make their countries and identities in the context of: the formation of post-independence democracies and the period of anti-colonial sovereignty; increased upward mobility for political elites in times of rampant poverty, war and battles for territory and high office; a rising global demand for biofuel production; failed elections; the massification of higher education; increasingly dense urban living; the development of new genres of thought and praxis and creolised modes of linguistic expression; a set of ever-multiplying aesthetic combinations, fashions, architectures and styles; and the increasingly global lifeways of individuals as African populations move east, south, north and west. The world may be getting smaller, for some; but it is getting bigger, and far more complex, for many others.

At the level of policy and international relations, a number of interventions are shaping the formulation and implementation of science and technology policy across the continent. Early February 2008 saw the kick-off meeting of CAAST-

Net (the Network for the Coordination and Advancement of Science and Technology Cooperation) in Entebbe, Uganda.[4] A European Commission-funded project born out of the Africa-EU Strategic Partnership endorsed at the Lisbon Summit in December 2007, CAAST-Net aims to foster multi-level dialogue between various stakeholders – researchers, policymakers, ministries of science and technology, multiple publics – around the potential of science and technology to contribute to the achievement of the Millennium Development Goals in Africa, but also the advancement of the continent over a longer period. Between 5 and 7 October 2008, at the Kyoto International Conference Centre in Japan, participants at a conference entitled Science and Technology in Society will further deliberate on what it means for science and technology to work *for* society (rather than the other way around). And there are many other similar types of networks, projects and multi-lateral and bilateral meetings ongoing that may merit our attention.

Yet the challenge remains for dialogues such as these, especially those establishing Africa-EU partnerships, to focus critically on how science and technology will benefit and grow the capacities of the continent and its human populations, either directly or indirectly, rather than simply be a way for improved international cooperation to be proclaimed, but not acted upon. In other words, we should not forget about the final two components of our neat formulation, Science, Technology and Society in Africa. For if we do, we will have failed Africa where we could easily have done otherwise.

Finally, where does this particular issue fit at the level of scholarship and the academy? There is a growing literature in the field of Science and Technology Studies (STS). Perhaps the strongest current within the STS literature has been the argument that science is as politically situated and as much a cultural construct as art or architecture. As Nikolas Rose writes:

> Empiricist histories of science often mark the inception of the scientific conscience at a point when those who would understand the world ceased to consult the books of Aristotle and began to consult the 'book of nature.' This ingenious fable is appealing but misleading. If scientists read the book of nature it is only because they first transformed nature into a book. Science, that is to say, not only entails techniques which render phenomenon visible, so that they may form the focus of conceptualization, but also requires devices which represent the phenomena to be accounted for, which turn these phenomena into an appropriate form for analysis.[5]

Other elements of the emerging field of STS are equally interesting and cutting edge. For example, the performative element of science has been noted and described by critical scholars of science: in a sense, as much as performers on a theatre stage, so too do scientists dress up and perform science even if done under the guise of procedural and methodological objectivity. Issues of trust, transparency, legal 'black boxes,' and even the issue of secrecy in science have also been key areas of investigation.[6] Critical discourses on mental health and the

classification of psychological 'disorders' have also emerged within and outside of the discipline of psychology to challenge the pathologisation of the human, past and present. A part of this discursive project has also been to explore the exclusion of alternative forms of knowledge and understanding in relation to the much-disputed subject of what causes and constitutes 'illness,' not least 'mental illness.' In Africa, STS debates have amongst other key coordinates also turned fiercely around the question of Indigenous knowledge, HIV Aids, and the professionalisation of traditional knowledge practices – like traditional healing – as well as the contestations around Indigenous intellectual property rights and issues of ownership.[7] Indeed, the field is expanding rapidly the continent and the world over. Yet what appears most striking to me is the sense in which the field is proliferating at a time when the very idea of knowledge itself is disputed. Who knows what and how? What is knowledge and whose agenda does it serve? Who is known, and who are the knowers? And so on. Undoubtedly, it will be questions of epistemology, but also ontology, which will structure critical research in STS, which will steer debates in STS in new directions.

Themes and content
As early as June 2007, the editorial collective were engaged in discussions about the possibility of producing this issue. As mentioned, this issue represents new and unchartered territory for the journal, which thus far has focussed largely on questions of culture, identity and representation – in the fields of literature, film, gender studies, and public culture. The articles in this issue are varied and cut across a range of subject areas; yet all articles fall within the broadly conceptualised theme of the Science, Technology and Society in Africa. It would have been futile to exclude articles based on an instrumentalist conception of 'this is science and technology, and this is not.' On the contrary, I argue there is extra-ordinary richness to be found in the no go zones, the borderlands, the intersections, between a critical humanities discourse, shall we say, and a discourse of science; a discourse of meanings and values versus a discourse of hard facts. All the articles in this issue fall within this liminal zone – a strategic and partly idiosyncratic positioning which I hope will reveal more than some may think it will obscure.

In particular, Natasha Himmelman explores the meanings and constructions of madness in colonial discourse through the lens of Chinua Achebe's novel *Arrow of God.* Siona O'Connell traverses the politics of representation in the context of a series of ongoing inter-disciplinary debates in South Africa around southern Africa's pre-colonial human populations, repatriation, the colonial archive, and photography. On the back of Pippa Skotnes' *Miscast*, O'Connell argues against the violence of representation yet reveals the possibility for new forms of discourse to emerge in and through a (re)reading of the colonial archive. In his paper, Dion Nkomo investigates the politics of language and translation in the context of the dictionary and its historical construction in southern Africa particularly. For Nkomo, the dictionary is as much a site of knowledge as it is a site of cultural power and colonial and post-colonial representation. Patient Rambe takes issue with a dominant reading of blogs as spaces of radical democratic practice by exploring the contradictions of online authorship in terms

of notions such as trust and belief. In a paper that uses the work of Habermas to theorise the new social movement, Liezl Coetzee draws attention to the ways in which social movements proliferate and work through the Internet. Coetzee draws on the work of Habermas in theory, and the activities of the Treatment Action Campaign (TAC). Yet the question remains, as Coetzee intimates: does the Internet provide the final solution for the key networking, lobbying and information gathering and dissemination work in the context of unequal access to bandwidth and the desktop computer?

In one of two submissions which draw on two different modes of research presentation, Emma O'Shaughnessy visually documents some of the ways in which inner city residents of Johannesburg are responding to the blackouts spurned by the recent wave of power shortages experienced in South Africa. In the second submission, Grace Ayensu and Siân Butcher discuss a chapter from a new anthology of works by renowned Ghanaian scientist, Edward S. Ayensu. The main catch of this piece is this: while Grace is intimately related to Edward Ayensu, who is her father, Grace's critical humanities and gender hermeneutics means that what dad says doesn't always mean that dad's right.

If Himmelman and O'Connell grapple with questions of colonial discourse, the scientific gaze, and the eugenics movement, then Gregory Solik steers us through similar terrain in his thoughtful review of Saul Dubow's most recent book, *A Commonwealth of Knowledge: Science, Sensibility and White South Africa, 1820-2000* (2006). Our final submission in this issue is a second book review. Here, Emma O'Shaughnessy has produced a short but stimulating account of Jonny Steinberg's excellent new book, *Three Letter Plague* (2008) – a book well worth reading for Steinberg's original approach and insights into the complex landscapes of hope and despair, loss and resilience, power and vulnerability, the pandemic has given rise to.

A new website, a new space of engagement
This issue of the journal also represents an opportunity to officially launch *postamble*'s new website. The new website is especially significant for *postamble* because it has been conceptualised to provide a new space of intellectual engagement for both the collective as well as for *postamble*'s readership, to consider questions of knowledge production and scholarship in Africa. I would therefore like to invite our readers to participate in making the website a dynamic space, a space of (new) ideas, of thoughts, and of expression. Sign up, sign in. Your presence is welcome.

Finally, since this issue of *postamble* has been a long time in the making, it would not be complete without recourse to a few words of thanks to a number of individuals, projects and organisations. In the first place, the production of this issue was supported by a generous grant from Dr. Nick Shepherd of the Centre for African Studies and the bi-lateral South Africa-Switzerland project on Science, Technology and Society for which we are extremely grateful. We are also grateful to the Centre for African Studies and the Harry Oppenheimer Committee for agreeing to support *postamble* going forward, both financially

and institutionally. The new partnership will undoubtedly serve to strengthen the intellectual activities of both *postamble* and the Centre. Then, a big word of thanks is due to Sachin Ranchod and Nishant Lalla for their partnership and hard work in designing and implementing the new *postamble* website. Lastly, I would like to thank all members of editorial collective, new and old, for their hard work on the production of this issue. Your efforts have been tremendous. And if this issue catches your attention then be sure to look out for the next – (Re)reading the African Urban Space which will be edited by the incoming managing editor, Emma O'Shaughnessy.

Notes

[1] N. Shepherd, "From 'One World Archaeology' to One World, Many Archaeologies," in *Archaeologies*, 1 (1) 2005, p. 2. See also N. Shepherd, "WAC at a Crossroads," in *Archaeologies* 4 (1) 2008: 1-3.

[2] Shepherd, "From 'One World Archaeology,'" p. 2.

[3] N. Shepherd, "Heading South, Looking North: Why We Need a Post-Colonial Archaeology," in *Public Archaeology* 3 2004, p. 250.

[4] See www.caast-net.org.

[5] N. Rose, "Calculable Minds and Manageable Individuals," in N. Rose, *History of the Human Sciences* 1 (2) 1988, p. 189.

[6] See S. Jasanoff, "Transparency in Public Science: Purposes, Reasons, Limits', in *Law and Contemporary Problems*," 69 (21) 2006: 22-45.

[7] The work of Lesley Green, from the Department of Social Anthropology at the University of Cape Town, is a case in point. See L. J. F. Green, "'Indigenous Knowledge' and 'Science': Reframing the Debate on Knowledge Diversity," in *Archaeologies* 4 (1) 2008: 144-163 and "The Indigenous Knowledge Systems Policy of 2004: Challenges for South African Universities," in *Social Dynamics* 33 (1) 2007: 130-154. The work of Annie Devenish and Steven Robins has also been important in this regard.