

POSTCOLONIAL TECHNOPOLITICS: REFLECTIONS ON THE INDIAN EXPERIENCE

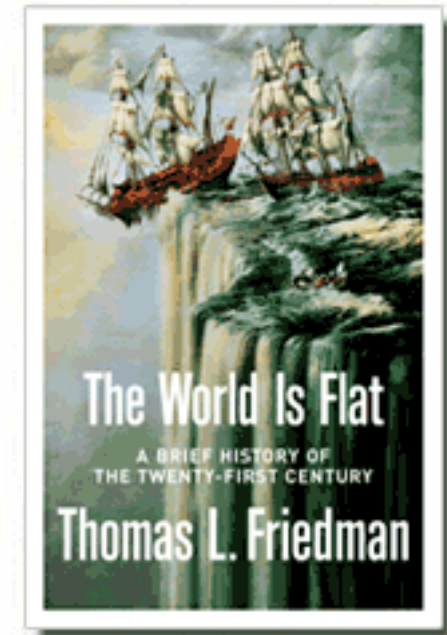
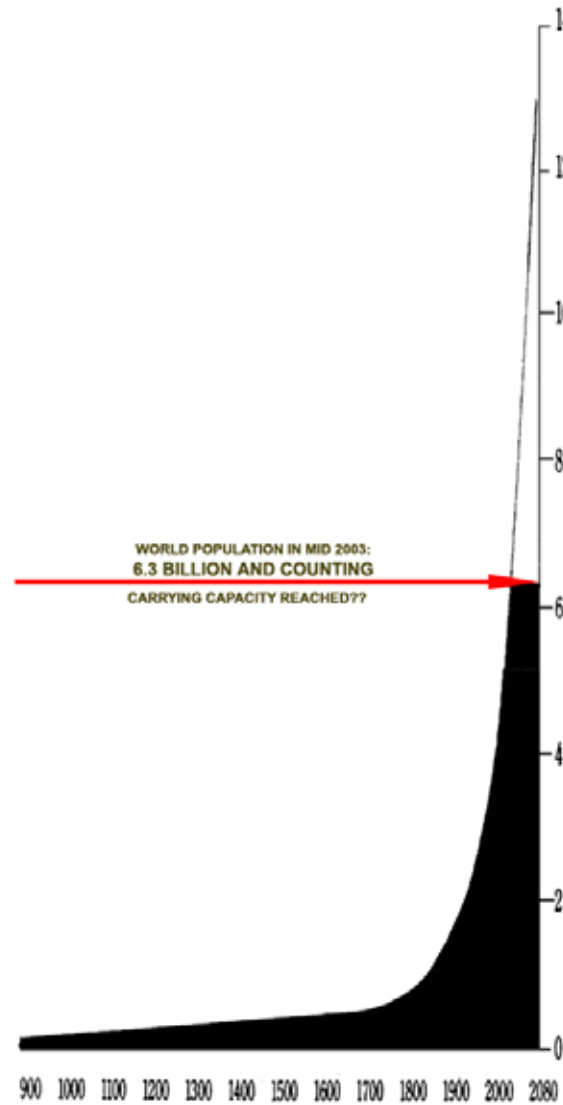
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When, how, why, and in whose interests did western representations of the Third World, and particularly India, morph into postmodern technoscience? Taking on Lyotard, subaltern studies, and champions of the brand-saturated techno-capitalism of post-liberalization India, Kavita Philip embarks on a project to read technoscience as text, political practice and geopolitical strategy, rather than simplistically as technocratic code.

(I) STINKING HOT: In which we explore western representations of the technoscientific and of the Third World

The images to the right are both visions of the 21st century. Each was produced in an encounter between a Western traveler and a post-colonial technoscientific landscape. The first is from a book by Paul Ehrlich in 1968, the second from Thomas Friedman in 2005. Both invoke the 21st century as a limit. The first, imagining it as an apocalyptic limit, marked by a panicked double interrogative (“CARRYING CAPACITY REACHED??”), predicts that the earth’s carrying capacity will be reached by 2002 (an anxious reference to Malthusian theories of population and resource scarcity). The second represents ships falling off the edge of a flat earth (a tongue-in-cheek allusion to the pre-Ptolemaic belief in a flat earth),



and imagines, analogously, nineteenth-century beliefs in distance and culture as naïve illusions that have been rendered obsolete by network technologies. This spanning of the globe is a new technoscientific truth – one that can be leveraged by savvy business strategists.

Paul Ehrlich and Thomas Friedman are American academics, liberal social scientists who made casual visits to India. (I say “casual” in the sense that these were not research trips shaped by long scholarly study, or historical and linguistic training). They each open their best-selling, world-shaping books with their personal, touristic, experience of India. Why are these touristic images so compelling to their readership, and what changed between 1968

and 2006, to make the respective books, and their “Indian” framings, so divergent?

Consider these passages, from page 1 of each book:

Paul Ehrlich, *The Population Bomb* (1968):

I have understood the population explosion intellectually for a long time. I came to understand it emotionally one stinking hot night in Delhi a few years ago. My wife and daughter and I were returning to our hotel in an ancient taxi. The seats were hopping with fleas. The only functional gear was third. As we crawled through the city, we entered a crowded slum area. The temperature was well over 100, and the air was a haze of dust and smoke. The streets seemed alive with people. People eating, people washing, people sleeping. People visiting, arguing, and screaming. People thrusting their hands through the taxi window, begging. People defecating and urinating. People clinging to buses. People herding animals. People, people, people, people All three of us were, frankly, frightened ... [but] the problems of Delhi and Calcutta are our problems too We must all learn to identify with the plight of our less fortunate fellows on spaceship Earth if we are to help both them and ourselves to survive.

Thomas Friedman, *The World is Flat* (2005):

“Aim at either Microsoft or IBM.” I was standing on the first tee at the KGA Golf Club in downtown Bangalore, in southern India, when my playing partner pointed at two shiny glass-and-steel buildings off in the distance, just behind the first green. The Goldman Sachs building wasn’t done yet HP and Texas Instruments had their offices on the

back nine, along the tenth hole The tee markers were from Epson, the printer company, and one of our caddies was wearing a hat from 3M. Outside, some of the traffic signs were also sponsored by Texas Instruments, and the Pizza Hut billboard on the way over showed a steaming pizza, under the headline “Gigabites of Taste!”

.... Columbus was searching for hardware – precious metals, silk, and spices – the sources of wealth in his day. I was searching for software, brainpower, complex algorithms, knowledge workers, call centers, transmission protocols, break-throughs in optical engineering – the sources of wealth in our day.

Much of late 20th century global political economy pivots, unnoticed, on histories of science and technology. If we look back at de-colonization and post-colonial development through the lens of histories of technoscience, some aspects come into clearer focus.

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The West’s scientific concern with India in the 1970s was fixated on an apparently out-of-control Third World population. But the scholarship grabbing the headlines wasn’t Amartya Sen’s careful work on the relationship of female literacy to national fertility rates – despite the fact that the “Kerala model” was already being widely cited even in neoclassical economics. (This was a rich scholarly conversation co-eval with Ehrlich’s population work, and strongly influenced by traditions of Fabian socialism, feminist economics, and the geopolitics of non-alignment.) It

was Ehrlich’s alarmist call to population control that articulated the scholarly rationale for population anxieties. Ehrlich’s book resonated not just with any social scientists, but with a strategically important State security apparatus and its enabling scholarly apparatus.

At mid century, with the wave of de-colonizations and the accompanying complexes of nationalist, anti-capitalist and non-alignment movements in ex-colonial nations, a growing US fear of the Third World expressed itself in a technoscientific anxiety over population growth. Sheer numbers of people (“people, people, people, people”) were seen as a reason for “why they hate us” – this seemed clearer than the explanations offered by the complex histories of settlement, control, exploitation and resistance with whose legacies post-colonial societies were wrestling.

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First-Third world geopolitics in the 1970s drew on assumptions from the science of population, on the calculus of demographics and an equilibrium-equation of danger and fear (“we were all three frightened”, Ehrlich says, invoking the spectre of 1857, white women and children threatened by the proximity of native bodies), leavened by pity for the “plight of the less fortunate” (this liberal framing effectively serving as a public relations exercise to elicit support for aid programs that required population control for the transfer of development dollars).

The 1990s bring an apparent reversal. The reversal, too, is undergirded by a technoscientific ratio-

nale. If the complex cultural and political challenges of first-third world decolonization and post-colonial relations were short-circuited in the 1970s by the science of population (promising a technocratic cut through the social messiness, delivering an equation among the variables fertility, GDP, carrying capacity, linking human bodies and agrarian productivity), the complexities of the 1990s are rendered again in technocratic form, but this time via the measures of computational networked communication.

Many histories of institutional and academic development have linked mid-century population studies to State Department mandates, as well as funding from well-connected non-profits (such as the Rockefeller Foundation, Population Council, business networks, and State imperatives combined efforts to develop departments of demography, population). Few histories of the contemporary moment have linked State department imperatives to the study of networks, but similar connections can be seen in the work of John Arquilla and David Ronfeldt (http://www.rand.org/pubs/monograph_reports/MR1382/), as well as in the blogs of netwar observers like John Robb (see:<http://globalguerrillas.typepad.com/globalguerrillas/> and John Robb's book, *Brave New War: The Next Stage of Terrorism and the End of Globalization*).

In the 1990s, we note how brand-names undergird, and punctuate, the euphoria in Friedman's happy narrative, while Ehlich's fear-filled 1968 narratives drew literally on colonial tropes of heat and dust.



We see here a transition from colonial modernity, but to what? The image of the ideal Indian seems to shift from the liberal population manager to the neo-liberalized individual, producing and consuming under the sign of the commodity. The Third World comes of age, then, as it becomes an equal citizen in the age of globalization, earning subjectivity under the sign of the brand. Nevertheless, commodification is not the whole story here.

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The expansion of the capacities of the autonomous self acting subject of modernity is accompanied by the discarding of those without subjectivity. Under modernity, these were the “people without history;” in the tele-connected post-modern, they appear, in Lyotard's narrative, to remain superfluous and expendable. While excess and superfluity are indeed population metaphors that bleed over from the modern to post-modern, and colonial to post-colonial contexts, their scope and significance have shifted.

I invoke Lyotard here to show the centrality of this concept to even metropolitan imaginations of the postmodern condition. This issue has, of course, been taken up in much greater philosophical detail by Achille Mbembe (2001, 2003), and extended into a set of questions that have since defined the cutting edge of postcolonial theory. Those discussions, although not explicit here, define the stakes of the task at hand, that is, rethinking the technological and the post-colonial together. In the contradictory space of post-liberalization India, it is popularly believed that this “third-world” State has “grown out of” the need to directly exercise its sovereign powers of life and death. But we only need to follow social movements and activist writing (such as work by Arundhati Roy) to see that sovereign destructive violence is displaced and translated, but in no way a relic of the past.

Today we pay attention to the ways in which new geographies of unevenness and under-development characterize tele-connected global spaces. Numerous scholars of urban development after modernity

showed how the equation between countryside and cities, and between first and third world, have been transformed since the late 1970s. Postmodern political economies draw on remotely tele-connected urban centers in a transnational daisy-chain, rather than each drawing primarily on its rural hinterland. Thus the economies of Shanghai, Tokyo, New York, Los Angeles, Amsterdam, Cairo, Mumbai, for example, would be connected to each other, minute to minute, night and day, rather than their primary connections being to their own rural hinterlands, as in the picture formerly drawn by Raymond Williams in *The Country and the City*. This shift has been widely noted, at times even over-drawn, by a range of commentators ranging from geographers like Edward Soja to sociologists like Saskia Sassen. Critics have suggested that early postmodern analyses overstated the new configuration and underestimated the staying power of the old. Neither metaphors of smooth continuity nor abrupt rupture quite capture the shift; but it is clear the sedimentations of the modern rural-urban articulation continue to haunt the postmodern dream of remote action at a distance. What the new 24-7 chains of “global cities” made clear was that we needed a more multi-valenced way to talk about the functions of the Third World in an emerging globality. No longer could the entire population of the Third World be considered superfluous and disposable; suddenly the smooth surface of the construct of “Third World” (invoked by progressive and conservative commentators alike, a massive formation with a history of colonization that loomed over its future with a determining force) showed striations, variations, unevenness, and ambivalent depths. Not all of it struggled to

escape from domination; indeed many of its inhabitants seemed eagerly to embrace the new globalism.

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What of Lyotard’s genuine anguish, then, of the dividing of Humanity into two parts? “One faces the challenge of complexity, the other that ancient and terrible challenge of its own survival,” contends Lyotard, drawing a picture in which the destiny of ever-increasing complexity pulls away from the drag of history; future and past are pitted against each other, divided up along first and third world axes. First world subjects become more complex in their entanglement with the new metaphysics of the network, while third world subjects have no time to raise their heads from the struggle to survive.

While we acknowledge the persistence of inequality, we must contest the implicit legacy of such simple first-third world distinctions. It remains the task of scholars to contest the separation of humanity into these two parts, not by claiming uniformity but by accounting for the multiple striations among and within every putative “part” of humanity.

When it comes to India, popular journalistic wisdom suggests that technology allowed the nation to leave underdevelopment behind it, with 1991 (liberalization) marking the watershed. In this narrative it appears that, sometime between Ehrlich’s 1968 description and Friedman’s 2006 euphoria, India left the ranks of the Third World. Thanks to its new brand image, it is no longer a superfluous / dispos-

able population. Indeed many nationalist economists and demographers gain a lot of mileage with this thesis, arguing that the population control experts of the 1970s have been proven wrong; that it is India’s huge population that has made it the destination of choice for remote services, such as data entry, call centers, and the massive business process outsourcing that propelled the late 20th-century technological boom. Boosterist, forward-looking entrepreneurial Indians would add to this argument with the observation that sub-continental nationalists and socialists have harped too long on the legacies of colonialism. If not for the English-language literacy and the science-based curricula that the British Empire left behind along with railways and roads, they suggest, India would never have had either the linguistic competencies for call centers, or the potential for growth that engineering and computer science education hold out for the 21st century.

However, although the 1st/2nd/3rd world conceptualizations have splintered, there remains an intransigent residue – India’s colonial legacy has not completely transformed itself into the comparative advantage of linguistic competence plus low wages and a 12-hour temporal head start.

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The second phenomenon people usually turn to, in explaining the transmutation of base populations into IT gold, is urbanization. There has been an explosion of erudite work on this phenomenon, but the lines are drawn in broadly political fashion, once

again. Consider, for example Mike Davis and the *Financial Times*, on opposite sides of this: in his book *Planet of Slums* Mike Davis calls urbanization of the globe unsustainable. Much of the urban world,” Davis warns, “is rushing backwards to the age of Dickens.” In an article on the 19th of February, 2009, *The Financial Times* calls for more urbanization:

DO TOO MANY INDIANS LIVE IN CITIES? NO, TOO FEW DO. Nearly 60 per cent of India’s labour force works in agriculture, producing just 17 per cent of national output. Even by 2030, according to the poverty report, only 41 per cent of the population will be urban. That compares with China, where 47 per cent of people are already city-dwellers, and rich nations where 80 per cent or above is normal. India’s slums give the impression that urbanisation has reached saturation point. But no nation has achieved prosperity without a shift from farming to manufacturing. India’s problem is lack of urban infrastructure and job opportunities, not city life. (D. Pilling, “Can Slumdogs Become Millionaires”.)

The *Financial Times* deploys the narrative of technological progress. This kind of progress invokes new kinds of humans – this story is not about savages, but about a human commensurate with the technological object that has been conjured by the 1990s.

So, there may still be a divide – but it is not exactly the one Lyotard invokes between 3rd world survival and 1st world complexity. Nor the one between domestic and public, women and men, colonized and colonizer that we are familiar with from subaltern studies. (I am thinking here of Spivak in *Grey Room*, and work by Partha Chatterjee, Dipesh Chakravarty

and Tanika Sarkar, in *Subaltern Studies*, on 19th century domesticity). But, I suggest, we are seeing a new rhetorical split: between the fetishized constructions of a new kind of technohuman, transcending the organic, and the displacement of an older construction, of pre-technological subjects without history, mired in the muck.

Thomas Friedman’s new golf-playing third world human is different, he might argue, because computational technology has shaped him anew. We are by now used to seeing identity and subjectivity as shaped by the social and historical, even by the technological. Nationalist and corporate developers, too, echo this notion when they advocate technocapitalism as the route to modernity, with computational efficacy always available for deployment as a hard-edged weapon with which to turn back two centuries of constructions of the abject and effeminate. The post-colonial human, no longer savage, seems to have used the magic wand of technology to dissolve the binaries of master and slave. Some post-colonials have qualified for entry into history, as modern subjects. It is technological efficacy that shifts the swarming sub-human mass of Ehrlich’s Delhi experience into the suave, brand-saturated individuals of Friedman’s Bangalore.

In this frame, in which identity is shaped by technology, the self can be seen as a social technology – thus we can extend the traditional domains of social science and the humanities to new domains.

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Analogously, we once thought sex and gender were separated as biology and culture, one determined and the other constructed, the former fact and the latter a fiction. Now we habitually explore how both are performed. Similarly technology and subjectivity now are released from the binary of fact versus fiction. But although it is now common to explore the endlessly interesting ways in which the self is a social technology, and subjectivity depends on a technological armature, it is worth reminding ourselves that technology cannot be called upon as an abstract philosophical, transcendental, or even juridical explanation for a particular form of selfhood. Technology itself has no inherent shape or transcendental function. Technology cannot be a given, but is in any historical period a consolidation, a sedimentation, a conjuration of particular ideas and things. These assemblages “develo[p] entirely within the historical dimension” – as Foucault noted, in an essay titled “Society Must be Defended” in the volume *Essential Works: Ethics*. Technology emerges out of forces of contestation and antagonism (what Foucault characterized as “war,” moving war from an occasional outbreak of formal conflicts into the everyday hostilities and collaborations through which subjects and knowledge emerge). Technology is not the agent of transparent communication, the mechanism of pure instrumentality, nor even the apparatus of order and rationality.

We must read technology and science as text, and as historical practice, but not just instrumentally or even ideologically. Here’s Foucault, discussing his method, in *Society Must Be Defended*:

In summary, as against the philosophico-juridical discourse organized in terms of the problem of

sovereignty and law, this discourse which decipher the continued existence of war in society is essentially a historico-political discourse, a discourse in which truth functions as a weapon for a partisan victory, a discourse at once darkly critical and intensely mythical.

In other words, although ideology critique is useful, the realm of the philosophico-juridical does not do all the work we need in the transnational study of technoscience. Rather, we must read technoscience's contingent, temporary formations via its geopolitical contingencies and its temporal disjunctures – its histories, politics, and perpetual hauntings.

In the early twenty-first century, India is often invoked as an exemplary post-colonial technoscientific space. India's economic liberalization (dating from the early 1990s), its entry into the World Trade Organization's IPR regime, and its post-9/11, post-tsunami role in global security discourse, have formed an enabling frame for the emergence of particular forms of proprietary techno-scientific knowledge. New forms of citizenship, subjectivity, and knowledge-based development proper to the twenty-first century post-colonial state are emerging. What modes of knowing, and what kinds of citizen-subjects, are proper to this historical moment?

Terms such as development and the "digital divide" have filled the space of these questions, becoming shorthand for what is seen as a regrettable, but redressable, unevenness in the distribution of the new global forms of wealth: high-speed connectivity and rapid flows of information and capital. I suggest that we push harder on the assertion of a putative incommensurability between the "high-tech" and the "primitive." Rather than being radi-

cally disjunct, these concepts are mutually constitutive. In order to explore the nature of this mutual constitution, and to understand the ways in which it is continuous with the legacies of colonialism but, at the same time, reinvents itself in novel ways, we must do more than catalogue the modern inequities that continue to characterize postcolonial technosciences.

The proprietary logics of technology and personhood are more complicated than either policy makers or anti-commodification activists have allowed. Many critics of commodification see (a) technology as a static tool that can be used for or against marginal populations, or (b) particular patent claims as violating the spirit of nature, community and/or tradition, or (c) neo-liberal legislation on personhood and property as directly continuing an Enlightenment project that selectively disenfranchised colonized and enslaved populations. However, we are living through a period characterized both by continuities with and radical dissimilarities from Enlightenment and colonial logics of property. The application of a "rule of property" to India is not new; indeed, the exploration of links among personhood, property, trade, and the state in the eighteenth century formed the basis for a historiographic revolution in the wake of Ranajit Guha's 1982 book *A Rule of Property for Bengal*.

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If the dominant and resistant discourses of property appear to be experiencing a renaissance, is

this because the liberal paradigm has triumphed, or because its futures are uncertain? After a half-century of commitment to a Fabian socialist state committed to poverty-alleviation and income redistribution, India entered a new period (part of a broader historical transformation of welfare states into trade states) with the liberalizing reforms of the early 1990s, consolidated in 2005 with the entry into force of the new patent regime. The new citizen emerges through the construction of new shared meanings of scientific truth, technological progress, and propriety.

II WHY POSTCOLONIAL?

Embedded within most conversations about post-colonialism is inevitably a recognition of the theoretical "crisis" of postmodernism, involving the crisis of representation, adequacy, and truth. We don't have the time for a history of the term, but we could recall some milestones in our thinking about it. In critical theoretical discourse, the terms postmodern and postcolonial emerged approximately co-ally, and intertwined in contradictory ways. For example, the space of the Third World was invoked several times in Lyotard's *Postmodern Condition*, as well as in his other works. Consider this assertion from his 1980s' essay *The Inhuman*:

Public space today is transformed into a market of cultural commodities, in which 'the new' has become an additional source of surplus-value.

When the point is to extend the capacities of the monad, it seems reasonable to abandon, or even actively to destroy, those parts of the human race

which appear superfluous, useless for that goal. For example, the populations of the Third World.

Lyotard reflected, in his 1985 essay, *Notes on the meaning of Post*:

We could say that there exists a sort of destiny, or involuntary destination toward a condition that is increasingly complex. The needs for security, identity, and happiness springing from our immediate condition as living beings, as social beings, now seem irrelevant next to this sort of constraint to complexify, mediatize, quantify, synthesize, and modify Humanity is divided into two parts. One faces the challenge of complexity, the other that ancient and terrible challenge of its own survival.

In addition to a new attention to science's internal discursive revolutions, the yoking of philosophical concerns to the material, economic effects of multinational capital was a significant thread that Lyotard's *Report* added to critical theoretical discussions of post-modernism. Many subsequent commentators took up the related themes of justice and foundationalism. Mark Poster noted, in his 1995 book *The Second Media Age*:

As the second media age unfolds and permeates everyday practices, one political issue will be the construction of new combinations of technology with multiple genders and ethnicities. These technocultures will hopefully be no return to an origin, no new foundationalism or essentialism, but a ... struggle against restrictions of systematic inequalities, hierarchies and asymmetries.

The sharing of the "post" prefix between postmodern and postcolonial, might symptomatically indicate the historical shifts in political power that decolonization entailed, and which had far-reaching epistemological implications.

In his 1991 article, "Is the Post- in Postmodernism the Post- in Postcolonial?" Anthony Appiah cautioned that "Postcoloniality is the condition of what we might ungenerously call a comprador intelligentsia." Appiah's and other voices brought a modification of the notion that post-colonialism dealt simply with the historical era *after* the world was done with colonialism. Instead of the simple *post-* or *after*, he argued, we need to have conversations that began from different locations, formulating a critique that includes in its scope post-realism, post-nativism, post-communitarianism, and post-modernism. He suggested that the view from "here" and from "there" were different; and that they offered different implications for the role of postmodernism, and the meaning of the "post" in both postmodernism and postcolonialism. For Appiah: "The role that Africa, like the rest of the Third World, plays for Euro-American postmodernism ... must be distinguished from the role postmodernism might play in the Third World".

Appiah's critiques grew out of his readings of postmodern African literature. Analogously, the question I have asked, about when and where the move to postmodern technoscience occurs in the representations of the Third World, must emerge out of our readings of technoscience (in which we read technoscience as text, as political practice, as geopolitical strategy – not as technocratic code). It is in this inquiry that Ehrlich's and Friedman's iconic 20th century representations of the technoscientific and of the Third World come into focus – but only as a starting point. We have much work to do if we

would like the texts and practices of technoscience to speak to us with as much richness as the traditional objects of critical theory have until now.