



**DEEP NORTH**

# DEEP NORTH

Stephen Kovats, Thomas Munz (eds.)

# Imprint

DEEP NORTH

transmediale parcours 2

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# Introduction

Stephen Kovats, Thomas Munz

In the summer of 2007 the Russian research vessel *Akademik Fjodorow* was dispatched on a geo-physical expedition to the North Polar Sea. Accompanied by the icebreaker *Rossija* the crew released *Mir I*, an unmanned remote controlled mini-submarine, which placed a small titanium flag of the Russian Federation on the rocky seabed 4200 m directly below the still impermeable ice cap at the Earth's geographic North Pole. This act, seen by many as a symbolic act of national sovereignty beneath international waters coincided with the first recorded freeing up the historical Northwest Passage through the Arctic - a centuries old sought after short cut between Asia and Europe. These events, amongst the first tangibly visible results of presumed climatic change in the North, may have marked the first volleys ... the initiating tremors pointing to the geo-political *tipping point* in the global transformation that will come in the wake of climate change. The planting of the flag becomes the symbolic, media-induced and politicized consequence of a natural phenomenon caused by post-industrial society's technological intervention in the Earth's physical infrastructure.



Russian flag on Arctic seafloor



In the search for a *deeper North* that extends beyond the headlines reaching us from the Arctic, this publication accompanies transmediale.09, Berlin's festival for art and digital culture, which examines the paradoxical and global consequences signaling the re-orientation and shifting of perspectives lurking below the impenetrable surface of climate change. By defining DEEP NORTH not as a fixed location, but a paradigm transforming loss into a complex state of being and cultural development – climate change becomes the essential indicator of a far deeper, complex and fundamentally essential cultural change.

This, the second edition of the *transmediale parcours* the festival's new publication series, is intended to sketch a conceptually meandering path through and along the themes that the festival addresses, picking up on points, manifestos and images supporting the festival's conceptual background. As a stand-alone publication next to the festival with its own character, content and style, the DEEP NORTH *parcours* looks beyond the festival's temporality while reflecting on the event's artistic and critical research.

DEEP NORTH is a call to artists, media researchers, activists and scientists to explore the roles that art and digital culture play in defining new cultural strategies beyond the rhetoric of climate change. The texts and works selected for this *parcours* reinforce the notion of the Earth as a global system of interrelated events and networks where a shift in the perception and attitudes towards cultural interdependencies become critical. Leading off with social scientist Claus Leggewie's essay *Dying for Beauty* arguing that climate change is in fact a cultural issue, DEEP NORTH looks beyond the alarmist scenarios of environmental catastrophe and shifts the focus of this debate to the broader cultural, societal and philosophical consequences that the collapse of the northern ice barrier reveals. Are we about to reach another historically succinct and unavoidable moment of spontaneous global catharsis – a point of no return leaving in its wake an unforeseeable global transformation akin to the fall of the Berlin Wall 20 years earlier?

DEEP NORTH focuses on the remote, silent ... indeed deep zones of artistic and cultural sensibilities and processes of transformation from the arctic to the desert, from the depths of network practice to the remote constructs of scientific and technological systems. In the interview *Welcome to Igloolik*, conducted between tactical media artist Marko Peljhan and Inuit hunter and filmmaker Zacharias Kunuk, Peljhan remarks that it is from the vantage point of the poles, both North and South where the changes in the Earth's fragile systems can be observed most radically. Yet for most of us *Southerners* the frozen extremities of the Earth remain largely a mythical, inaccessible and unattainable *Zone Interdit*. Ulla Drenkhan's picture-essay *Staging the North* reminds us of the mythic and historical separation between the development of urban industrial culture and its belief in the conquest of *man over nature*. Our technological history is inseparably fused with our desire – and ultimate failure up to now – to enter and understand the Earth's extreme and seemingly inhospitable regions. Mary Shelley banished *Frankenstein's* creature, the monster created by blind faith in technology and progress, to the North Pole. Misunderstood and fearful of the world that created him, the monster flees his master finding solace and peace in what was believed at the time to be a barren and inhospitable void beyond the end of the Earth. The Far



**'Ice, near Igloodik Island, April 11, 2006'**

North has still not entered our realm of perception and experience, yet it is one of the earth's most unique and vibrant cultural territories. Its inhabitants, silent eyewitnesses to climate change, face the dilemma of being swept away under the encroaching pressures to break open and exploit the vast riches and resources locked below the land and the ice. For the Inuit this is a landscape in which, perhaps ironically, cultural progress and survival lie in the creation of a new hybrid of technology and nomadic tradition.

Few from the South have managed to truly enter the complex psychogeography of the North, but those that have include legendary French polar explorer, ethnographer and UNESCO Goodwill Ambassador for Northern and Polar Affairs Jean Malaurie. He warns us about the global consequences in ignoring the experience and prescient far-sightedness of the Inuit - in particular with respect to their understanding of the relationships between technology and survival. Through his lens of cultural dynamics Jean Malaurie squares today's worldview of natural or geopolitical turbulence to events set into motion in the arctic. These dichotomies and seemingly abstract global interdependencies are picked up in *Escalation*, in which the Swiss based critical design and research duo Territorial Agency trace our understanding of cultural production to a contemporary history of bipolar conflict centered around the ways in which we codify the North Pole.

Although art works such as Marco Evaristi's *Trilogy* and Andrea Polli's *Ground Truth* may on the surface seem an attempt to lure us into considering the Arctic as well as the Antarctic as remote places of serene calm and beauty these artists unveil the scenarios of displacement and estrangement taken up in essays by Bureau d'études and Ulrich Beck. This becomes the moment when DEEP NORTH becomes the struggle for resources, the emergence of new national alliances and competitions - the toxic battle to push climate change in order to gain access to hidden resources, to force migration further destabilizing global systems. In the curious letter provided us by <Tsuba ka 23> we enter the zone where DEEP NORTH turns to the questions of survival, development and agency, where the speculation into the images of frozen landscapes give way to the type of conflicts that are the precursors to yet another new world order where climate, scarcity and mobility intersect. In his essay on the *Tantalum Memorial* project Jonathan Fletcher weaves the violent irascibility of the Congo conflicts with our dependence on the mineral coltan, a rare resource essential for mobile communications technology more valuable than gold and diamonds. While the Congo conflict, and its roots in the scramble to secure coltan, may not be the direct result of global warming, the conflict is exemplary of the type of resource geo-politics, ethnic cleansing and systemic violence - the looming „climate wars“ the 21st century faces - and which Harald Welzer confronts us with by laying out in clear terms *What Can, and Can Not be Done*.

Ultimately, it becomes clear that the type of *cultural revolution* we are facing in acting on and addressing the issues of climate change will only materialize through a radical re-think of the way in which we use technology and - in a world of over 6 billion people - less in our attitudes as individuals. Rob van Kranenburg calls for such agency in *Growing Up*, where the helplessness and indifference of the individual vis-à-vis the overwhelming challenges we face as a society, echoed in Reynold Reynold's *Six Apartments*, finds resolution in the active and creative fusion of policy,

critical design and creative grass-roots initiatives. Such agency is reflected by hehe's *Disappearing Clouds* which references means in which individuals can witness the effects of their consumer choices within broader community systems to the urban *Climate Refugee Camp* actions by Hermann Josef Hack who declares that „only artists can stop climate change!“

DEEPNORTH, both as a live event and in the form of this publication recognizes the urgency to bring the often-divergent camps of art, science and politics into a dialogue with one another. With the philosophical filter and perspective skew that art provides, we have the ability see beyond the cacophony screaming at us through an issue more complex than any single discipline can tackle. Laura Schleussner's contextualization of the art works selected for transmediale's exhibition is such an analysis where we find Jana Linke's *click and glue*, a quietly floating helium balloon slowly entangling itself in its own web of hot glue reminding us of the carelessness of our own actions. As with the eerily powerful and thought provoking landscapes we are confronted with by Charly Nijensohn's *Beyond the End* or Petko Dourmana's *Post Global Warming Survival Kit* for a nuclear winter style *post-Tipping Point* world, the art works challenge our perception of what the mechanisms of climate change really are. They point to the indefinite edges of fragility, speculation and questionable equilibrium at which we find ourselves today. As with the poetic mastery of *Sonolevitation*, an acoustic and electro-magnetic manifestation of fragile levity by Netherlands-based artists Evelina Domnitch and Dmitry Gelfand, the participating authors, artists and scientists provide the fleeting glimpses of where we are going ... to the DEEP NORTH of a newly emergent and global cultural awareness.

# Dying for Beauty? Climate Change as Cultural Issue

**Claus Leggewie**

It is widely believed that culture is concerned with beauty, and that beauty has to do with transience. Creating beautiful images of climate change is tricky. The escalating fever charts of CO2 emissions and temperature and sea level rises, with their abrupt, hockey-stick upturns, are much too reminiscent of pollyannaish charts of industrial growth, so that one must turn to more suggestive images to make the invisible visible: submergence scenarios for the North Sea coast, tsunami devastation in southern Asia, New Orleans under water.

In view of this, it is perfectly plausible to present climate change as an aesthetic fascination. There is little to rival the visual grandeur of what used to be called a “calving” glacier (today “dying” springs more readily to mind). The view of the crashing masses of detaching ice reveals an eerie beauty of nature, and the sheer sensation of it is overlaid with the presentiment of an irrecoverable loss. Entire Web sites and numerous monitoring agencies are devoted to nothing but making plain the break-up and disappearance of the ice, and to warning of catastrophic consequences: sea-level rise, water shortages, glacial lake outburst floods and landslides. The famous Perito Moreno Glacier, part of a colossal, continental Andean ice field and, as a UNESCO World Heritage Site, one of the top tourist attractions of Argentina, has become even more of an attraction since its sixty-meter walls of ice began “calving” in the winter months too. Thousands of tourists and millions of television viewers follow the spectacle conveyed via Web cam.

We can imagine an Austria without glaciers, but what about the Antarctic, Greenland, or the Himalayas? Not only do picture postcard idylls and incomes from winter and summer tourism depend on the eternal ice, but also collective identities forged in its context over centuries—identities whose precipitous melt promises a disintegration of meaning and a slide into indifference. Austria or Switzerland without glaciers? One stereotype down, we might think—and artificial snow can cover the baldest patches. But if the glaciers disappeared from the Alpine countries, it would not just impact local flora and fauna, and not only pose a challenge to the tourist industry, which in the canton of Valais continues to trumpet a guarantee of “snow security.” A Switzerland without glaciers, we can foresee, would not only be a geographically altered landmass, but also a nation with an altered collective identity and aura. Other soft image factors such as Swiss watches, banks, and chocolate would not be spared the impact.

### **Natural disaster as social disaster**

This example shows how natural disasters become the concern of culture and cultural studies. It has long been understood how volcanic and seismic events, avalanches and floods, flash floods and tidal waves, hurricanes and soil erosion are to be understood in this context. “Natural disasters do not take place within nature itself, but always in relation to a society affected by a natural event. Whether a natural event is perceived as a disaster, is defined by the significance of the consequences to the living conditions of those affected. But those consequences cannot be . . . derived or accounted for . . . on the basis of the event’s causality in terms of natural laws; rather, they reflect by their effects on a society the essential conditions and qualities of that society,” as one geographer put it back in 1982.<sup>1</sup> This was good old classroom geography, its aim a synopsis of physical and social living conditions, before it abandoned itself to absurd internal competitions, which now, under the auspices of extreme weather events, must in turn be superseded.

In terms of its causes and physical manifestations, “climate change” may be a subject of the natural sciences, but in terms of its consequences, it must become a central theme of the social and cultural sciences. The term “natural disaster,” which we also use to describe the consequences of climate change indubitably of human causation, can then be deconstructed to the loss of social certainties to which enlightened members of industrial societies have grown accustomed. The very term “disaster” in the sense of a result of natural hazard is a modern one. In former ages, such events were interpreted cosmologically and theologically, as supernatural interventions in human

existence.<sup>2</sup> To the extent that nature became “conquerable,” disasters ensued when cultural precautions failed disastrously. In this way, natural events and processes that were experienced as disastrous entered the *memoire collective* to shape provisions made for the future. Out of the incalculable threat posed by natural forces there developed a relationship with a nature whose risks were to be permanently tameable with the help of technology, a relationship deliberately entered into and, in every sense, insurable. The epistemic dichotomy of “nature” and “society” took root, a dichotomy that became determinative in dealing with damaging events of all kinds, transferring the management of natural risks to responsible administrative departments. But this has led to the emergence of new risks, which again can only be contained by further technological innovation. This is the game being played with nature by enlightened, risk-aware mankind, and it is increasingly open to question how sensible a game it is.

### **Earthquakes and other disasters**

Nature knows no disasters. The stated social formula of the “natural/disaster” is used to refer to that species of natural event which, unlike climate change of human causation or exacerbation, seems to resist any human forecast or control: earthquakes and other events of geotectonic influence, such as volcanic eruptions and landslides. The counter-evidence lies in the evident differences in consequence triggered by seismic events of the same magnitude in uninhabited and inhabited regions, and, even more clearly, in the fact that such events always claim more victims in underdeveloped Iran or Pakistan than in Japan, a fact not entirely attributable to earthquake-proofing in architecture.

If I understand him correctly, the geophysicist Amos Nur (Stanford) argues against the mainstream of archaeology, once the “mother of the humanities” in Europe.<sup>3</sup> He seeks to show, firstly, that much more material and human damage has been attributable to earthquakes (and less to wars and civil wars) through history than hitherto assumed, and, secondly, that historical breaks such as the end of the Bronze Age (ca. 1200 BC) in the Mediterranean, a region of high-intensity seismic activity, were caused by earthquakes. The seismologist shows the archaeologists that they have overstated human influence in their quest for reasons behind the fall of Troy, Jericho, Mycenae, Armageddon, and so on, and shows the historians, religious scholars and anthropologists that they have not gone far enough in their interpretations of these downfalls. Disruptions “by natural causes” bring about social collapse and generally accelerate social change.

Two explanatory models have always competed in the interpretation of disasters caused by earthquakes and the like: the religious, pronouncing the event divine punishment, and the scientific, describing local and universal human vulnerability in terms of observable circumstances which may be avoidable by the exercise of precautions. In the transition from the former to the latter, conspiracy theories flourished, projecting the calamity onto scapegoats. Witch-burning was probably closely connected with the “Little Ice Age,” which was no longer seen as divine punishment and could not yet be conceived in terms of natural or human causation.<sup>4</sup> It might be assumed that supernatural factors were particularly cited when people as yet lacked scientific understanding, but this was not always the case. On the contrary, in the transition to the modern period as the scientific world-view gained ground, the relevance of religious interpretation in no way declined, but may even have intensified in dramatic content. Paradigms were the Flood (Gn 6–8),

Biblical plagues (Ex 10, 3-19), and the apocalyptic epiphenomena of the Last Judgment (Rv 9, 1-11). These were represented or anticipated in plagues of locusts and extreme natural events as manifestations of divine omnipotence, proselytical omens, or divine retribution for human decadence. The Reformation leader Martin Luther was convinced of *corrupta natura*, that is, of the destruction of nature by human sinfulness, so that storms and earthquakes were indications and consequences of that sinfulness.

It remains to be established whether the surge in religious interpretations was a consequence of theological reexamination, a symptom of the secularization crisis or, indeed, a reflection of climatic development—the “Little Ice Age” from the late 16th to early 18th centuries—or all of the above. One example of the conspicuous social and cultural consequences of “natural disasters” and of the competition between religious, spiritual interpretations and those of an empirical, scientific nature is the notorious, epoch-making earthquake which struck Lisbon on the morning of All Souls’ Day in 1755,<sup>5</sup> as half the city worshipped in the churches. The force of the earthquake was not the only reason for the worldwide attention it received, though the quake measured around 9 on the Richter Scale and was felt as far afield as Algiers and Helsinki, and although it and the ensuing tidal wave and especially fires claimed over a hundred thousand dead and injured and caused massive material damage equivalent in value to over £12 million sterling. Of greater importance were the rumors of this unprecedented occurrence that spread (remarkably slowly because of communications technology) across Europe, its political impact on Portugal as Sebastião de Melo, the future Marquis of Pombal, implemented what amounted to a coup d’état, and the aftershocks in literature and philosophy, for instance in the debate between Rousseau and Voltaire. While Pombal’s draconian measures for aiding and reconstructing Lisbon marked the triumph of the secular nation-state over ecclesiastical authority, Voltaire and others set the seal on the victory march of the pessimistic secular principle of a rational worldview no longer conceived in terms of God, “benevolent” nature and the “best of all possible worlds.”

Religious paradigms of interpretation and coping with environmental crises have in no way vanished from the world of today. The manifesto of an evangelical climate initiative in the United States proves the point: “With the same love of God and neighbor that compels us to preach salvation through Jesus Christ, protect unborn life, preserve the family and the sanctity of marriage, defend religious freedom and human dignity, and take the whole gospel to a hurting world, we the undersigned evangelical leaders resolve to come together with others of like mind to pray and to work to stop global warming.” These neo-evangelicals, who have increasingly distanced themselves from the inactivity of the White House under the climate policies of George Bush and the Republicans, aim to proceed from inspired learning to effective action in the spirit of their triple exhortation “Learn—Pray—Act.” In doing so, they call for a comprehensive, consistent agenda for life, not merely doggedly insisting on the protection of unborn life, but demanding the conservation of creation wherever living beings and nature are encroached upon, including wherever they fall victim to the destructive activities of American companies. The National Association of Evangelicals set out this position a few months ago in the statement of principles “For the Health of the Nation,” conceived by the media tycoon David Neff, editor-in-chief of *Christianity Today*. This brought climate change to the top of the Christian reform agenda. Everywhere, from the Bible Belt to the Sun Belt, from the smallest congregations to the superchurches, and even in the



flagship of evangelical conservatism, the *Southern Baptist Convention*, the message is heard. Single-issue movements like the *Evangelical Environmental Network*, galvanizing the entire palette of American grass-roots dynamics, or the *Evangelical Climate Initiative*, bringing together political players and mobilizing significant resources, reinforce the effect.

### **Climate change—a key theme of the cultural sciences<sup>6</sup>**

These historical and present-day examples are intended to substantiate the claim that climate change, which scarcely anyone can still see as a “natural disaster,” while being a subject of the natural sciences in terms of its causes and physical manifestations, must in terms of its consequences become a subject of the social and cultural sciences. Of course, it will be *meteorologists* who explain to us why during the summer months powerful tropical cyclones occur in the Indian Ocean, triggering massive storm surges that cause great destruction, as in 1970 in East Pakistan (now Bangladesh) and 2008 in Burma. Likewise, it must naturally be earth systems scientists at Potsdam and elsewhere who devote themselves to the question of whether such natural phenomena might be aggravated by a concatenation of non-linear climate change processes. Incidentally, it must also be the job of researchers in the technical sciences, as in the aftermath of the Boxing Day tsunami of 2004, to limit the risks to coastal regions with early warning systems.

However, the consequences of such events on local regime conditions (e.g., in Burma, ruled by a military dictatorship) and social structures (e.g., in the unstable Indonesian province of Aceh) are a matter for the social and cultural sciences. Natural scientists are well-acquainted with complexity, but less so with symbolic interpretations and constructions of reality as people make them in ordinary and extraordinary times alike, and not at all with direct, long-term impacts on politics, societies, and economics. With climate change now unquestionably bringing a cultural revolution in its wake, climate research is becoming a key theme of the cultural sciences, in which we include the humanities and social sciences. Seen in proportion to its scale, social science, which focuses on normality and modernization, has shown just as little grasp of this as post-modern cultural studies, with its focus on divergence. While the latter has departed from the analysis of real dangers with an exaggerated constructivism (climate change is not a “discourse”!), social science research into risks and disasters has remained rooted in the old dualism of “nature” and “society,” prescribing formulaic technological and managerial approaches to disaster precautions and relief, generally at the expense of local knowledge.

What is required is not only the provision of renewable energies and the development of sustainable environmental policies, but also insights into individual and collective strategies of adaptation and coping, and into the effects of climate change on societies and social relationships. The consequences of climate change, as forecast by the UN’s Intergovernmental Panel on Climate Change (IPCC) and leading research institutes, and as they have long since been visible in the form of rising sea levels, the occurrence of extreme weather events and, as discussed above, glacier shrinkage, have profound implications for global living conditions. Habitable environments will shrink, the displacement of “climate migrants” will increase, cultivation zones will shift. Groups of losers and winners will form here, and existing equality gaps may grow—not only between north and south, but between generations. In this context, cultural scientists’ climate research prepares scenarios and forecasts on the possible cultural and social consequences of

climatic shifts. Specifically: the mental and symbolic forms of perceiving and interpreting warming consequences and the requirements for successful processes of adaptation to the consequences of climate change.

Success here is only possible if—however “esoteric” this may sound at first hearing—we recognize with Bruno Latour that “nature” and “culture,” “society” and “environment” are “mobile constellations of elements” (Julia Maintz), and if abiotic components are included as an agent. This approach is, *pace* the gloom-mongering of so-called “climate skeptics,” neither alarmist nor deterministic. It is true that climate change poses a considerable risk to traditional norms of living and acting, precisely because the impending finiteness of natural and institutional resources places a great pressure of time on the regeneration of systems in crisis (market, state, democracy, civil society). The sword of Damocles will fall at some point between 2020 and 2050. But climate change also offers the opportunity of developing new institutional and individual forms of cooperation as well as cultural techniques for managing risks—in other words, of renewing markets, states, democracies, and civil societies. The establishment of supranational and transnational organizations (e.g., an international environmental court) could be stimulated by climate change, as could low-resource technologies and logistics, which would then in turn considerably alter ways of life, necessitating—this being the crux—a new culture of democratic participation. For the development of improved regulation and technology by enterprise and public authorities is not everything. There must be revised concepts of government, new models for participation and compensation, different market stimuli, even new concepts of intergenerational equality, and, not least, improved forms of violence prevention.

The tasks facing cultural scientists in climate research are many. They include the anthropological survey of the history of human disaster and a sober taking stock of the human potential to evolve to cope with “natural disasters.” Also needed are an attentive critical reflection on the times and a minute analysis of micro-social behavior, which, for instance, consists in myriad positive or negative decisions to buy or consume. Natural scientists’ climate research forecasts and the programs of political, economic, and legal regulation must be translated into empirically-founded, predictively valid scenarios of social, political, and cultural development.

To give one example: only through historical ethnographic analysis is it possible to acquire any sort of picture of what present-day climate change is or might be. It is not a single, epoch-making event like the aforementioned Lisbon earthquake of 1755, but it does give rise to events such as Hurricane Katrina, whose impact can be just as profound as they become international media events. Nor is it a “big bang” of the kind inherently threatening Los Angeles and other global earthquake zones, but like these it constitutes a chronic irritant to the mind, in that something defined and yet undefined may happen. Climate change is different from events such as economic depressions, banking crises, and political chaos, but in its socio-political and socio-economic aspects it may also come to resemble just such phenomena. And it is more often the case than has traditionally been thought that outbreaks of violence and war are not only comparable to climate change in their destructive potential, but are also (in part) caused by it. The term “climate wars” (Harald Welzer<sup>7</sup>) illuminates how climate change compels a change of viewpoint and perspective on familiar phenomena, putting current processes of global society into a new context.

Climate change, often subtitled “climate disaster,” presents a peculiar quality of information. This may firstly be a result of the intricate interconnection of long-term change that is independent of events and eruptive episodes disseminated as global media events. The former affects a chronic background irritant to the public, while the latter bring shock experiences. Proof of this structure is found in the broad treatment of the theme of climate change in 2007 on the basis of empirical and predictive evidence, supplied by experts, which had been available for at least twenty years, but which only found global attention in connection with the presentation of natural disasters in the media. This betrays a second peculiarity, valid for many fields of ecological risk communication: the difficulty of translating the evidence of natural sciences into a narrative capable of addressing general life experiences and ways of life. A third peculiarity, also true for many ecological processes, consists in the internationality both of problem indicators and of the political and technical remedies offered. And, though this is a global problem *par excellence*, it will be necessary especially in climate politics to allow for different patterns of cultural perception if actions are to be undertaken with success. The water level will rise to a greater or lesser extent on all coastlines, but the mechanisms of perception of, and adaptation to, this finding will differ culturally according to how water, surges, and floods are interpreted and have traditionally been managed. Let no one assume that the North, better-equipped in terms of technology and able to afford floating houses and immense dyke constructions, is automatically better-armed than the population of the southern hemisphere.

Climate change is not only a global phenomenon, but also a phenomenon of an indeterminate nature and unforeseeable duration. As such, it poses new challenges to human societies and their institutions, and requires of them adaptations some of which are probably without precedent. In the field of politics, adjustments to international relations are being considered against the background of climate change. There is a need for a consistently global social perspective of investigation and a new agenda for domestic and external security policies, addressing in particular the north-south relationship and worldwide migration movements. Where there have been natural disasters, migration has always also followed, and with it xenophobia and outbreaks of violence. This raises the question of how modern states are to manage the presumably dramatic consequences of climate change while maintaining civil society, over and above the already immense tasks emerging in the light of demographic change and economic and cultural globalization. How can the liberal democracies of the West, which stood the test of systemic conflict with fascism and Soviet communism, be preserved? How compatible with democracy is the climate crisis? How climate-friendly is democracy? Whether and how local political regimes can be brought to join supranational and global structures of governance, and conversely how global political programs can be regionalized, is likewise open to question.

Mainstream economists have calculated the probable consequences of climate change in gigantic damage sums rather than treating them as an issue of “living well” and hence as an opportunity for development, putting the growth paradigms of the industrial age up for negotiation and compelling producers and consumers of goods and services to pay attention to sustainability and equity. This renews criticisms of technological, industrial civilization, which have been voiced ever since the onset of industrialization, but it also challenges “post-materialist” value orienta-

tions. How can new patterns of life and consumption assert themselves in the context of climate change, and what power do consumers and their organizations have? And can climate change in the traditional sense be formulated in a socially acceptable way as 2008 sees the emergence of a global economic and financial crisis of unexpected magnitude?

In the end, what is at issue in the much-neglected core field of mentalities is the perception, interpretation, and visualization of climatic changes and the psychological capacities to cope with their consequences, the permissible assumption being that normative consensus on the avoidance of negative climatic consequences will only very gradually and incompletely attain transcultural authority, and that institutions and mentalities will develop more slowly than the global lowest common denominator consensus that “really” something ought to be done. In this context, again, we must ask what coping patterns are made available to present-day societies by the memory of historical disasters and rapid processes of social transformation, and how this very transformation alters people’s standards of normative and moral evaluation. The immemorial problem of the discrepancy between knowing (or willing) and acting is revisited.

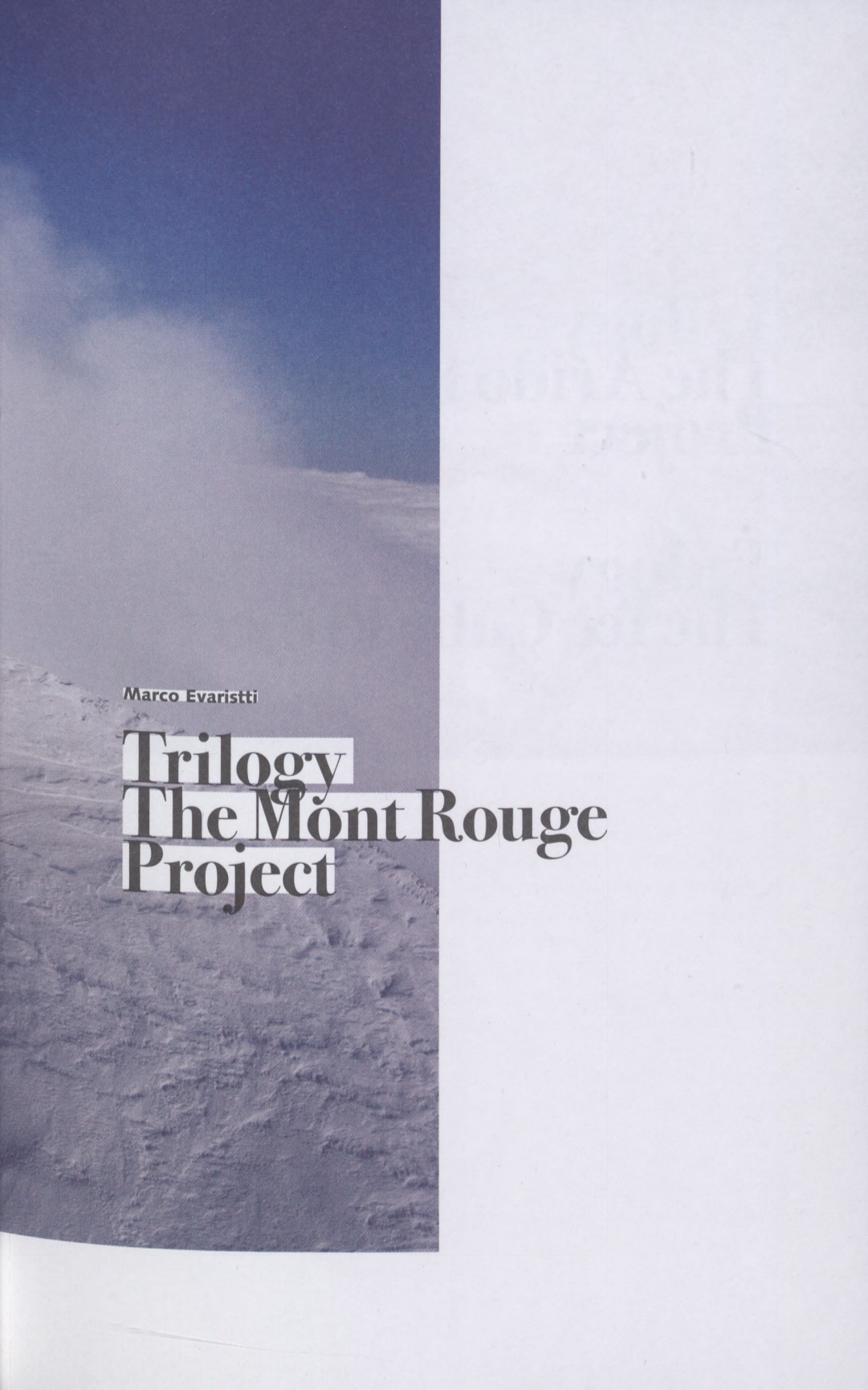
### **A duty to adapt? Gazing into the ice**

Two concepts, or processing strategies, often confront one another in climate research based on the natural sciences: mitigation and adaptation. The KlimaKultur project network follows a wider notion of adaptation which even includes the denial of the very phenomenon—as is well-known, the ostrich also responds in its own characteristic way to an excessive pressure to change by burying its head in the sand. Mitigation, the hitherto prevailing paradigm of preventative climate protection, i.e., the avoidance of the avoidable, is certainly not obsolete, but the question that needs to be faced is whether, and if so how, we can adapt to the unavoidable. In art, the unthinkable is thought with relish, but science too must dare to detach itself from “thinking as usual” and derive from climate forecasts the scenarios that will in all likelihood be triggered by radical climate change. To conclude, then, we expressly call attention to the power of the fine (and other) arts, which have naturally also concerned themselves with the world of eternal white, as Ólafur Eliasson did in his de-icing installation *Your waste of time*. In his performance work *Sometimes Making Something Leads to Nothing* (ice) - Part I (1997) Francis Alÿs spent a day pushing a large block of ice through the streets of Mexico City. Also perhaps worthy of mention is Pepi Maier’s 2006 light and sound installation in the Great Ice Cave of Dachstein, drawing on an older painting tradition. Most recently, advertisers and politicians have also discovered the theme. The Diesel clothing company makes bleak jokes about sinking cities, and the German Chancellor and her environment minister have themselves pictured in bright red anoraks against the greening coast of Greenland as if making a commercial for outdoor apparel. A yet-to-be-researched fashion topic for KlimaKultur . . .

- 1 Wulf Schmitt-Wulffen, "Katastrophen: Natur- und Sozialkatastrophen," in: Jander / Schramke / Wenzel (eds.), *Metzler Handbuch für den Geographieunterricht*, Stuttgart 1982, p. 137ff, quoting: Carsten Felgentreff/Thomas Glade, "Naturrisiken – Sozialkatastrophen: zum Geleit," in *ibidem* (ed.), 2008: *Naturrisiken und Sozialkatastrophen*, Berlin-Heidelberg p.3
- 2 Article, "Naturkatastrophen," in *Enzyklopädie der Neuzeit*, vol. 8, 2008, col. XXX
- 3 *Apocalypse. Earthquakes, Archaeology, and the Wrath of God*, Stanford 2008
- 4 Cf. here the work of Wolfgang Behringer, Rüdiger Glaser, Christian Pfister et al. on climate history
- 5 Horst Günther, *Das Erdbeben von Lissabon und die Erschütterung des aufgeklärten Europa*, Frankfurt am Main, Fischer 2005; Mattias Georgi, *Das Erdbeben von Lissabon*, Darmstadt 2005; Ulrich Löffler, *Lissabons Fall – Europas Schrecken: Die Deutung des Erdbebens von Lissabon im deutschsprachigen Protestantismus des 18. Jahrhunderts*, Berlin 1999; Wolfgang Breidert (ed.), *Die Erschütterung der vollkommenen Welt. Die Wirkung des Erdbebens von Lissabon im Spiegel europäischer Zeitgenossen*, Darmstadt 1994
- 6 The following is based on Leggewie/Heidbrink/Welzer, 2 Grad. *Das Wetter, Der Mensch und sein Klima*, Göttingen 2008, p. 137ff.
- 7 Harald Welzer, *Klimakriege*, Frankfurt am Main 2008







Marco Evaristi

**Trilogy**  
**The Mont Rouge**  
**Project**





**Trilogy**  
**The Arido Rosso**  
**Project**

**Trilogy**  
**The Ice Cube Project**



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# Geoengineering: From the Atom Bomb to Rising Water Levels

Bureau d'études

## 1. From “civil” atom bombs to “clean” atom bombs

An article in the *Bulletin of Atomic Scientists* from June 1950 discusses the possibilities of using nuclear explosives to blast canals and mines or to break up icebergs. But the starting shot for nuclear geoengineering dates from the famous speech entitled “Atoms for Peace” given by President Eisenhower on December 8, 1953. The UN subsequently financed a conference in 1955 on the “peaceful” use of atomic explosives. In France, enthusiastic about the idea of peaceful bombs, the scientist Camille Rougeron wrote a monograph describing a range of possible applications for nuclear devices including diverting rivers, modifying climate, melting glaciers, building subterranean power stations, and blowing up mountains to extract ore.<sup>1</sup> In the Soviet Union, the engineer G.I. Pokrovskii also spoke of the possible use of atomic devices to excavate canals, considering that “radioactive contamination from a nuclear explosion should not be considered an insurmountable obstacle to the use of this kind of explosive for mining or construction work.”<sup>2</sup>

The companies involved in the American military-industrial complex were quick to profit from these harebrained schemes; they were the first to launch secret programs devoted to the “civil” use of nuclear devices (the Plowshare Program). At that time so-called “clean” nuclear projects were not yet on the agenda.

In 1957 the first civil nuclear explosion was carried out on a military site in the Nevada desert. It confirmed the engineers’ conjectures and was soon followed by the Gnome Project in 1961, which carried out the first ever underground nuclear explosion.

In 1956 Edward Teller, the creator of the hydrogen bomb, presented the crazy project of digging a “second Suez Canal” using nuclear explosives. 300 nuclear devices buried in South Panama would be enough to excavate the channel. Another option involved burying a string of 764 bombs across Colombia.

In 1958 the Atomic Energy Commission (AEC) put Teller in charge of the Chariot Project, which involved the building of a man-made harbor at Cape Thompson in Alaska using a hydrogen bomb.

However, the growing sensitivity of public opinion to radioactive contamination called these projects into question, and the Plowshare Project itself was ultimately concluded in 1977.

In the 1950s the first studies appeared showing the global effects of civil and military nuclear testing. A UN report mentioned that “The radioactive strontium that never existed in nature before can be found today in the bones of the children of the atomic era, probably everywhere in the world... UN investigators have discovered that the quantity of radioactive strontium [from H bomb explosions] absorbed by the bone system of oriental children is six times bigger than the quantity found in occidental children. [the former consuming rice taken directly from the soil].”<sup>3</sup>

In the 1970s declining revolutionary movements joined forces with the rising tide of ecological protests. The radiation sufferers’ International replaced the Revolutionary International, radiation now the lowest common denominator shared by the governed peoples of the world.

By doing away with the idea of non-anthropogenic nature on earth and fostering awareness of the systemic effects of human activity, large-scale nuclear experiments ushered in a new age of engineering focused on modifying the environmental, climatic, oceanic, and atmospheric systems they had previously destroyed through the use of industrial and military technology. Certain highly active atomic researchers found themselves occupying high-level positions in climatic engineering.

## **2. From atom bombs to geoengineering**

Local climate modification has been tested and carried out for military and commercial purposes for many decades. The technique of cloud seeding to cause rain was discovered in the late 1940s and first tested in the 1940s and 1950s.<sup>4</sup> In 1953 a presidential advisory committee on climate control was set up to pursue these ideas, and in 1958 the US Congress increased the research budget for weather modification.

Large-scale experiments were also taking place in the Soviet Union, although the research was more secretive. Around 1956 Soviet engineers came up with the idea of a dam on the Bering Strait, which would make it possible to pump water into the Arctic Ocean from the Pacific. Warm

water flowing into the upper Atlantic would melt the Arctic ice cap, making the ocean navigable and warming up Siberia.

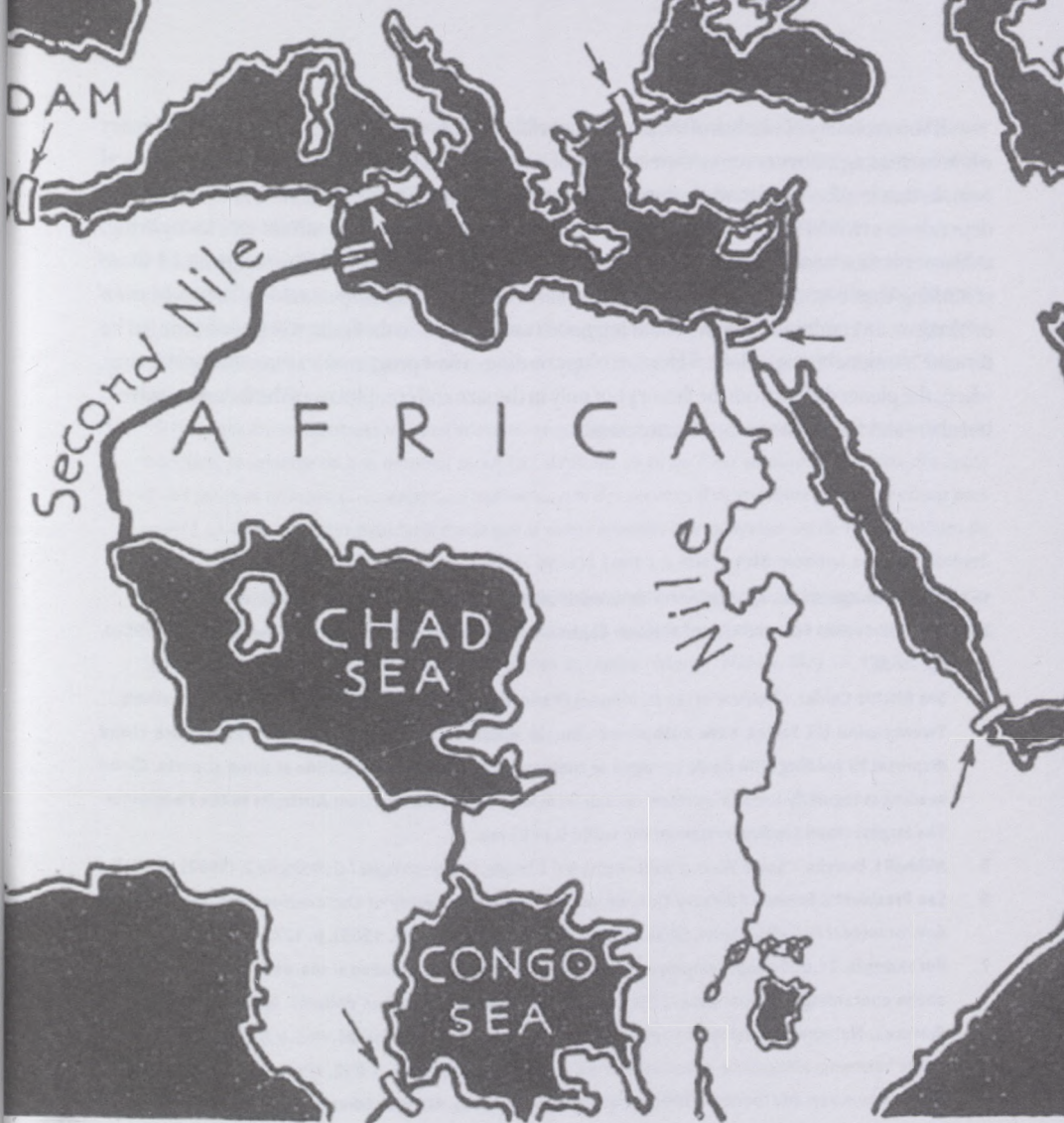
In 1955 John Von Neumann, a mathematician and physician and the father of cybernetics, told *Fortune* magazine that “Microscopic layers of colored matter spread on an icy surface, or in the atmosphere above one, could inhibit the reflection-radiation process, melt the ice, and change the local climate.” In 1961 Russian climatologist Budyko speculated on the possibility of changing the climate by spreading powdered soot on snow and Arctic ice from the air. The soot would lower the albedo (rate of sunlight reflection) and the surrounding air temperature would increase.<sup>5</sup>

In order to pre-empt the scandal that might be caused by these “unnatural” processes, in 1965 the US government gave itself the authorization to take compensatory measures should climate warming due to increased greenhouse gases such as CO<sub>2</sub> become critical. These compensatory measures did not include limiting the use of fossil fuels, but instead involved geoengineering solutions such as spreading particles over the ocean or in the atmosphere in order to create artificial “mirrors,” which would reflect more sunlight. The annual cost of these projects has been estimated at \$500 million, and it is claimed that they are less costly than all other government anti-global warming programs.<sup>6</sup>

It would be impossible to list here all the scenarios proposed to prevent climate change. One American study describes some of the most exotic.<sup>7</sup> It seems certain that some are beyond the experimental stage (e.g., spreading micro-particles and nanoparticles of iron on the oceans), and others have apparently been deployed on a global scale for several years (e.g., civil aircraft bouncing sunlight back into space using reflective particles of aluminum).<sup>8</sup> These operations are linked to huge computerized global climate system modeling projects. (As far back as 1945 John von Neumann stated that such models were a necessary for any form of climate engineering.)

In the 1970s the ARPA (Advanced Research Projects Agency) launched a secret multi-million dollar project, codenamed Nile Blue, to develop such models. In the 1920s L. F. Richardson had imagined a suite of 64,000 computers (the *Computing Theater*) designed to produce climate models and predict global weather patterns.<sup>9</sup> Richardson’s flight of fancy has been made reality by researchers at Los Alamos National Labs, who have been able to simulate a planetary sphere divided into 500,000 tetrahedrons with sides measuring 20 miles, in order to produce a model for the earth’s climate.

Disasters contribute to the development of global systems designed to control them. They contribute to the development of the craziest ideas. Old notions are given a second wind, such as the great project dreamed up by German engineer Herman Sorgel, who proposed building a huge dam across the Strait of Gibraltar to seal off the Mediterranean.<sup>10</sup> The Dutch already possess a \$2.5 trillion infrastructure (equivalent to all trade between the EU and the US) designed to protect the Dutch population from rising water. A global two-meter rise in water levels could spur gigantic projects to protect inhabited areas.



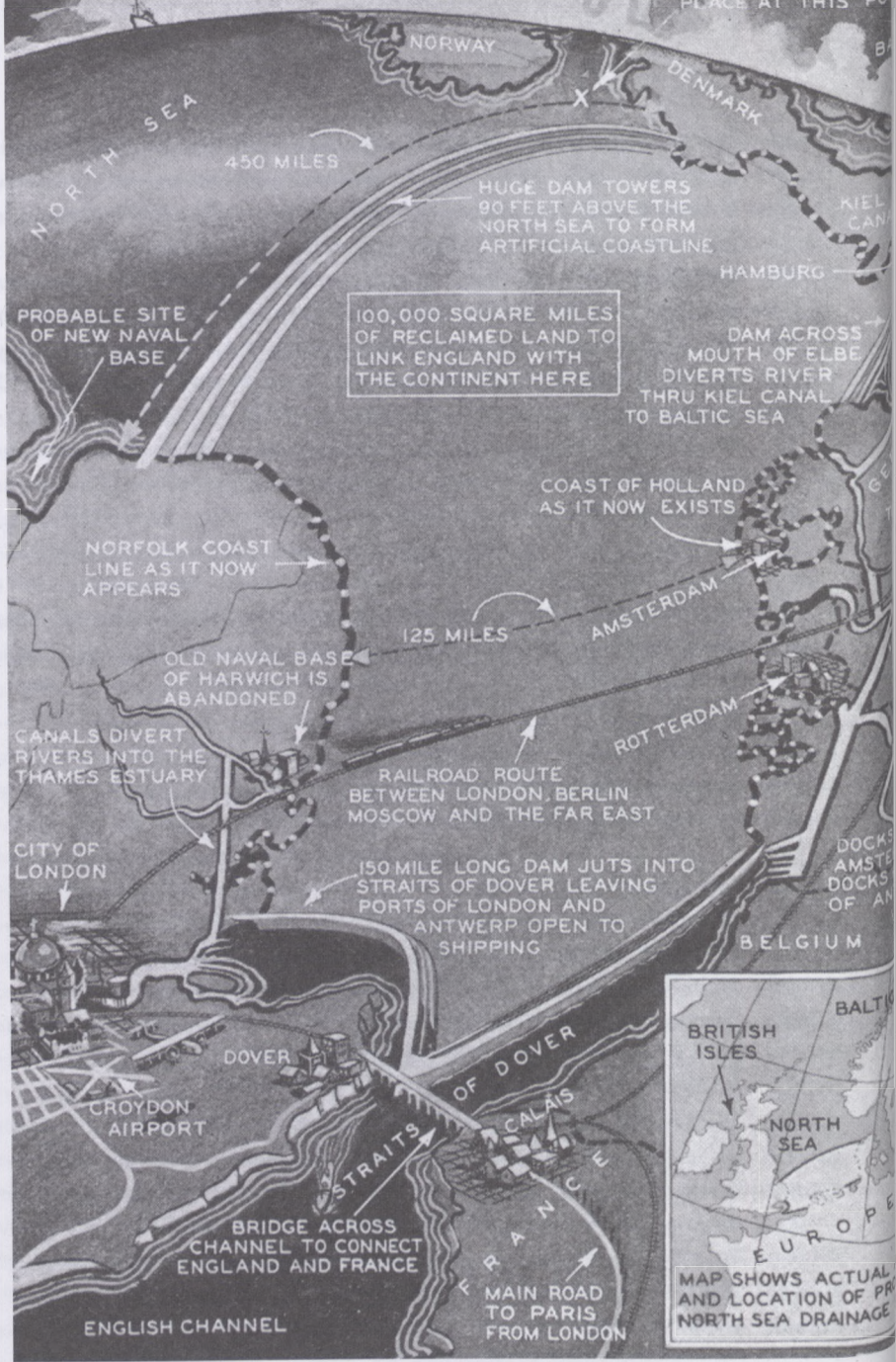
If the economy of war has often made it possible to kick-start creaking economic machinery while increasing labor coercion, the economy of environmental disaster could well be its identical twin, in that it offers work and new opportunities for industrial redeployment. Such an economy depends on a radical functionalization of the planet. Beyond any strategic advantages it may bring, a disaster is first and foremost a loss to be recovered. As an article in *Nature* suggests,<sup>11</sup> there is nothing to prevent us from considering the earth as a vast *input-output table of environmental exchanges*, an economic system producing goods and services in the framework of what might be termed “sustainable capitalism.” Here, ecology outlines a new program for systemic engineering, where the planet differs from the factory not only in the size and complexity of the factors involved, but also—and foremost—in its ultimate purpose.

- 1 Camille Rougeron, *Les applications de l'explosion thermonucléaire* (Paris: Berger-Levrault, 1956).
- 2 G.I. Pokrovskii, “On the Use of Nuclear Explosives for Industrial Purposes,” *Gornyi Zhurnal* 1 (1956), pp. 29-32.
- 3 See Ritchie Calder, *L'homme et ses techniques* (Paris: Payot, 1963), p. 236. Translation by the authors.
- 4 Twenty-nine US States have authorized climate modification programs. Low-temperature cloud dispersal by seeding with liquid nitrogen or compressed air has become routine at some airports. Cloud seeding is regularly used to increase rainfall from Israel to Russia and from Australia to the Philippines. The largest cloud seeding system in the world is in China.
- 5 Mikhail I. Budyko, “Some Ways of Influencing the Climate,” *Meteorologiya i Gidrologiya* 2, (1962), pp. 3-8.
- 6 See President's Science Advisory Committee, *Restoring the Quality of Our Environment. Report of the Environmental Pollution Panel*, (Washington, DC: The White House, 1965), p. 127.
- 7 For example, 24,000 people employed to maneuver 350 cannons installed at sea, each firing 120 860-kilo shells containing uranium dust, 250 days per year (cost: 100 billion dollars). National Academy of Sciences, National Academy of Engineering, Institute of Medicine (SEM). *Policy Implication of Green house Warming: Mitigation, Adaptation and the Science Base* (1992), p. 818. Also available online under: <http://www.nap.edu/books/0309043867/html/index.html>. Also see Edward Teller, Roderick Hyde, and Lowell Wood, *Active Climate Stabilization: Practical Physics-Based Approaches to Prevention of Climate Change* (paper submitted to the National Academy of Engineering, Washington DC, April 23–24, 2002). Available online under: <http://www.osti.gov/accomplishments/documents/fullText/ACC0233.pdf>
- 8 The danger of an alteration of global climate systems—while even a small experiment like Biosphere II has not been successfully maintained—has nevertheless been expressed by the US National Academy of Sciences: “Geoengineering options have the potential to affect greenhouse warming on a substantial scale. However, precisely because they might do so, and because the climate system and its chemistry are poorly understood, these options must be considered extremely carefully . . . Some of these options are relatively inexpensive to implement, but all have large unknowns concerning possible environmental side-effects.”
- 9 See Lewis Fry Richardson, *Weather Prediction by Numerical Process* (Cambridge: Cambridge University Press, 1922). In *The Mathematics of Chaos*, Ian Stewart compares numerical weather

prediction to a three-dimensional chess game. The tetrahedral grids form the board, the numerical values assigned to weather variables are the pieces, and tomorrow's weather corresponds to a position of the game. The governing rules are the equations of motion of the atmosphere. See Ian Stewart, *Does God Play Dice: The Mathematics of Chaos* (Cambridge, MA and Oxford, UK: Blackwell, 1990).

- 10 From the 1920s until his death the German architect Herman Sorgel (1885-1952) planned the construction of the world's most powerful hydroelectric dam, which he estimated capable of generating 50,000 MWe at the Strait of Gibraltar alone, once the Mediterranean Sea had been reduced by 200 m. Sorgel's "Atlantropa" was a macro-project whose name means "turning towards the North Atlantic Ocean" for hydroelectricity.
- 11 "*Si l'on payait réellement les services d'écosystème au niveau de la valeur de leur contribution à l'économie mondiale, le système de prix mondial serait très différent de ce qu'il est aujourd'hui. Le prix des biens et des services utilisant directement ou indirectement des services d'écosystème serait beaucoup plus grand (...). Nous estimons dans cette étude que la valeur annuelle de ces services est de 16 à 54 billions de US\$, avec une moyenne estimée de 33 billions de US\$ [soit 1.8 fois le PNB mondial actuel].*" Robert Costanza, Ralph d'Arge, Rudolf de Groot, Stephane Farber, Monica Grasso, Bruce Hannon, Karin Limburg, Shahid Naeem, Robert V. O'Neill, Jose Paruelo, Robert G. Raskin, Paul Sutton and Marjan van den Belt, "La valeur des services de l'écosystème mondial et du capital naturel," *Nature*, May 15, 1997.





# When Territory and Time seep out of the Old Cases...

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# When Territory and Time seep out of the old Cages...

**Saskia Sassen**

Time and territory are beginning to seep out of the century-old cages into which they have been pushed over the last few centuries by the project of making nation-states. We are moving towards centrifugal dynamics, away from the national capture of all key building blocks of social existence. From the unitary time and territory of the national to a multiplication of temporalities and towards a denationalizing of territory. In this process, time makes legible its embeddedness in many diverse orders, and territory makes legible its nomadic potentials. These are the bits of a new reality in the making.

The centuries-old project of making nation-states has come with high costs, expelled to the disadvantaged and less powerful—whether people or spaces. Now these expulsions are hitting back, like a boomerang. We experience this as disorder and crisis—as anomalous. But is it anomalous? The global climate crisis is partly what was exported into a putative no-man’s land as part of the making of capitalism. Such a no-man’s land does not exist—it is the atmosphere that surrounds us, or poor people and poor areas of the global south, or the disadvantaged in the rich countries who have been far more exposed to toxicity than the privileged. And the current financial crisis is partly an exporting of the costs of the extreme financializing of economies: the electronic space of finance and the escalating orders of magnitude made possible by digitization are disarming the time and space of the national.

The glaciers, once remote and immobile, are now at our door. And the multitudes of disadvantaged are becoming actors on a global stage. Neither the glaciers nor these multitudes can be kept in that putative no-man’s land which the powerful shapers of this economy thought they could rely on. As Stephen Kovats puts it, transmediale’s DEEP NORTH is “not a fixed location, but a paradigm transforming loss into a complex state of being and cultural development—an indicator of fusing location with global introspection.”

#### **neither national nor global**

For centuries national states worked at nationalizing territory, identity, security, power, rights—all the key elements of social and political existence. When the national state is the dominant format, the overarching dynamic is centripetal: the center grasps most of what there is to be had. Those nationalizing dynamics assembled the pieces of what we now experience as the national and the natural. And what happened outside the borders of territorial states—whether the impoverished terrains of former empires or the earth’s poles—was written out of history.

As territory and time seep out of the old nation-state cages, they begin to constitute multiple, partial, and often highly specialized assemblages of bits of territory, authority, and rights which were once firmly ensconced in national institutional frames. These assemblages are mostly neither global nor national. They cut across the binary of “national vs. global”—the usual way of explaining the current period. They can inhabit both national and global institutional and territorial settings. They can be local and denationalize bits of national territory. Or they can span the globe in the form of trans-local geographies connecting multiple, often thick, sub-national spaces—institutional, territorial, subjective. To think that the rise of WTO and IMF is the change is a mistake: they are but the foot soldiers of a far deeper transformation.

These often thick, sub-national settings are building-blocks for new global geographies. This, again, contrasts with the common notion that the global runs through supranational institutions that standardize differences and dilute the thickness of the local. In this sense, these emergent assemblages resonate with Nicolas Bourriaud’s notion of an altermodernity that “arises out of planetary negotiations, discussions between agents from different cultures” (from Tate Britain 2009 Triennale, London).

If globalities are constituted inside the national, then the immobile can be global actors—their bodies do not cross the borders of national states, but that does not preclude their being part of global subjectivities and politics. And powerlessness can become complex and thereby contain the possibility of politics, the making of the political. Localized struggles by actors who are not globally mobile are nonetheless critical for the organizational infrastructure of a globally networked politics: it is precisely the combination of localized practices and global networks that makes possible a new type of power for actors who would be seen as powerless in terms of conventional variables. While geographically immobile, these localized actors and their practices are also inflected by their participation and constitutive role in global civil society. Even if contained within an administrative unit of a national state, they are not simply local.

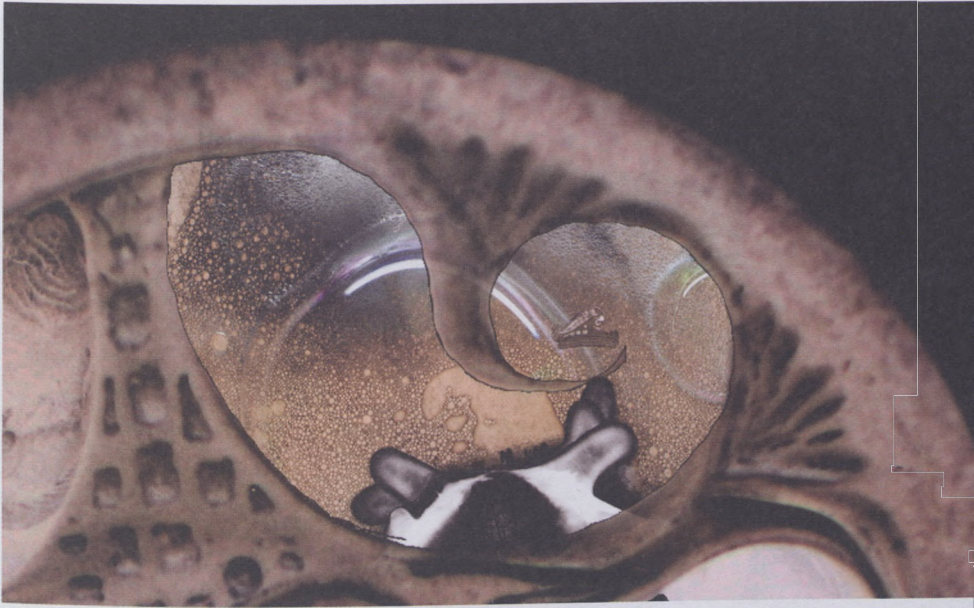
Thus the spatiality/temporality of globalization itself contains dynamics of mobility and fixity. While mobility and fixity may easily be classified as two mutually exclusive types of dynamics from the perspective of mainstream categories, they are not necessarily so. It is partly an empirical question: social practice as it develops will allow us to establish when they are and when they are not.

Today's catastrophic conditions—the melting of the glaciers, the radicalness of today's poverty, the violence of extreme economic inequality, the genocidal character of more and more wars—are often seen as part of the change. But it seems to me they are not. On the contrary, they are part of that putative no-man's land that absorbed the costs of the making of national-states and capitalism. They are floating signifiers, speech acts that narrate the current condition in a far more encompassing manner than standard narratives about nation-states and globalization. While these conditions have existed for a long time, today they are crossing new thresholds and, crucially, they become legible as the cages of the national begin to fall apart and reveal the landscapes of devastation on which they were built. "...Our over-cantilevered bridge cannot cope with the warming waters below," (Hilary Koob-Sassen, *Serpentine Manifesto*, London, October 2008).<sup>1</sup>

### **fragments of a new reality**

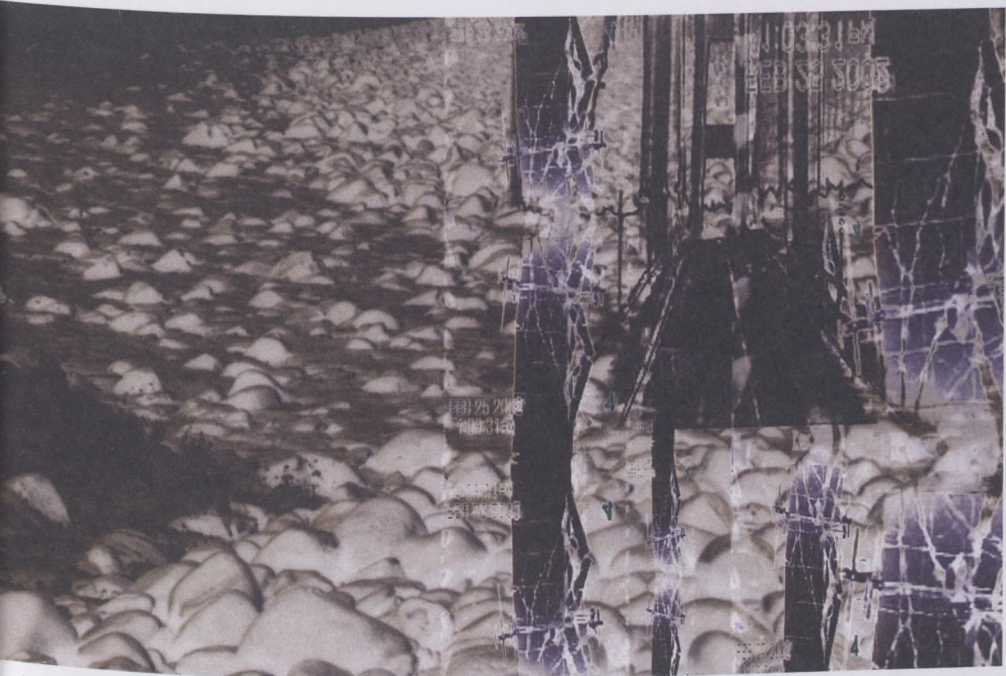
These emergent assemblages vary enormously in their scope and in their aims, from greed to the common good. At one end there are private, often very narrow, frameworks such as the *lex constructionis*—a private agreement paraded as "law"—developed by the major construction companies in the world to establish a common mode of dealing with the strengthening of environmental standards in a growing number of countries, in most of which these firms are building. At the other end there are complex entities, such as the first-ever global public court—the International Criminal Court—which is not part of the established supranational system and has universal jurisdiction among signatory countries. This court is, potentially, a revolutionary innovation: for instance, it means that citizens can launch global judiciary action without recurring to a supranational body—they can just go to a national court. Beyond the fact of the diversity of these assemblages, there is the increasingly weighty fact of their numbers—over 125 according to the best recent count.

Such assemblages are basically informal in that they are more than whatever formal institution might be involved: they are mixes of practices and actors and organizing logics. They are not part



**The Errorists**  
**Faith In Infrastructure**





of formal institutions and cannot be captured in terms of a specific legal persona. There is a difference between the formal persona that is a firm, a not-for-profit organization, on the one hand, and, on the other, the far more complex notion of an assemblage constituted through the mix of networks, platforms, territorial insertions, and the multiple transactions and users in play. Such an assemblage is not a formal entity. Nor is it a formal political actor as is the citizen or registered lobby group. Yet it can function politically, for example, in the added political weight electronic financial markets and global activists can derive from the assemblages of networks and transactions each constitute. Even if informal, these assemblages can function as a type of political “actor.” In the case of partly or fully digitized assemblages, they are informal even when the digital network or platform is proprietary, and even when it is a powerful entity. The network or platform needs to be distinguished from the actual multiple transactions and actors that constitute the networked activity and the organizing logic of such an assemblage.

Also familiar entities, such as cities, reveal themselves as transformed orders. The spread of asymmetric wars urbanizes armed conflict. This brings with it a nasty irony: when national states go to war in the name of national security, nowadays major cities are likely to become a key frontline space for combat. In older conventional wars, large armies needed large open fields or oceans to meet and fight, and these were the frontline spaces. The Mumbai attacks are part of an emerging type of urban violence. These were organized, simultaneous, frontal attacks with grenades and



machine guns on at least ten high-end sites in the central business district. It is a mistake to see this event as an exception or as particular to the conflict-prone India-Pakistan relation. A range of events, each with its own specifics, points to a larger dynamic. The bombings in Madrid, London, Casablanca, Bali—these are all localized actions by local armed groups, acting independently from each other yet clearly part of a multi-sited war. And then there is the US conventional military aerial bombing: it took only six weeks to destroy the Iraqi army and take over. But then the asymmetric wars set in, with Baghdad, Mosul, Basra, and other Iraqi cities the sites of conflict... for years.

There is a deeper transformation afoot also for cities. It is still rare, but it is popping up more frequently. It is as if the center no longer holds. Cities seem to be losing the capacity they have long had to triage conflict—through commerce, through civic activity. Confronted with a similar conflict, the national state has historically chosen to go to war. In my new research project I am studying whether cities are losing this capacity and are becoming sites for a whole range of new types of violence.

One question for a critical stance to the present is, then, how do we handle, how do we enable and make work the non-formal in a world that seems always to be pushing towards formalizing, with the explosion in intellectual property rights perhaps the most visible form of this? New political geographies are being shaped by the practices of informal actors. Activists of all sorts are constituting themselves in global networks that bypass the political geography of national states and that of global firms and markets. Sometimes this might simply mean the disposition to think oneself as part of a global project. Even if they do not move or cross borders, they are engaging in practices that constitute a form of globality. If globalities are constituted inside the national, then the immobile can be global actors. They are going past and beyond the national, and in so doing denationalize territory and reassemble it into novel formations.

### **in conclusion**

The proliferation of these systems does not represent the end of national states, but it does begin to disassemble bits and pieces of the national. Nor does it represent simply the expansion of the global. It produces a kind of “third space” for a growing range of operations, from economic to cultural to political. If you see through the eye of the national state, these assemblages look inchoate, disorderly, arbitrary. But they are actually the bits of a new reality that is coming into being. Central to the current transformation is the existence of complex assemblages, each constituting a specific spatiotemporal order. It is a foundational move towards a centrifugal dynamic—not the centripetal dynamic that constituted nation-states. This centrifugality begins to free time and territory from national cagings.

1 <http://www.artreview.com/profiles/blog/show?id=1474022%3ABlogPost%3A534986>

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# Africa Comes First - A Conversation with Rent Koolhaas

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# Africa Comes First – A Conversation with Rem Koolhaas

Lars Spuybroek

As we—the digerati—were slowly starting to dream of a “transarchitecture”<sup>1</sup> in the mid 1990s, “transurbanism”<sup>2</sup> had already been developing for a while. If transarchitecture was an architecture with a theory but no materializations, transurbanism was the opposite: exploding cities, in-between cities, city regions, city airports, cities without urbanism, growth without planning or theory. And while we were experimenting with wiring up geometries, global networks, and global economies were actually producing new cityscapes: not the homeopathic enclaves of New Urbanism but a migration of cities themselves, a migration within urbanism itself. In short, as computing got involved in architecture, media got involved in urbanism. Both saw it as their primary mission to save us from “design,” from the idea that the world needs personal intervention, either through happy subjectivity or cultural negotiation, either through an individual or a collective signature. Nothing is less true. When going from objectivity to materialist, no detours are required, only means of production. In this sense, I don’t think that learning generative computing is that different from going to Lagos.

I have been wanting to interview Rem Koolhaas for a very long time, because he is following this other vector—not so much one of computing but one of a world which, in a way, designs itself: *the world of the default*, of the generic, where the diagrams are not taken from other disciplines but are the actual operational forces of globalization, of mediated technology and modernization. Koolhaas himself has coined the word “¥€\$” for this world of neo-liberal compliance to global flows of capital. Koolhaas’ world is one of criticality and of resistance, while at the same time one of immediate confirmation and “surfing the flows.” As he said in an interview several years ago, “I am only interested in joining in.”<sup>3</sup> Obviously, this position is highly paradoxical, but that doesn’t need to be problematic in itself; the real question is if it leads architecture anywhere.

We can observe three specific types of such resistance in Koolhaas; the first is the *undesigned*, the second the *unbuilt*, and the third a resistance of the *unsaid*. Let’s look at them one by one.

### The Undesigned

The first resistance is more an acceptance: an acceptance of the ready-made, of certain matter and materials, of what he has on many occasions called “junk,”<sup>4</sup> something that has now begun to alternate between American junkspaces and African junkpiles.<sup>5</sup> I am especially interested in how, for Koolhaas, the image becomes a material; how facts become a material through photography (and subsequently how photos become part of design through Photoshop): and later in Africa, how materials seem to acquire a hold over the image in a continuous blurring and reprogramming. And then there is his clear obsession with product catalogs, which is an architect’s main source for materials to use—much architectural design consists of organizing things already designed by others, such as doorknobs, tiles, and ceiling and wall systems. The specific nature of the undesigned lies in the matter-of-factness with which Koolhaas selects materials from these catalogs, with a mixture of irony and indifference, where the catalogs seem to function almost as magazines, and are applied in design like magazine clippings. Realism has never been a style in architecture, as it has in the other arts. While resemblance might be an issue in painting, in architecture our buildings always look like someone else’s in one way or another—resemblance is a given. The generic is nothing other than this unstoppable flow of materials, of preformed stuff. Before Koolhaas, the real had a bad reputation in architecture; reality was always perceived as that which prevents an object from coming into being (while in philosophy it is precisely what causes an object to exist), that which resists an idea instead of producing it. In this sense, Koolhaas is much more of a producer than a director. Images don’t drop out of nowhere; there is an infinite availability of them. Images are ready; they always preexist, though his reuse is a critical, ironic one (since it is about the critical choice of a material *over another one*, not of it specifically). His realism isn’t merely a case of good old-fashioned Dutch objectivism but an acute sense of machination and technology, of how social systems collaborate with machines to produce the generic, the default, and the standard. For Koolhaas, the cultural act of architectural design isn’t about adding idiosyncrasies to an existing stream of forms; rather, it involves a certain consciousness of the technological force field of modernization itself. All desire is channeled through this system. He is not only more interested in how things are than in what they mean, but also in how they become real, and how the real is produced.

It should be clear to us that modernity has now reached a stage beyond deconstruction, one in which its language has been completely erased in favor of a pure technologism without progress or ideology. Modernity now means an increase in complexity and dimensionality brought about by more and more networking.

### The Unbuilt

The second resistance lies in the *unbuilt*, which concerns his thoughts on concepts, theory, statistics, the potentially very productive separation between theory (AMO) and practice (OMA), and how one haunts the other. Theory is not a basis for practice but runs parallel to practice; it is a practice in itself, highly organized, almost more so than the architectural office. People like Sanford Kwinter, Robert Somol, Michael Hardt, and Scott Lash are taken aboard not to ghostwrite the production but to become involved in the production itself. Koolhaas is not against intelligent theory, but he is against the idea that thinking exists only outside architecture and that you must shop for intelligence elsewhere to be able to understand or design buildings.

Theory is generally a safe haven, a leafy campus where so-called true progress is made, while building is a sort of half-heroic, half-impotent attempt to “get it built.” Such halfheartedness has always prevented Koolhaas from staying for too long in the USA, where architecture is on the campus and building is in the cities. I think his strategies have often been more concerned with “getting things unbuilt”: pushing the theoretical moment precisely over the threshold at which a design must be accepted by a board, a jury, or a private client. This is exactly why he’s so interested in politics and power, in pushing a design too far for theory to cope with it, but also making it difficult for juries to fully grasp and discuss, or too hot to handle for clients, who are often caught in similar situations of high-risk undertakings. Koolhaas’ theoretical radicalism occurs precisely *where the object flips into the real*, and not before it becomes real, as is generally the case with theory (in this respect, his work shows a surprising lack of theory). All conceptuality concentrates on the mechanisms by which the designs are tested for operability. This is not the same as a radical theory, since that doesn’t mean anything if it doesn’t get built (owing to bad luck or bad taste); rather, it is the theoretical moment that lies precisely in the mechanisms of acceptance. Koolhaas’ “realism” is not a pragmatic way of dealing with radical theories but a theory of radical pragmatics itself. In short, the projects deal much more with strategy than with design, and therefore the—statistical—diagram has taken a very important place in this strategy, since it objectifies choice and approaches a client not as a body that likes or dislikes certain architecture but as a decision-making body, a body of planning and politics. The diagram always maps the forces of realization and therefore positions itself in the preparatory stages that precede the design. Koolhaas has one of the most impressive unbuilt oeuvres of any contemporary architect. Of course, many architects have unbuilt projects, but nobody ever would have heard of, for instance, Utzon’s Sydney Opera House if it had not been built, since its radicalism was a matter of design, not of strategy. Koolhaas has hardly ever accidentally lost a competition; his losing entries have almost always had to do with the political mechanisms behind production. This is probably why he always wins now, turning things upside down again.

## The Unsaid

Of course, if one kind of resistance lies in the choice of materials and a second in conceptual strategy, the third logically concerns the materialization of concepts. Why does Koolhaas talk so much, but never about architecture? Why doesn't he ever mention aesthetics? We can't be sure whether this is resistance; it certainly resists architecture, but it might be that the fact that what he says has nothing to do with his designs or buildings actually enables him to build so much. So let's call this the unsaid, because the hinges between Koolhaas' recording and production techniques are somewhat hidden, and often secret. If one places theory on one track and practice on another, that is indeed "a strong position," as Koolhaas puts it. But many questions naturally arise, especially about architectural design, because when all thought is concentrated around the undesigned and the unbuilt, the question is how these are rechanneled and remobilized into design practice. To leave a huge gap between theory and practice might be productive; it immediately calls methodologies and aesthetics into question, because even if these are suspended or outsourced, they are still present and must be relentlessly interrogated and exposed.

At a certain point, we had the chance to discuss some of these issues, especially with respect to his visits to Lagos, the capital of Nigeria, which constantly balances on the edge of complete chaos. Again, the question arises how such visits relate to architectural design,<sup>6</sup> but we will discuss that in the final part of this essay. Let's look at the short but intense interview first.

LS: First there was the USA, the "badly designed built," then Asia, the "quickly designed built," then Africa, the "undesigned built."

RK: [Laughs.]

It's really amazing to go to the US first and then Africa. Baudrillard did it the other way around. The French intellectuals always did Africa first and ended up in the US later. You ended up in Africa.

Well, for now.

Speaking of Lagos, what really interests me is how you gather material. The photos from Lagos are quite different from the ones you did for Atlanta or *The Harvard Guide to Shopping*.

What do you mean by "different"?

The ones on the US are always at eye level—they're of signs. The ones from Africa are from the air—they're of structures.

There are also lots of pictures in the Lagos book that are from the ground. I was there with Edgar Cleijne, a Dutch photographer who has been involved in Africa for 20 years and had been traveling there for all those years taking pictures, and I discovered him at a certain point. I started traveling with him from the very first. He really showed me the way. Video by itself often works much better. Photographs are much too confrontational; you're always creating such a moment. There's much less paranoia with video. Don't forget, Lagos is really very dangerous; you feel that every situation has a sort of built-in limit.

And those aerial photographs?

We borrowed President Obasanjo's helicopter and flew over the city for two days.

Do you write in between? If you're continuously taking pictures, how do you get around to writing?

I'm always making notes, you know that.

When are you going to finish the book?

I'm going to write this summer. Three times, for three weeks at a time, I'll take time off to write.

Do you know yet what it's going to be like?

No, but sort of. Of course, I gave some lectures. Lectures are the skeleton, the main structure, but I don't know yet what kind of tone I'm going to give it. I thought I might make three totally different voyages of discovery out of it that arrive at totally different conclusions, and then a sort of integrative synthesis. It's going to be something like that. I only know how to do it once I've started. I'm taking the next three months off, more or less. And it took a very long time before I understood myself what Lagos was about, but I see it now as a sort of rest stop that was actually very well planned. A number of planners were important—Doxiadis, and Julius Berger, who built the autobahns in Nazi Germany. They went to work there and actually put all the emblems but also the practices into a kind of infrastructure, and the culture went into a kind of reverse and became poorer and poorer.

How do you see these self-organizing structures?

They look like self-organizing zones at first, but later I slowly realized that it's not simply self-organization, because it all takes place within the former infrastructural projects of the modernization project. It is, in fact, a continuation of a culture, and these things would not be possible without that network. All that misused infrastructure enables the society to keep going. In other words, a drive-in would not have been possible by accident, without the best operational strategies of Western planners. To me, that's what's fascinating.

I also saw diagrams of those areas around the highways.

Yes, I made other drawings of them too. We called them friction zones. They're all around intersections, if you look closely, and the crazy thing now is that it's getting much richer because of that and linking back to that modernity right away. It goes back and forth. When there's more money, it disappears again, and it gets planned, and there's more public space and gentrification.

Green spaces everywhere?

Yes, but it's mainly the introduction of the concept of upgrading. Cleaning up public space so there's simply no room anymore for all those spontaneous phenomena. They eliminate the friction, force it out, and so it's forced to go to other places. A kind of Potemkin activity. There are massive investments, massive profits from oil. That made possible a really cohesive mobilizing policy, and just at the moment that it's finished, the whole culture goes downhill because of corruption, and there's a complete evaporation of the public sector and everyone is thrown back on their own resources. So now an endless series of negotiations is necessary in order to survive, and the more poverty, the more of those there are. And the only way that is possible is through the flexibility of the infrastructure, thanks to the slowing down of the infrastructure, which no longer functions as circulation but as a kind of area of exchange, a market, in fact. What's so fascinating now is that, for example, in some places traffic is moving faster again, and so that chance for exchange is gone again. There is then invariably more crime, because slow exchange is simply no longer possible and other forms of exchange must be found.

Architecture has become a sort of slow infrastructure. It would be very interesting to study the programmatic cycles of that.

It is a very cohesive situation of self-organization and organization, and precisely because of that, it becomes a kind of mega-organization, which concerned me too in the same way. I think that's the most important thing, and it's a phenomenon I've felt coming for a few years. First, there was the rhetoric and the whole story that planning was no use anymore, but this clearly needs adjusting, because planning, although it never was as useful as you thought it was, nonetheless in its misuse or other experimental use gets new meaning again. In any case, these situations are unthinkable without planning and the possibility of planning.

How are they reacting to that in Nigeria?

We're trying to penetrate Nigerian society in all sorts of ways. We've been on Nigerian television a couple of times, on a kind of breakfast show. And we're also guest-editing a Nigerian magazine, so that we, too, get a kind of infrastructure; and we have a permanent person from Nigeria working here at the office, so if anything happens we have our own way in there.

First you moved along with, photographed with, all the experimentation and friction zones that arose whole, bottom-up, and then you ran into classic top-down interventions again. How do you feel now about all the gentrification there?

You could be critical and say it's a cosmetic operation and it's not authentic enough, but of course it is a kind of racism to deny countries their gentrification. And at each moment it's so different; there are phases. I find that amazing. For four years now,



I've been going there for a week every three months, and every time it's completely different. The total flexibility is amazing. Really amazing.

What you run into there is, of course, what you mentioned when you wrote on the Lagos project in *Mutations*: "We think it is possible to argue that Lagos represents a developed, extreme, paradigmatic case study of a city at the forefront of globalizing economy." Lagos is full of recipes, inventions. It seems as if you've investigated two forms of flexibility. The first is America, stacked floors and grids, where it's always a Cartesian choice. And here, you describe a system that is clearly different, open-ended. It is a much more open construction, and at the same time much more structurally built-in. Almost an urban-planning typology. You could argue that this is a new step in your work.

Of course, that was already there, in Melun-Sénart.

For me, that was too much of a gridded space, where you compose using the emptiness in the grid. Africa follows much more of a field logic. "The material logic of Lagos is convincing," as you say. New spaces are being invented there. The emptiness in Africa stands in open connection to an overloaded infrastructure; in a grid, this is necessarily closed off.

I think your arguments are more interesting than mine.

What fascinates you in America at first irritates you later. This is very clear in the junkspace text.

I think it's a kind of political move, more than anything else. I went to America for the first time in 1972; then it was seen as absolutely scandalous even to go there, and I think the book—*Delirious New York*—was actually a kind of marketing research. For a while, it was interesting to see where it would lead, but at a certain point I think a sort of political indignation came across, and also a kind of unease about the lack of control in your own life. I didn't want to endlessly be singing for the system, and so it was essential to go to Africa in order to develop more initiative and power in Europe. I think that America was power, and that in Europe you can build up power. No one talks about power. But let's talk about junkspace. What do you think of that text?

Fantastic—pure Hunter S. Thompson, Koolhaas on acid. It conveys a fascination with the subject more than it presents a critical argument with respect to junkspaces—which is good.

Do you find it credible that junkspace is described as something that has great influence on present-day architecture?

Yes, of course. The book has been attacked here and there because it supposedly generates no theoretical arguments, it's not a new Learning from Las Vegas. That's ridiculous; that's its power, I think. It has enormous influence; at UCLA suddenly they were all using escalators in their designs; even the very curvy designs are populated with them, and with Replascapes and gambling machines.

## Junkspace and Junkpiles

In American junkspace all materials are cast from images. You take a Venetian wall, create a mold of it, and cast it in any material. Everything is overdefined, but the connections are empty. In the African junkpile all images are assembled as materials. You take a few wooden crates and a bit of chicken wire and make a wall out of it. *Everything is made of something else*; everything is undefined except for its connection to other things. Objects in junkspace are garbage before they enter circulation; objects from the junkpile are never taken out of circulation.<sup>7</sup>

It is absolutely clear to me that Koolhaas' "fact-finding missions" are not simply ways to escape overloaded European history but also part of his cinematic design methodology of cutting from one place and pasting somewhere else. His recording techniques for hunting down the undesigned all over the world are not just a kind of architectural war journalism but a design technique. This is why Koolhaas' books are like obese magazines: the essay always appears between hypnotic series of images (like a photo shoot with the latest model, or ads), and we hardly ever get an image as illustration for the text. It's also why most of his architecture has something in common with graphic design. All segmentation stems from this—a chipboard wall part right next to a piece of corrugated acrylic sheet: if you don't want to design, just exhibit the whole catalog. All the disparate selections stem from this traveling, this sequencing, this concept of montage and layout: choosing one material for this façade and another for that one, a tree trunk for one column and a industrial steel beam for the next, Cor-Ten steel, visible concrete, chain link—it doesn't matter. Well, quasi-doesn't matter. But the edges are like the edges of photographs, rectangular, and the assembly always comes out as a grid. If you want to use images as materials, it is not the middle (the image itself) that is of importance but the edge, where it functions in connection to others. In a grid nothing connects. The images are like addresses: there is no friction, no tension, no adjacency. In fact, you get the feeling that the real is absent and over. It is not an *ontological real*, where we meet things and facts in person. We are served Polaroids: it is an *iconological real*. With Koolhaas, images never overlap or blur each other out; they never create a space, except for the grid itself. A problem therefore crops up, one we often see with his followers too: an archival indifference, a blind additivity. If "the real" requires photographic and videographic engagement with the world, a stripping and skinning off of its imagery, in the end you merely come home with trophies. You end up a collector, an archivist of the real. This means the real has already happened—it's over. As it becomes impossible to remobilize these images, design becomes a process of quoting from the world of the undesigned. It is a powerful message, but a message nonetheless. And it is no longer diversity, variation, and endless possibilities that mark a moment of actual experience, but the stacks and rows of the archiving system. At its best, design becomes cultural criticism, highbrow consumerism. One cannot suspend choices by drifting from one image to another, gridding all choices and making hesitation or resistance the most sublime choice of all. The implicit restlessness and images' immediate "readiness" when observed in the real are not at all the same as availability in a catalogue, and such restlessness gets lost entirely in the matrix of choices in a spatial grid.

Before we dismiss Koolhaas' work as pure gridding and segmentation only, we should realize that during the mid 1980s this sense of discontinuity of materials emerged along with the idea of the continuous floor surface. *Where the images were precoded, signified, and consumerist,*

*the floor became decoded, vague, and activist.* This separation between what comes up from the floor and down from the ceiling has always been pervasive in Koolhaas' projects. As the floor slowly lost its architectural definition and clarity, it became an urban field of connectivity where the programmatic wreckage was exposed. The plan was doing everything the elevation wasn't. *All action was continuous and connected; all perception was segmented and interrupted.* Basically, America is in the elevation, and Africa is in the floor. Koolhaas has arguably been trying to move away from this distinction, to complicate and intertwine the two, to work more on the complexity of volumes, to somehow make the surface affect the volume, make the images and their relations affect the massing. But of course, the organization of materials and material organization are not the same at all. In America movement is between images (it is a flow of images) and yields simple gridded structures. In Africa, movement is in images and yields complex proliferating structures. So the real question is one of structure, not of imagery and signs.

Of all the critical architects<sup>8</sup> only Koolhaas has seriously worked with an engineer. When he started working with ARUP/Cecil Balmond, nobody else was doing so, and most were still getting engineers to fill the space between the roofing and the ceiling with steel or concrete. Not Koolhaas. His notion of materiality, however thin, has led him into collaborations that have moved engineers up to the start of the process rather than the end, and instead of waiting for the architects to initiate the design, engineers began conceptualizing their work. There is an evident constructivism in Koolhaas' work; all his skyscraper experiments, from the networked Togok Towers in Korea to the "skyhook" building for Central Chinese Television in Beijing, relate directly to El Lissitzky's *horizontal skyscraper*, the *Wolkenbügel* of 1924. How to live in the sky? How to move the street into the sky? These questions are much more interesting than the earlier questions of how to occupy a segment left open in a grid, because that void is neutralized by the system, while this void is genuinely constructed and evokes another form of life. This concept of the void is a crucial issue: (a) is it left open as a leftover (as in Exodus or Parc de la Villette), or (b) opened as an in-between (the Seattle Library), or (c) open in the structure itself (like an attic)? The first void is completely defined but absent and empty, while the last is completely undefined but present and materialized. In this sense, there is still a huge qualitative difference between, for instance, Louis Kahn's Philadelphia City Hall, where the void creates a structural transformation and all diagonal columns become interrelated, and the Seattle Library, where the diagonals are incidental ("episodes," Balmond calls them) and simply leave a space at the edges of the building without affecting anything substantial. Kahn's project, though regular and crystallized, is much closer to Frei Otto's system of relaxation of structural members, which create a new network<sup>9</sup> through agency, which is a true constructivism in the sense that the form is constructed during a morphogenetic process of "form finding." You can't get any more readymade than Frei Otto's material computing techniques. It is a mobility of members during a process that doesn't break away from structure but actually creates structure through differentiation. Such constructivism is a positive act, not one of negation. The Seattle Library's book deposit, the black box in the interior of the building, is a direct descendant of Eisenman's deconstructed houses. It operates on the same techniques of cutting and shifting, completed by an exterior wrapping, though it is unclear how exactly the horizontals of the internal shifts create diagonals on that exterior surface. With Kahn, the diagonals saturate the whole volume; as with foam, solid form and open space start

to merge. If one compares a typical deconstructivist tower, such as Eisenman's early 1990s Max Reinhardt Haus (which is pure criticality materialized, "anti-phallic"), to Kahn's Philadelphia City Hall, it becomes clear that Koolhaas' Seattle Library takes an in-between position: it has enough constructivism to move away from pure criticality but lacks enough material agency to make it to the level of Kahn's masterpiece.<sup>10</sup>

The central question becomes: if we have an industrial world, a world of the composite, how can we relate that to an African-style readymade connectionism? How can we find techniques in which material organization informs the organization of materials? First comes Africa, then the USA. Africa is the software, not because of its presumed authenticity but because of its empirical computational logic: real-time solutions. Koolhaas' Lagos book is full of organizational structures in which objects and flows of exchanges interact and create complex structures that far exceed the possibilities of the grid. Often they are flexible occupational strategies which can quickly fill an entire space and still connect to existing infrastructures: dotted cloddings, stranded affiliations, spiraling alignments, fan-shaped structures, laminations, delaminations, splits, curlings, detours, etc. All of them are self-organizing figures which, as Koolhaas repeatedly states during the interview, are intricately connected to the infrastructures of planning. So it's not some kind of revisited ad-hocism or megastructuralist plug-and-play, but an intensive spilling over of an infrastructural system, one of internal border situations, in which peripheral effects are successfully adopted at the center of a system. It is a field logic that blurs the boundaries of linear structures. Borders are turned into fields, blurred by continuous reprogramming, and reprogramming is constantly stimulated by the erasing of borders. According to Koolhaas, it is precisely this connection of friction zones to the infrastructural network that makes Lagos exemplary. For that, it is necessary that the structure is provisional—not that it is left open and empty, but that there is a structural overlapping and blurring that is always under pressure, always in a rhythm of redefinition. This Lagos is, in a sense, more structuralist than the anthropological Africa brought back to Europe by the Forum group in the 1950s.

The unsaid now becomes this: instead of using Calcutta ("I believe in Calcutta minimalism, not in Swiss Minimalism"<sup>11</sup>) and Africa as ethical and anti-aesthetic categories, we should consider them as aesthetic categories. What's important is how life operates, not what it means or signifies. It is simply not enough to decorate the Hermitage with Cor-Ten steel (which would be absorbed by ¥€\$ without hesitation) for the sake of criticality: only aesthetic decisions of true agency count. Instead of using ¥€\$ to say no, we should make indigestible images: images that can't pass through the media, images that are no longer images but have become structures and opened up to life. Koolhaas' project is on the verge of breaking away from the semiological, but it hasn't arrived at an ontological position just yet—quoting from life is just not the same as living.

1. *TransArchitectures* was the title of a series of exhibitions on digital architecture organized by Odile Filion and Marcos Novak in France in 1996–7.
2. *TransUrbanism* was the title of a symposium on the relationship between new media and city sprawls organized in 2001 by the V2\_Organisation. Speakers were Edward Soja, Rem Koolhaas, Scott Lash, Mark Wigley, Arjun Appadurai, and Lars Spuybroek. See *TransUrbanism* (Rotterdam: V2\_Publishers/NAi, 2002).
3. Anna Tilroe, *Het blinkende stof: Op zoek naar een nieuw visioen* (Amsterdam: Querido, 2002).
4. Rem Koolhaas et al. *Content* (Cologne: Taschen, 2004), pp. 162–171.
5. Rem Koolhaas et al. *Mutations*. (Barcelona: Actar, 2000), pp. 650–720.
6. We have to keep in mind that virtually all Dutch architectural theory is of an urbanist nature. The Netherlands has hardly any relevant architectural history before the 20th century; one won't find any Palladios, Ruskins, or Schinkels there. Dutch architecture started with the Housing Law of the early 1900s, and ever since all architecture has viewed itself as mini-urbanism, and all buildings as mini-cities. The fact that Koolhaas' main occupation lies in the production of architectural form but his main theoretical obsession lies with cities is therefore no accident; it is a typical Dutch trait of being uncomfortable accepting architecture as a cultural act in itself. His ghostwriting of manifestos for Manhattan (*Delirious New York*), Atlanta (*S, M, L, XL*), Dubai (*Al Manakh*), the Pearl River Delta (*Great Leap Forward*), and Lagos while maintaining silence about his own architectural designs—what we here call “the unsaid”—might seem a professional incongruity of the first order to most, but not to the Dutch. It becomes particularly startling when we realize that these cities have no need of urbanist theories anyway (which is probably why they are applied to architecture). His main urbanist theory, however, that of the Generic City, which he qualifies as an urbanism of “multiple choice with all boxes crossed” (*S, M, L, XL*: 1253), does not apply to Lagos.
7. For a discussion of the difference between garbage and junk, see Scott Lash, *Critique of Information* (London: Sage, 2002), p.152.
8. These include people like Peter Eisenman, Daniel Libeskind, Rem Koolhaas, Frank Gehry, and Coop Himmelblau—all architects of “deconstruction” who create architectural form by breaking away from normative structure, in which all elements are defined by their linguistic coding. The act of deconstruction is therefore a critical one, one of analysis, of neutralizing meaning through dislocation, which is inherently an astructural act. But the move away from 1950s structuralism as a system for producing meaning leads to a fallacy, since buildings have to be constructively coherent. For a more extensive discussion of the relationship between deconstruction and our constructivism, see “The Structure of Vagueness” in *The Architecture of Continuity* (Rotterdam: V2\_Publishing, 2008). Koolhaas is the only one of this group to have incorporated construction as a positive act, i.e., something that itself adds to design and therefore moves away from criticality as sheer negation.
9. For a discussion of Otto's form-finding techniques, also see “The Structure of Vagueness.” For an explanation of Otto's tower, see “Machining Architecture,” also in *The Architecture of Continuity* (Rotterdam: V2\_Publishing, 2008).
10. I think the clearest distinction one can draw between the two is that Kahn's design is tectonic and Koolhaas' is essentially stereotomic. Many of OMA's designs are generated through the hot-

wire cutting of polyurethane foam, which is a purely stereotomic way of working. Only when these techniques are applied to large-scale massing, as in very large projects such as the Togok Towers and the CCTV Towers, does stereotomy become tectonic again, since the volumes start acting as structural members themselves. Also see my conversation with Arjen Mulder, entitled "Steel and Freedom," in *The Architecture of Continuity* (Rotterdam: V2\_Publishing, 2008).

11. Rem Koolhaas, in an interview with Bart Lootsma, "Rem Koolhaas: In Search of the New Modernity," *DOMUS* 800, January 1998.

# Traversing the Route: From MediaMarkt to Cameroon

**Annet Dekker in conversation with Esther Polak**

Esther Polak develops her projects around the notion of space. By using new technologies like GPS and simple robots she aims to reorient and shift perspectives on issues of cultural and technological development.

Traversing the countryside is an important aspect in your work. How do you see the relationship between the urban and natural?

I think that as a “city person” you always have to create a construct for experiencing the countryside, because it is not your “home.” My relationship with the non-urban has been a strange one. My fascination for “the country” began when I was growing up in Amsterdam, where we lived in a top-floor flat. My mother found city life particularly condemning and jumped at any opportunity to escape to the country. The flat did have a small balcony, where we tried to grow all kinds of plants, but with very mixed results. To escape the city we would rent a house in the country, go on walks and bike rides, and inevitably we had to join the NJN (an association for young people interested in nature and biology). The aim was to discover nature, and we would work and sleep in a cowshed full of all kinds of apparatus, microscopes, dead birds hanging on the wall, pieces of wood, leaves, and all kinds of other paraphernalia. We felt as if we were working at a cross between a science laboratory and a working farm.

These experiences were seminal to my experience of the landscape. At the NJN we always carried a little box with us when we went out to collect samples. The group was divided up into various teams—the moss team, the plant team, the bird team, amphibians, insects, fungi, and so on. The groups were very much linked to the seasons, of course, so you had to switch around to some extent. The important thing was that each team had its own way of looking at the landscape: one group would use binoculars, the other an identification chart. This way of mediating the landscape—taking a microscope to open up the world around you—is a strange way of doing things. It creates a tension between, on the one hand, the primal directness nature as the place we all come from—and on the other hand, nature as something that is overly organized, at least in the Netherlands. Everywhere you look there are signposts and information plaques telling you how to experience the natural world around you: all kinds of signs telling you how to look.

In addition, I have a very poor sense of direction, and I am pretty much dependent on maps to find my way around. This also effects the way you experience the landscape, depending on the map you are using. For example, if you’re walking in a wood with a map that clearly indicates where the nearest motorway is, you’re bound to keep hearing the cars, whereas if the road is barely visible you’re less likely to hear them. Each time you use a different map your experience is different, because you experience the surroundings differently. That moment and that experience are like a machine that is set in motion, and this is what fascinates me: it’s what I’ve always been looking for. I am constantly in search of new ways to experience the landscape, especially in my work—from identification charts to microscopes, to binoculars, to nature maps, to GPS.



The experience of doing it yourself is often very hard to recreate. How do you deal with this in your installations? How do you translate that moment of amazement for the audience?

That is a big challenge; I try to make my installations more physical by creating a sculptural, spatial experience. For example, by making a network of sand prints in the space. During one of my presentations I explained very briefly what it was about and then got a robot to spread out the sand, making a drawing. The resulting sand drawing and the way the robot scattered the sand drew an immediate reaction from the audience: right away they envisaged how the cows in Cameroon behaved. People then come to me with more detailed questions, but I am not sure whether to respond, because in doing so I think I'm breaking with that moment of amazement, and the work turns into an almost anthropological or social research project. My interest is more in the experience than in the idea or the issue of authenticity.

I find this way of presenting very useful at the moment. The robot itself is also much more physical than the way I used to work. A robot might seem very practical and considerate, but in fact it is extremely stubborn and often refuses to do what you want. But for me that's the power of the artistic dynamic. For me it's a challenge to make the static digital technology more unpredictable and physical.

You studied fine art at The Hague School of Art. How did you make the step from painting to new media?

It was an interesting journey. At the time I started painting because I had a rather naive love of the landscape. In the Netherlands the landscape has always held a special position in the fine arts due to the long tradition of landscape painting here. At art school a lot of emphasis was placed on the autonomy of the image. The image should speak for itself, and my idea of mediation did not fit in very well with this. At the Rijksakademie (for the Arts in Amsterdam) I studied in the graphics/new media department. I found it hard to relate to the autonomous ethic of fine art. However, working for a few years as a DTP worker for various newspapers was an eye-opener for me. I discovered that a story's meaning could change completely depending on the photo you published next to it. Essentially you can use a random picture with any story as long as the caption is right, but the meaning of the photo and the text will change each time! This fitted well with my idea of transformation, how different technologies can change our experience of the same thing. In retrospect the objective facts and reality that come along with every new invention turn out to be subjective after all. That is what makes working with new technology fundamentally different for me from working with oil paint.

I was interested in GPS from the first moment it was introduced to me, because it seemed to be extremely realistic. It told an almost technological truth about an event that had not existed before it was made visible with GPS. This stems from the fascination I have with microscopes and binoculars. Suddenly you experience

things on a different scale—what you saw just as a plant suddenly becomes much more, it's own biotope—it's a scale-changing trip, an overpowering machine that makes visible new possibilities and avenues.

Working with new technologies is still contested in the traditional arts. Do you believe that “new media” has its own status?

The arts have always had an obsession for new technology, and that will never change. I think it's important that this new art form has a relationship to established art history, but I would not claim that working with oil paint, photography, and GPS is all one and the same. Because it is not: artists have been experimenting with oil paint for centuries; photography has just ceased to be a new technology; and GPS and all sorts of other technology are just on the crest of the wave.

For me the essence of a new medium or a new technology is about developing a new way of looking at the world and how you experience it. In ten years time I might not be interested in GPS anymore, because a new technology will turn up that deals with mediating information in a different way. More importantly I believe that working with new media really is different because it comes from the “normal” world and was not specifically developed for artistic production. There's a big difference between going to an artists' supply shop and going to an electronics store like MediaMarkt to buy your materials. In the artists' supply shop you are among (amateur) artists, but at MediaMarkt you are surrounded by regular people with all kinds of jobs and interests: you are at the center of society. If you take the materials and their origin seriously, the work you make will also have a relationship to that society.

I am interested in the impact of new technology, particularly in terms of how we experience space. The social or political consequences of surveillance technologies (such as GPS), for example, are part of the work, but they're not my primary interest. As a “new media” artist I try to develop a relationship to the place of technology in society. This involves developing a certain level of engagement, but that doesn't always entail being critical. It is essential, though, to avoid negating your audience's critical position. In my work I offer an open approach that gives the audience a great deal of space to draw their own conclusions.

Your work is often cited as exemplary of a politically and socially critical approach. Andreas Broeckmann, for example, posted the following on a locative media mailing list in 2004: “I have always understood the term ‘locative’ as pointing in both directions, the potential for enriching the experience of shared physical spaces, but also fostering the possibility to ‘locate’ i.e., track down anyone wearing such a device. This does turn the ‘locative media’ movement into something of an avantgarde of the ‘society of control.’ I believe that people are aware of the ambivalence, but I am wondering at which level this critical aspect is brought into an



**Esther Polak**  
**NomadicMILK,**  
**Nigerian version: route comments**  
**by truck driver Audu Nagero**

arts project.” He goes on to mention your Milk project as an example: “This is not to say that artistic work in this field is impossible. I believe that, for instance the Milk project by Polak/Auzina might be a clever way of approaching the issues by simulating the tracking of trade routes.” What do you make of this? What do you think about a comment like this that would appear to go beyond your primary goal of portraying how the perception of space changes with new technologies?

It’s true that many people interpret the project this way. That is fine, because it is an important element, but for me it is secondary. This is even more apparent in the NomadicMILK project that I am currently doing in Nigeria. I tell a story about a locally produced product versus global trade, and of course that is politically loaded. But whether global trade systems are good or bad—apart from the issue of whether I can judge those criteria—is something I don’t think you can predict. I find it fundamentally impossible to come to a conclusion on this. I am well aware of the journalistic approach, and I see the importance of explicit opinions, but for me this obscures the advantage—or the open space—that art entails. I believe that an open stance offers much more space for other meanings. For example, my research into

the way we experience space opens up other layers. I don't believe in making moral statements in my work: this suffocates the work and makes it impossible for people to draw their own conclusions.

A lot of artists who work with GPS and location-based technologies are less interested in the technology than in the stories that come about when people have followed a certain route. In your work the interaction between the map visualizations and the participants has often been a point of departure for telling stories—the result is, above all, a living portrait of a landscape, of stories, and people.

Yes, I have used locative media as an interactive and storytelling tool, although that was not the initial goal. With Amsterdam RealTime, for example, the main goal was to give people a sense of their own perceptions. We did not want visitors to adopt the “surveillance” perspective or the voyeuristic gaze, but we wanted them to try to identify as much as possible with the participants. We used a theatrical method: namely we conveyed participation in the project as a very special, even enviable opportunity. People really got involved and immediately became part of the project—the machine was set in motion. The point of departure was not to emphasize the interaction between people and the traces they leave behind, although we did print out the individual routes and hand them out to each participant as a souvenir. Looking back now, I think it was a rather naive decision: we had absolutely no idea how much impact the printouts would have on the participants. People pored over their printed-out routes in utter fascination and couldn't wait to share their stories.

The same thing happened in Cameroon too: people immediately recognized themselves in the sand routes as the robot carried them out. I think it is important to realize though that not everyone uses maps or reads or draws a map in a similar way. I let people look at the patterns they made based purely on memory, based on their own route; it is not about how people read or use maps. For me it's all about revisiting spatial experience—as a way of bringing about a new perception.

I am interested to hear how people talk about their own route, the terminology they use. The people we spoke to in Cameroon, for example, did not draw maps but explained the route using certain words. But in the end I think the essential thing is to create a certain tension in the visitor who is faced with the new and the unknown. This moment of tension takes place when I stand on a certain spot with the people who have just followed a route and who see the robot drawing out their route again. The question then is whether this means anything to these people. That moment of excitement and amazement—when people's way of identifying with their own route changes—is what it's all about.

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December 15, 2008

R. Bridger Rollins, CEO  
Sweetwater Creek Ventures, Inc.  
1577 Westheimer  
Houston, TX 77002

Dear Bridge:

Following our conversation of November 23, I met with our team in Dallas. Karen Schools, Director of our Challenging Terrains Division and Skip Alpenhous, Ph.D., J. E. Hoover Chair in Communication Strategies, Murdoch University, were present as well.

The meeting began with an updated assessment of Sweetwater's Valuable Assets-DRC subsidiary. Principal issues of concern were identified and preliminary strategy proposals elaborated. The following is intended to provide you with an overview of the situation: what we have learned, what information we are seeking and how, and what we recommend as the best course of action for Sweetwater at this time.

Sweetwater's most urgent concern, at this point, everyone agrees, is the "Koltan Kills Kids" - aka "KKK" - campaign launched by the Braka Dju Collective. The campaign has had a significant negative impact on Sweetwater's public profile. Damage control is not considered sufficient. An aggressively proactive approach is urgent to counter an accelerating fall in Sweetwater share prices.

As you know, Braka Dju's campaign centers on a series of images whose purpose is to alert consumers to one fact: that the rush for coltan (columbite-tantalite), essential to the production of virtually all computers and cellular telephones and a significant number of devices vital to the arms industry, is fueling the war in Eastern Congo and its spread to adjacent countries (Rwanda, Uganda and so on). Large numbers of people are dying and entire communities (in the hundreds of thousands) are being uprooted. Although Africa tends to get little attention on the evening news, this story seems to be gathering steam and the UN is talking genocide. This obviously presents a significant PR challenge for Sweetwater, as it is one of the most visible coltan mining ventures in the region.

Braka Dju's "KKK" images have had a devastating effect. Two in particular are a problem: they have caught on like wildfire and, at this point, seem to be known pretty much everywhere. I attach reproductions for your files. Braka Dju has plastered poster and sticker-sized versions of the two images in cities across the globe. Graffiti versions have been developed as well. The trend has attracted other organizations, notably in Canada and Australia (which, as you know, are strategic coltan extraction sites as well) and now the images are appearing on T-shirts, bandanas and assorted "protest" gear from New York to Beijing. Most major cities are infected and clearly the phenomenon is spreading: this past hour, the tracking team we've put in place has reported sightings in a women's WC outside Yerevan, Armenia, in a bar near Las Tunas, Cuba, and on a halibut trawler in the bay of Kattegat, off the Danish Mainland.

The more graphic of the two Braka Dju images shows a gorilla at a computer with a briefcase full of broken cell phones, a dollar sign and a coltan symbol (specifically, the electron shell diagram for Tantalum, the 73rd element in the periodic table of elements), which doubles, here, as a target. The image has taken on a life of its own. Hong Kong and San Francisco tattoo parlors are offering several versions - the gorilla alone, the gorilla with the coltan symbol or the whole spread.

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Along the way, the monkey has apparently acquired a name: Tsuba Ka. We have run the name by Gordon Fallous, head of African Linguistics at Bradenton State, and the news is not good.<sup>8</sup> According to his report, filed yesterday:

The name functions on several metaphorical levels. Two, in particular, are worth noting. The first is clearly a reference to Congo: in Lingala, one of DRC's lingua francas, *tsuba ka* means "to penetrate with an object." Here, then, you have an allusion to mining, as well as, in all likelihood, a scatological statement – to put it bluntly, something along the lines of "up your ass."

A second meaning finds its roots in popular culture. I owe this insight to my colleague Patricia Schnausertrensch, a primatologist who is the mother of two young boys. "Tsuba Ka," she tells me, is almost certainly a willful deformation of "Chewbacca," the name given to the widely beloved simian creature played by actor Peter Mayhew in several of the Star Wars movies (episodes 3, 4, 5 and 6, in which Chewbacca appears, notably, as the first mate of protagonist Han Solo's spaceship, the Millennium Falcon). The name choice, Patricia suggests, is explicitly meant to tug at the heartstrings of ecologists, who are concerned with the disappearance of the Virunga volcano region's (DRC, Rwanda, Uganda) eponymous mountain gorilla (*gorilla berengei berengei*), whose dwindling population (fewer than 320 at last count) may not survive another year of warfare.

As, of course, you are aware, a great deal of attention has been paid to the plight of the mountain gorilla, as witness an article published yesterday by the *Los Angeles Times*, in which the DRC conflict is described as a "gorilla war." The fact that mountain gorillas are not only endangered, but also vegetarian, our Media Watch Division tells us, has won them a great deal of sympathy. (Parallel research backs this up: on the NRA's "tree-hugger index" – an informal but highly accurate source – the Virunga gorilla rates several points higher than the endangered Namibian Cheetah, which is considered equally in need of support, but less attractive because a carnivore.)

By linking its anti-coltan campaign to the gorilla situation, Braka Dju has, by all accounts, significantly increased its visibility. As the Chewbacca tie-in shows, the Collective has also tapped in quite effectively to pop culture. With Star Wars as an access point, it has been able to reach two generations – parents who were in their teens when the first Star Wars movie came out, as well as their children, who are familiar with more recent episodes of the saga. This broad demographic significantly complicates the task of countering the Braka Dju action, as does an additional factor.

The Tsuba Ka/Chewbacca character has made inroads into a tranche of the population that peace activists and assorted human and animal rights groups have historically had a great deal of difficulty engaging: 20-something disaffected Caucasian males. According to Joy Silversmith of CAC (the Conservative Action Campaign, Denver, CO), who has been working with us on this matter, timing – when the monkey in the Braka Dju campaign first got its name – is key. Apparently, this occurred within hours of Sweetwater's first Braka Dju-related press conference. You remember the debacle, of course (this was the occasion on which you were pelted with rotten bananas – in hindsight, a harbinger of things to come – after pointing out the importance of coltan in the development of early diagnosis tools for testicular cancer). By the next day, an animated version of the Braka Dju gorilla had showed up on the web and within the week the sites where he appeared (primarily as a break-in hacked into legitimate business platforms, including, of course, the Sweetwater home site) were screening one-minute episodes of a series entitled "Fight the Power: Vote Tsuba Ka."

The first episode was called "Gotcha by da Balls" and was a takeoff on two widely recognized storylines from the now famous and highly offensive South Park animated series launched by Comedy Central: (1) the "Chin Ballitis" stream, in which the character Butters agrees to have prosthetic testicles attached to his chin by two Star Wars special effects mavens so that he and his friends can appear on the equally offensive Maury Povich tabloid TV talk show; (2) the "Chewbacca Defense" stream, a satire of the OJ Simpson murder trial, in which an

animated version of attorney-to-the-stars Johnny Cochran reprises the type of red-herring defense ("If the glove doesn't fit, you must acquit") that, most people believe, resulted in Simpson's acquittal.

As far as Sweetwater is concerned, the allusions to South Park are a direct hit. The Chin Ballitis stream is clearly a reference to your press conference statement and, with all due respect, a reference also to the loose skin of your neck (our LA-based Physiognomy Division, which provides relooking advice for businesspeople, recommends that you have this "turkey wattle" [the term used by plastic surgeons] removed before your next encounter with the press; several of our top people have gone this way and report significant improvement in a several areas of their daily life). The Chewbacca Defense stream is equally a reference to the press conference, the inference being that Sweetwater is deploying wholly invented arguments to deflect attention from a crime it has committed: aiding and abetting in the death and displacement of hundreds of thousands of innocent civilians.

My assistant Violetta has compiled the following data, which will clarify the situation for you:

According to the *Urban Dictionary*, the term "Chewbacca Defense" is "a totally bullshit argument." Specifically, it is "a term for any legal ... or propaganda strategy that seeks to overwhelm its audience with nonsensical arguments, as a way of confusing the audience and drowning out legitimate opposing arguments."

Still according to the Dictionary, "the term Chewbacca Defense was first used in the South Park episode "Chef Aid", which premiered on October 7, 1998 as the fourteenth episode of the second season. In the episode, Chef [a recurrent character on the show] discovers that Alanis Morissette's hit song "Stinky Britches" is the same as a song he wrote years ago, before abandoning his musical aspirations. Chef contacts [Morissette's] record company [Capitalist Records], seeking to have his name credited as the composer of "Stinky Britches." Chef's claim is substantiated by a twenty-year-old recording of Chef performing the song. The record company refuses, and furthermore hires Johnnie Cochran, who files a lawsuit against Chef for harassment.

In court, Cochran resorts to his "famous" Chewbacca Defense, which he "used during the Simpson trial," according to another South Park character. Cochran begins by noting that although Chewbacca is from [the homeworld] Kashyyyk, he lives on [planet] Endor, and then proceeds to the heart of the defense: "Why would a Wookiee, an eight-foot tall Wookiee, want to live on Endor, with a bunch of two-foot tall Ewoks? [Wookiee and Ewok are species names.] That does NOT MAKE SENSE! But more important, you have to ask yourself: What does this have to do with this case? Nothing. Ladies and gentlemen, it has nothing to do with this case! It does NOT MAKE SENSE! Look at me. I'm a lawyer defending a major record company, and I'm talking about Chewbacca! Does that make sense? ... Ladies and gentlemen of the [jury], it does NOT MAKE SENSE! If Chewbacca lives on Endor, you must acquit!"

Cochran's use of this defense is so successful that the jury finds Chef guilty of "harassing a major record label" and sets his punishment as either a two million dollar fine to be paid within twenty-four hours or, failing that, four years in prison.

Ultimately a "Chef Aid" benefit concert is organized to raise money for Chef to hire Johnnie

Cochran for his own lawsuit against the record company. The concert (a parody of Live Aid) features his old showbiz friends — Elton John, Meat Loaf, Ozzy Osbourne (who kills [the character] Kenny by biting his head off), and others ... At the concert Johnnie Cochran experiences a change of heart ... and offers to represent Chef for free. He again successfully uses the Chewbacca defense, this time to defeat the record company and make them acknowledge Chef's authorship of their song. In the second use of the Chewbacca Defense, he ends by suddenly producing a stuffed monkey and shouting "Here, look at the monkey. Look at the silly monkey!", causing a juror's head to explode."

According to both our Internet and legal analysts, Braka Dju has hit a home run here. At this point, "Chewbacca Defense" has become a by-word on websites dealing with legal and, increasingly, political issues (see the Slashdot site — <http://slashdot.org> — and its various subculture offshoots; in fact, it seems there may be an under-under ground link here: below the Tsuba Ka gorilla in the Braka Dju image is a series of slashes and dots, morse code for "KKK" [Koltan Kills Kids]).

Thus, Koltan Kills Kids has managed to infiltrate multiple demographics simultaneously: the usual suspects (peacenicks, tree-huggers, vegetarians and the like); baby boomers *and* their children (a stunningly successful cross-generational appeal that seems to have given rise to a line of all-organic Tsuba Ka stuffed monkey toys just in time for the holidays); an otherwise un-reachable white male audience (couch potatoes); net freaks, computer nerds, assorted bloggers and pundits; and, worst of all, lawyers.

A final demographic of which you must be made aware has our analysts extremely concerned. Their concern stems from the fact that the process involved seems to be completely unrelated to Braka Dju. Others, as yet unidentified (one group or several, linked or not — this is still thoroughly unclear) have attached themselves to the campaign against Sweetwater, taking it in directions that we do not think Braka Dju had itself envisaged. In other words, this thing has taken on a life of its own. It is spawning networks whose nodes may or may not have any formal link to one another. As we know from the fight on terrorism, this is the toughest nut of them all to crack.

These networks do seem to have one, common starting point: a campaign poster created by Braka Dju (we are still hunting down the artist(s), but at this point have little hope of succeeding). This is the second of the two images I attach here. It shows, from left to right:

(1) A planet over which a snake is slithering<sup>□</sup> — most likely earth, on which Sweetwater may be the snake — shortly to be hit (and likely destroyed) by a coltan meteorite that has apparently given birth to headless beings (art historian Rosalind Krugge interprets these as a cross between Edvard Munch's "The Scream," the bright

\* Karen and Skip had originally recommended a Live Aid-like plan to counter some of the bad publicity Sweetwater is facing (something along the lines of Gorilla Aid), but it seems Braka Dju had seen this coming and, with the Tsuba Ka campaign, has forced us to nix the plan. As polls in seven industrialized countries indicate that gorillas rank higher than human beings in the public's awareness of the DRC afford to ignore the "children" aspect of the Braka Dju campaign, which, after all, is named "Koltan Kills Kids." Possibly a school or two could be built, as well as a few dispensaries, as an initial form of counter-action.

□ Research on snake anatomy (Violetta found a useful South African web site — [www.icon.co.za/~mydmerwe](http://www.icon.co.za/~mydmerwe) — on the subject) pointed us in the direction of answers about the snake in the poster. Apparently, the snake is Congolese. It was photographed in 1959, in Congo, by a Belgian helicopter pilot, one Col. Remy Van Lierde. According to a second web site, on which the original picture can be viewed (<http://www.geocities.com/CapeCanaveral/Launchpad/6873/crypte.html>), "the snake [Van Lierde] saw measured approximately 40 to 50 feet in length [and was] dark brown/green with a white belly. It had triangle shaped jaws and a head about 3 ft x 2 ft. Experts have analyzed [photos Van Lierde took of the reptile] and have verified them as authentic. They also have verified the size of the creature by matching ground features to the snake. As the helicopter flew in lower the snake raised up 10 feet and looked as if it would strike at the helicopter if [it] flew any closer."



yellow Homer Simpson version of same, and some kind of bacterium, suggesting a terrible disease or mutation);

(2) A small African child on whose forehead a bar code has been pasted (according to Krugge, "an image of commodification");

(3) CIA surveillance footage of an anti-coltan march in Paris (the sign brandished by the protestor at center, which equates coltan with blood, refers to "multinational" companies in general but, sources inside the Paris movement tell us this is a coded allusion to Sweetwater);

(4) The money shot: a Photoshop image showing a gagged and one-armed dreadlocked African, visibly in pain, holding what appears to be a corpse – his own body – wrapped in a Congolese flag, and wearing an Obama victory shirt (clearly, Krugge tells us, a claim of worldwide support for the Braka Dju campaign – the only good news, here, is that the Obama people swear they have nothing to do with this and that they have had no contact with Braka Dju).

Completely outside Braka Dju's ambit, the poster has engendered a worldwide phenomenon that has caused havoc in the computer and telecommunications industries. The phenomenon in question is a computer game that can only be described as perverse. It belongs to a category that virtual reality specialists refer to as "ubiquitous games" (or, more generally, ubicomp [for "ubiquitous computing"]) – defined by our in-house IT crew as "games that are characterized by a porous interface between metaspaces and cyberspace." In the more interesting ubicomp games, much of the action takes place in the real world (as opposed to on a computer screen): while leading their everyday lives, players participate in a parallel gaming universe in which places, objects and people they encounter have a hidden, or double meaning.

Here again, Violetta has done useful research for us. Jane McGonigal (Resident Game Designer at the Institute for the Future), she tells us, has written a good article on the subject, in which the following is explained:

Ubiquitous gaming asks players to take up two core mechanics: first, searching for and experimenting with the hidden affordances of everyday objects and places; and second, exhaustively seeking to activate everything in their immediate environment. This activation is, in fact, mutual. Game structures activate the world by transforming everyday objects and places into interactive platforms and also activate players by making them more responsive to potential calls for interaction. This is because the act of exposing previously unperceived affordances creates a more meaningful relationship between the actor and the object or the space in the world.<sup>10</sup>

The ubicomp game engendered by the Braka Dju poster is called "Third World War." It features a hydra-like female protagonist called Daku Rani who can take on as many forms as players involved. Daku Rani can be good or evil, depending on the player's inclinations. She moves through space collecting firepower, battle plans and tactical advantages, and rallying people to her cause, in a conflict that, as the game's name suggests, involves the whole world. While the entire planet is concerned, in the game's storyboard set-up, the starting place of the war is Eastern Congo. Specifically, it is Sweetwater-DRC's Goma offices. As in early games such as "Barcode Battler" (a low tech game developed as early as 1991) and "Botfighters" (2001), "everyday objects can be (mis)used (or put to alternate ends) to gather tools for effective (play) destruction."<sup>11</sup>

<sup>10</sup> Jane McGonigal, *Space Time Play – Computer Games, Architecture and Urbanism: The Next Level*, F. von Borries, S.P. Walz and M. Böttger eds., Basel, Boston, Berlin: Birkhäuser, 2007 (p. 236).

<sup>11</sup> Madeleine Notbright, *When Death Is Worth It: A Gamer's Manual*, Washington, DC: Arcadia, 2007 (p. 123).

In "Third World War," the ultimate goal (depending, again, on the player's inclination) is either to blow up Planet Earth or to save it from destruction. Here, the creators of the game have clearly taken their cue from the left-most image in the Braka Dju poster. A secondary goal (yet again a matter of player inclination) involves either murdering or saving a protagonist known as Le Lion, who possesses a cache of esoteric knowledge that must be accessed to move upward into the more complex echelons of the game (which few people, if any, have been known to reach so far). Among the items in the cache is Sweetwater-DRC's business plan for 2009-2013. Rumor has it that we are talking, here, about the actual business plan and that, when changes were made to the plan following the collapse of Lehman Brothers earlier this year, the data in the cache was changed as well. In other words, Sweetwater security may have been breached or you may have a mole at headquarters. For "Third World War" gamers, the gagged, two-headed figure on the right of the Braka Dju poster would appear to represent Le Lion -- to be killed on top (facing North) or liberated on the bottom (facing South).

As in the early games mentioned above, and as in more sophisticated present-day games, tools to fight in "Third World War" can be acquired in metaspace -- the real world. In "Barcode Battler," the trick was to use barcodes obtained from the packaging of ordinary goods to accrue points. Afficionados of the game knew which barcodes were more effective than others, as this had nothing to do with the actual cost of barcoded goods (Campbell's tomato soup barcodes were more point-rich than Lindt chocolate barcodes, for example), the game ended up attracting a crowd known for its vocal attacks on capitalist value systems. The "Third World War" people have revived the old "Barcode Battler" move: barcodes from items you can buy in any corner store contain tools for engaging in the war; this return to an old-school gaming device (Battler was the inspiration for the Pokemon craze) was probably inspired by the top middle image in the Braka Dju poster.

Much more effective, however, as sources for weapons, plans and tactical advantages to do battle in "Third World War" are everyday objects that are said to "contain blood." At the top of the list are items whose manufacture calls for coltan. To access the "blood points" contained in such items, the coltan within them must be removed and destroyed. This, of course, is highly problematic, as the two most common, coltan-dependant everyday objects with which people across the world come in contact are cell phones and computers. The fact that most cars today contain computers of some kind or other further complicates things.

Ubiquitous games are meant to be, can be and are played anywhere and everywhere in the world. Unlike related but different types of games, according to McGonigal, they "engage players by the hundreds or thousands at minimum, more typically by the tens of thousands and, in the most successful games [which appears to be the case with "Third World War"]; by the hundreds of thousands at a time."<sup>1000</sup> Given how easy it is to access cell phones, computers and cars almost everywhere, including the most remote parts of countries like DRC, this is alarming to say the very least. In early days, the damage was fairly contained. At this point, however, we are fast approaching a potentially catastrophic tipping point. So many people in so many places are playing "Third World War" that, in the past month and a half, we have witnessed destruction on a massive scale.

At first, manufacturers of objects containing coltan were delighted: the assumption was that the need to replace stolen and destroyed phones, vehicles and lap and desktops would result in orders that would counterbalance sales losses due to the global economic slump. It was also assumed in some quarters that the price of coltan would shoot up as a result. Initially, these predictions proved accurate. But as the damage has become more and more widespread (by way of example: in the French village of Ludon-Médoc [circa 3500 inhabitants], 2023 cell phones, 798 computers and 1203 cars were destroyed by gamers in the Fall trimester of 2006 alone), insurance companies have ceased reimbursing consumers whose coltan-containing valuables have been vandalized. As a result, not only have sales not picked up; consumers have also started to look into alternatives, with an increasing number of people biking to work and visiting neighbors and family rather than calling, skyping or e-mailing them. Paper and pen sales are up. Most alarming, cell, computer and car manufacturers are starting to invest in alternative materials and technologies research, with an eye toward moving away from coltan use

<sup>1000</sup> *Space Time Play*, pp. 236-237.

altogether.

Analysts disagree as to the long term effects of what is shaping up to be a major crisis. Paul Tuparl d'Uncon (The Mining Institute, La Joya, CA) argues that the movement will peter out. Hugh Montague out at Langley disagrees; as he sees it, there is much worse to come. He predicts "blood tool" attacks on increasingly larger targets – a move, notably, from SUVs to small aircraft and eventually, as "Third World War" gains adepts among commercial ground and flight crews and military personnel, onward to civilian and military carriers. According to a confidential memo leaked to our Palm Springs office by an un-named Pentagon official, increased security is being recommended for Cape Canaveral. The French seem to be gearing up for a similar arrangement at their Ariane launch pad in Guyana.

The darkest scenario comes to us from Isaak Judah (U.K. Le Guin Professor of Futurology at the Institute of Higher Consciousness, Kiev, Russia). Judah has been tracking "Third World War" gamer strategies and compiling statistics on the game's spread for two years now. He heads up a team of fifteen, including mathematicians, sociologists, epidemiologists, a viral marketing specialist and, of course, an IT crew. His take is that the movement is growing so fast and that so many people are becoming caught up in it that "it has effectively migrated from the virtual world wholly into the everyday space of human interaction." As he sees it, the likeliest outcome is a situation in which so many coltan-based manufactured goods are destroyed that: (A) as noted by others (see above) major manufacturers in a range of fields will focus on developing alternatives to coltan and (B) as a result, the coltan market will collapse entirely. This, however, he states, will only be the tip of the iceberg. Having come to this point, the developers and gamers of "Third World War" – and, likely, collectives like Braka Dju – emboldened by the success of their actions, will (C) turn their attention to other "blood point" materials (other rare and highly strategic metals as well as better-known targets such as oil, diamonds, uranium and the like), (D) potentially causing the collapse of entire commodity markets and (E) ultimately, destabilizing capitalism itself. He believes that it is unlikely the movement can be stopped.

On the basis of the foregoing, and following extensive consultation with a crisis cell put in place at our request by the World Bank, we recommend that Sweetwater promptly sell all of its DRC coltan holdings and invest the proceeds in clean air technologies. Appalling as it is, barring large-scale military action (for which our friends at Blackriver, Inc. are prepared to offer you a turnkey package, but which we are not convinced has a reasonable chance of success) it does appear that investment in these technologies is the only reasonable option at this time.

I will get back to you early next week with detailed proposals for the smooth execution of this proposed exit strategy. In the meantime, we strongly recommend that you avoid any interaction with the press and that you enforce a Sweetwater-wide gag order in all matters relating to Braka Dju's "Koltan Kills Kids" campaign.

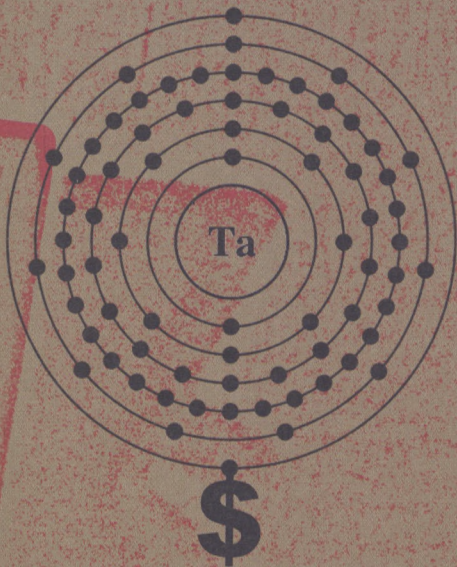
Please don't hesitate to call me if you have any questions.

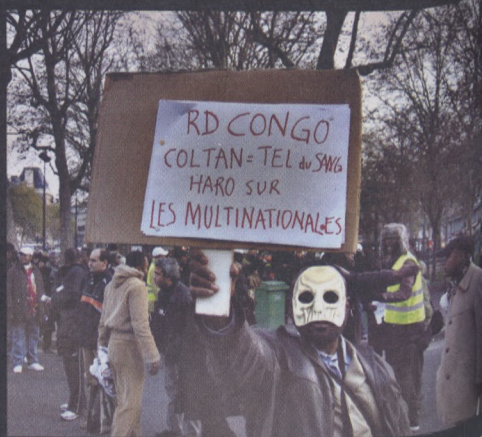
Sincerely,

Sparck

Stephen Kalichnik, CEO









# The Front Lines of Telephony: The Tantalum Memorial and the Coltan Wars

Jonathan Fletcher

While mobile phones have become indispensable “survival tools” for many in the West, few people are aware that devastating wars have been fought over a valuable mineral used in the production of these and other appliances: coltan. Approximately 80 percent of the coltan reserves on the planet are located in the Democratic Republic of Congo. With the surge in demand for such electronic goods, the price in coltan has skyrocketed in recent years from \$65 to \$600 a kilogram, according to a recent BBC article. The result has been an ongoing state of war, instability, and genocidal killings within the DNC.



Dedicated to the thousands of Congolese who have died or fled over the course of these so-called Coltan Wars, the *Tantalum Memorial* engages the Congolese community living in the United Kingdom through a telephony network mirroring the traditional word-of-mouth communication networks in Congo, Telephone Trottoire. The project has been conceived and engineered by the artist group Harwood, Wright and Yokokoji, previously members of the collective Mongrel. The title refers to the fact that coltan is a tantalum ore. Beyond raising awareness for an issue that has, troublingly, been practically neglected by the media, the *Tantalum Memorial* functions as a temporary platform for an exchange of stories and experience within the Congolese diaspora: a forum for Congolese to voice their concerns and strengthen internal links within the UK community.

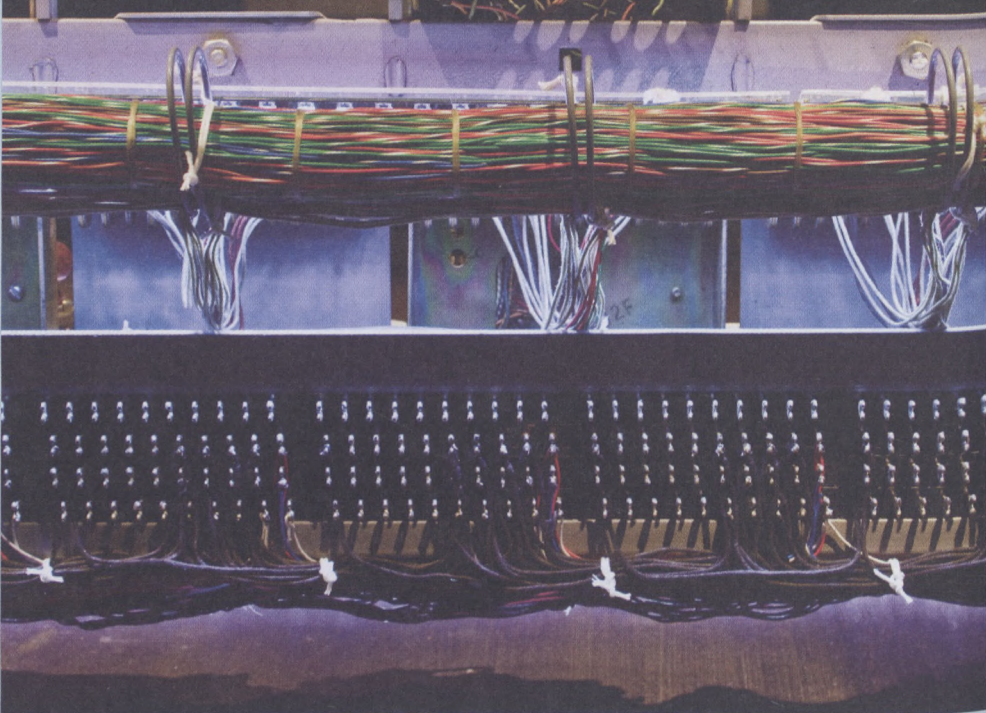
### Telephone Trottoire

*As a new community in the UK, we—the Congolese—are seldom asked for our thoughts and opinions... Decisions are all too often taken by social policy planners, working at a distance, who rarely consult the community on the issues that affect us. However, through Telephone Trottoire our people have spoken out about how they really feel and what they would really like to see happening.*

The above statement is by Analcet Koffi, Vince Luttmann and Esther Bodi who collectively oversee two Congolese-based radio programs on Resonance FM in London. *Nostalgie Ya Mboka* (roughly translated as “Nostalgia for Home”) is a traditional Congolese music show and *Londres Na Biso* (Our London) is a current affairs magazine program. In the UK, and especially in London, there are now huge amounts of Congolese immigrants and refugees, isolated from home and from each other, many of whom have only a vague grasp of spoken English.

*They continue: Shortly after independence in 1960, the DRC (Democratic Republic of Congo) entered a period of civil war, followed by a European / US backed dictatorship lasting from 1965 to 1997. During the late 1970s our country's economy also went into steep decline, and bribery and corruption became a way of life. Much of the country's existing social infrastructure collapsed, and it has been that way ever since.*

Telephone Trottoire was built to act as a temporary communal bridge between these thousands of refugees. With the Mongrel collective Harwood, Wright and Yokokoji had already developed a technique for passing phone calls around a hospital telephone exchange system for a project called *A Roundhead*, in which a voice claiming to be Oliver Cromwell was lost inside the system and randomly called numbers to tell stories, jokes and sing songs. This system turned out to be remarkably similar to the Congolese practice of pavement radio, or radio trottoir (whereby news and (especially) gossip is transferred vocally by person to person on street corners in an attempt to avoid state censure). The artists redeveloped the software for Telephone Trottoire to pull phone numbers from a database that had been compiled by subscribers to the radio programs broadcast weekly on Resonance FM. Once subscribed, the numbers in the database were dialed one after another. The recipients of the calls were then greeted with pre-recorded content, which ranged



**Harwood, Wright, Yokokoji**  
Tantalum Memorial - Reconstruction

from anecdotes, music and jokes to more serious topics like benefit issues in the UK. The content was in Lingala, the language of the Congolese. If the participant accepted the call, then he or she had the option of leaving a response or forwarding the call to somebody else, who would then be added to the system. The piece thus reveals its potentially viral nature, creating its own network as it goes along. The Congolese reacted extremely positively to this media format due to it being broadcast in their own language. One of the prime motivations and concerns for the Nostalgic team was that members of the Congolese community need to cement their own links and connections between each other before they can deal with their place in the UK and before they can attempt<sup>10</sup> to refract this power back to their homeland. The mobile phone grants a mechanism for free speech amongst a people who have suffered so brutally for such a right.

*As a community with little interaction with mainstream UK society, we Congolese have become an “easy target” whenever segments of the media have a need to scapegoat refugees and asylum seekers. For example, a media story concerning supposed “religious” ritual child abuse within the UK’s African communities singled out the Congolese, with headlines including words such as “primitives” and “savages.” Given the history of the DRC, where it was not possible for individuals to raise their voice without fear, it is thus hardly surprising that our community is very wary of coming forward to take up our right of access to free speech as well as many other rights and services taken for granted by other new, yet already mobilized UK-based communities.*

This is a vital aspect of the software and mechanics of Trottoire. It allows anonymity and the freedom to participate without fear of reprisal. The radio programs became a platform to play comments and discuss issues—providing that the participants gave their permission. The “virtual” geography enabled by the mobile phone and the radio broadcast allowed a form of connectivity to take place. The success of the project led to a second phase this year, when it was relaunched and ran for nearly four months in June. Due to the now-familiar format, the Nostalgie team expanded the scope of the polemics.

Koffi explained, *“The first one was about trying to make the community think for themselves and to encourage communication. The second looks at wider issues of globalization. We look at how the West is using our resources and us, and we are not benefiting from it. We have a story about Vodaphone for example. Vodaphone provided us with a telephone system by using our coltan, and we have to rely on them and buy credit to allow us to communicate, and they make a fortune from this. They make millions and millions but put nothing back, they don’t DO anything.*

### **Tantalum Memorial**

There is a thread that runs through all of the sculptures and activities related to the *Tantalum Memorial*: the Strowger switch. Almon Strowger filed the patent for the first automatic telephone exchange switch in Kansas in 1891 after conceiving it three years earlier. An undertaker by trade, Strowger’s business was losing clients to a competitor whose telephone-operator wife was intercepting and redirecting everyone who called him. His conception of the switch was as a means for the subscribers to choose whom they called rather than the operator.

The various versions of *Tantalum Memorial* have been constructed from different banks of Strowger switches. The artists and a variety of technicians in different countries all worked together to build and resurrect the switches. *Tantalum Memorial (Reconstruction)*, the version at transmediale.09 was built out of six American switches and was originally exhibited at the Zero 1 festival in San Jose. *Tantalum Memorial (Residue)* was a large bank of switches rescued from an ex-fascist aluminum factory in Bolzano, Italy for the Manifesta 7 European Biennial of Contemporary Art. All of the switches were connected via modem to a computer that would access the database of phone numbers for the people who had subscribed to the Trottoire project. The screen listed the numbers being dialed in a disguised form, and the switches then sprung into motion, tapping out the numbers. A set of headphones nearby replayed the anecdotes, stories and polemics that were transmitted during the project.

Entitled *Phone Wars*, the project at the London Science Museum was slightly different. Instead of re-exhibiting *Reconstruction*, the artists decided to intervene within the institution itself and utilized a previously dormant wall of Strowger switches in its collection. A series of workshops was set up with a school in nearby Greenwich, where the pupils worked in tandem with Congolese residents and refugees. Through the ensuing discussions and sessions the pupils came up with a new series of stories and provocations. Due to the new content being recorded in English and the stories coming from a non-Congolese background, the viral scope of the project expanded.

### **The Coltan Wars**

There is an ironic strategy that plays out across the various projects. The huge potential for the anonymous internal communications amongst members of the Congolese diaspora in the UK and the ability to build a community through mobile phone technology rest on a tragic paradox. One of the predominant reasons the 35,000 plus refugees find themselves in exile is due to the metal tantalum, a vital part of communications technology present in laptops and mobile phones. The Coltan Wars have partly precipitated this mass exodus, but then mobile phone technology has enabled the community to find a lifeline of connection. The price of tantalum soared above that of gold for a brief period in 2000, prompting an environmentally catastrophic rush of mining in the region. Alongside this came a myriad of other ills, including widespread crime, corruption and prostitution. It should be stressed that this is not the only reason behind the mass exodus, nor does it account for inter-communal issues. However, for a country already in state of huge internal crisis, this war has had an immeasurably devastating impact. The drive towards globalization and accompanying increases in communication can be seen as the cause of something approaching genocide.

It is obviously unrealistic and impossible to expect the dismemberment of such technologies. However, the staging of events and projects that can move between the social and the artistic (for want of better words) that engage people through participation does allow for a rethinking of such devices. The format of the workshop that moves between different social groups and the nature of such expansive collaboration opens up the artwork to multifaceted contributions. The placement of the sculptures within exhibition spaces creates a moment where such a uniformly ubiquitous device as the mobile phone is temporarily reflected in an unknown and more subversive form. It is in this new light that alternative avenues can be sought to deal with such contemporary circumstances.

# Growing up

**Rob van Kranenburg**

*In East Java young people fall in love with each other and are then told that their love is impossible, they know not why.*

*if you desire healing  
let yourself fall ill  
let yourself fall ill  
Rumi*

TCP/IP is the set of network communication protocols—the language—of the Internet (Transmission Control Protocol/Internet Protocol) that ran officially on the ARPA network (the precursor to the Internet) in 1983. Because of the military and academic background of the Internet, the World Wide Web was made possible in 1993 with the browser Mosaic. Had it been a commercial operation, we would be living in a world where we paid for a subscription to the Sony web in order to deliver an email to a friend in Japan from Philips Netherlands web.

It has allowed citizens to become professional managers of their lives through the Internet, 3G, and GPS and the ever-growing possibilities of social networking applications and sites. The solidarities that still exist within the legislative frameworks and mental maps of citizens are rapidly being broken down by the inability of national states to deal with the current financial crisis, the rising oil and gas prices, climate change, and the changing power shift towards the East.

These national states have outsourced and privatized everything from their currency to their ability to make law and are de facto empty shells that function only as tax receiving institutes. Taking the Netherlands as an example, we see that as one the highest developed and technology saturated nations it has the highest rate of emigration in the EU, even higher than Poland.

The Dutch white middle class is leaving the country because it no longer sees the Netherlands as its mental mirror of possibilities and because of the high pressure of regulations, laws, and end-user disciplining (smoking in designated areas, compulsory behavior regulation in cars, homes, and workspaces).

It is not hard to predict that this situation cannot last. To reiterate: you cannot equip citizens with tools and expect these not actually be used. But if we look around, the situation actually seems quite stable, even quite calm. This is because the logic of ambient intelligence not only lays out its own disappearance as success, but also in doing so it builds its own foundation as being “natural,” and inevitable. If as a citizen you can no longer fix your own car—which is a quite recent phenomenon—because it is software driven, you have lost more than your ability to fix your own car; you have lost the very belief in a situation in which there are no professional garages, no just in time logistics—no independent mechanics, no small initiatives.

If the environment becomes the interface, where are the buttons, where are the knobs? Ambient intelligence requires—as it interfaces with citizens on very superficial levels of agency, as it wants the intelligence “running in the background”—a very stable society, quite calm and sterile. Any change in the background, in the axioms that make up the environment, has tremendous consequences on the level of agency of citizens.

They become helpless very soon, as they have no clue how to operate what is “running in the background,” let alone fix things if they go wrong.

## Breakdown

So lets suppose it will break soon.

If it does, when it does—it will break big time. In our western cities there is enough food for two days. No brico-brunches. Or, only brico-brunches? Hmmm. Just in time has become an ideology. Ideologies come and go. Sometimes they fade into each other.

So, when do I act? When do I decide I have to act before the plug will be pulled and the other-people's-mayhem will be ours? When do we decide we can gather enough brain, making, and hacking power to call out for the revenge of the poets, of the artists, of the love for love itself. To make brico-mayhem? Or, when do I decide? Sometimes I wonder (smiling now) if I have got an I left. I have become a platform. Vast, expanding, and drawing everybody in. A black hole. Oh, but I do hope Rumi style. I know I thing or two I learned from my friend Heine, my brother Nietzsche, and someday, someday I will hug that horse too, my friend!

For now, my friend, I suggest you take a month-long vacation in the stratosphere.

And if that is not possible—you may not know how to get there—you had best download or youtube the song "Growin' Up" by Bruce Springsteen:

### Growin' Up

*I stood stone-like at midnight suspended in my masquerade  
I combed my hair till it was just right and commanded the night brigade  
I was open to pain and crossed by the rain and I walked on a crooked crutch  
I strolled all alone through a fallout zone and came out with my soul untouched  
I hid in the clouded wrath of the crowd but when they said "Sit down" I stood up.  
Ooh-ooh growin' up*

*The flag of piracy flew from my mast, my sails were set wing to wing  
I had a jukebox graduate for first mate, she couldn't sail but she sure could sing,  
I pushed B-52 and bombed 'em with the blues with my gear set stubborn on standing  
I broke all the rules, strafed my old high school, never once gave thought to landing,  
I hid in the clouded wrath of the crowd but when they said "Come down" I threw up  
Ooh-ooh growin' up*

*I took month-long vacations in the stratosphere and you know it's really hard to hold  
your breath.  
I swear I lost everything I ever loved or feared, I was the cosmic kid in full costume dress  
Well, my feet they finally took root in the earth but I got me a nice little place in the stars  
And I swear I found the key to the universe in the engine of an old parked car  
I hid in the mother breast of the crowd but when they said "Pull down" I pulled up  
Ooh-ooh growin' up. Ooh-ooh growin' up*

Maybe it is time to stand up. Or sit. For how long have we not been Cassandra's? Once we said: Let us try to harness our visions in essays, PhDs, and documents. Oh yes, documents please, pretty stamps on top. They will read it and act on it. Write more. Produce more documents. Well, no more. Nobody acts on them. I doubt anyone ever has.

**Transcending Opposition: One city the world is soon**

From: yasir ~!« ”-

To: usman

*"i'm totally with you on the electricity on/off light dark situation here. some places have 5 hours of what they call here 'loadshedding'!!!! shedding the excess power load :)*

*and then how people cope, those who have to deal with it day in night out, there are devices/contraptions that people have come up with..... yes, this needs a space in terms of 'this is what i am doing,' and microscopic research!*

*on a different note this raises equally fascinating questions on many fronts. such as :*

*+ sustainability - is this leading people to not only lead a low energy consumption lifestyle, but in coming up with new strategies that could applied globally?*

*+ in dark neighborhoods with narrow non-brick lanes(!) what is the significance of equally or darker burqas and chadars, which can easily be shed in wide paved well lit boulevards of capitalist dreams..."*

so

Is this leading people to not only lead a low energy consumption lifestyle, but in coming up with new strategies that could applied globally?

Yep.

**Design for Social Friction**

How to develop, investigate, and produce tools for networked brico citizenship for both youth and policy agents? Two crucial terms are *light communities* and *design for social friction*. In *Designing for social friction: Exploring ubiquitous computing as means of cultural interventions in urban space* the authors claim that social friction "is articulated as a critical position, which could be applied as a strategy for design."<sup>1</sup> Over the past decade we have seen many attempts in community projects and policies at large to *design "trust."* The conditions in European cities and



specifically the disciplining measures adopted by governments, the tendency to police situations that call for dialogue, shows that this design for trust has led to the current stalemate of an ever-growing call for more repression and indifference.

Research from the Dutch expert institute on multicultural issues, Forum, shows that allochtone youth (a term that is becoming more and more contested as it means youth from foreign descent, although they can be born in the Netherlands) shows that they construct their image of the country as a whole solely through daily experiences of the neighborhood in which they grow up. Dutch (read: white) youth project different layers of expectations onto different scales: street, city, country, Europe. Their image of the nation is therefore more differentiated.

Over the past decade a growing number of disciplining measures has been introduced in Dutch cities, in this immediate living environment, without dialogue or debate: smart camera's that recognize faces and patterns, mosquito's that literally chase away kids and teenagers from particular places, restraining orders. With ubiquitous computing, RFID (Radio Frequency Identification, cheap tagging of individual items), biometrics (fingerprinting and easy iris scans), and sensor technology in general on the rise—selling the dream of a seamless connectivity by feeding data to databases of policy and police, simply by tracking the everyday actions of people in their everyday environment (gait recognition picking up people on the way they walk, for example)—this seems to be only the beginning.

So let us imagine for a second what it means to grow up in such a world? You cannot stand there, an ugly tone tells you—no more voices, people attached to these voices, possibilities to and for debate, cajoling, name-calling, teasing, in short: learning how to grow up through negotiation.

The image of technology that youngsters grow up with is that it is either a terribly expensive gadget that you cannot afford and probably need to steal to be “in,” or it is something high up in the air that either watches you or hurts like hell. In both cases the possible growing awareness of “agency,” of feeling empowered by your skills to deal with technology is lacking. Ten years ago their fathers could still teach them through taking the car apart. Unfortunately all cars are software based now. Not anymore: those Saturday afternoon spectacles of cars on pavements and guys with crates of beer discussing that valve or this braking system. Kids watching. Tucking data away.

So what would happen if the kids and teenagers could really be part of the design of their own living environment?

### **Wireless Worlds**

Wireless is increasingly pulling in all kinds of applications, platforms, services, and objects (RFID) into networks. Many people communicate through mobiles, Blackberries, digital organizers, and palmtops. Cars have become information spaces with navigational systems, and consoles,

like Nintendo DS and Sony PSP, have wireless capabilities and Linux kernels installed. We are witnessing a move towards pervasive computing as technology vanishes into intelligent clothing and wearables, smart environments (which know where and who we are) and pervasive games. We will see doors opening for some and closing for others. Mimicry and camouflage will become part of application design. iPods will display colors and produce sounds that correspond to your surroundings. Eventually they will come with a “kill switch” that, for example, will automatically lower the volume when you are on a train. Mobiles will react to their environment too, shutting themselves off when they detect that they are in a restaurant.

In the sixties Guy Debord developed a theory and practice on how people perceive their immediate surroundings and space, psychogeography. It describes the effects a geographical environment has on our emotions and behavior. This environment is becoming more and more hybrid: on top of our analogue world (us, cars, streets, trees, buildings...) we find ever more digital connectivity through small computers that do not look like computers anymore. These digital objects: mobile phones, cameras, mosquito's, RFID,<sup>2</sup> and all kinds of sensors are influencing the way we relate to our daily environments just as intensely as the analogue ones. They remain largely outside the agency of ordinary user control. We do not control the infrastructures, the protocols, or the standards. The objects that are in our face—cameras, mosquito's—remain even outside our agency to dialogue with them, to have a debate, to ask why here? Why now? What have I done? In this sense they are repressive technology. They feed the disinterest, the distrust, and feeling of disempowerment of the people they target. Young kids. Our future. Our future citizens.

## Polarization

Polarization is a dynamic process, not a “condition.” To be young, in any culture, calls for an inevitable process of radicalization in puberty. Due to the lack of rites de passage, moments of transitions, cultural markers that are broadly recognized, this phase is even harder for migrant youth. To radicalize (read: to be unbalanced and unable to see perspective in a particular cause or moment) can take many forms: in music, clothing, and style. In activism for animal rights, squatting, and the fight against climate change. In the Netherlands the focus of policy and politics when speaking of radicalization is on Muslim youth. Recently a very specific call made by the Ministry of Internal Affairs (BZK) was published, budgeting two million euros just for 2008 for two very specific actions: a) to prevent young people from turning away from the Dutch state and legislative powers, and b) to signal possible processes of radicalization as early as possible to local, regional, and national bodies of politics and governing. This comes as near to admitting that the state at this moment in its history sees itself as an entity that is necessary in the very way it functions now in a democratic society, as if there is no radical shift in influence and power to individuals who are able to network themselves in organized networks of all kinds. From the way it is framed, it is clear that for the state the first task is to canalize polarization, i.e., to identify, map, and neutralize. Yet this attitude presupposes that classical democratic institutions will remain intact. Manifestly denying the reality in the Dutch cities—46% in Rotterdam of migrant descent—trying to “stop” radicalization and polarization inevitably sets forward a view of Dutchness that is outdated and unable to inspire the 170 nationalities that make up the city of Rotterdam. Trying to halt polarization starts from a conservative and defensive attitude, and when targeted at youngsters who will rebel anyway—thereby taking their own daily environment as *sine qua non* of what constitutes possible worlds—it can only lead to further disciplining without dialogue. In contrast to this devastatingly negative position that seems more and more the hallmark of the current Dutch government and funding bodies, we aim to set up projects and lasting partnerships in communities that facilitate polarization.<sup>3</sup>

## Creative Research, or Poetry, or just feel the Air will you?

To signal processes of polarization is a very complex matter. Currently incident-driven policy is the rule—greatly exaggerating the suddenness of isolated incidents and instigated by a zero tolerance for serendipitous actions, coincidence, and messiness in general. The basic reason for this incident-driven policy is that actions are generated from the level of actual projects, from incidents that happen on the streets. In our projects the concept of design for social friction and the vision behind light communities drive the projects. The projects themselves have an iterative structure, a short cycle of concrete phases. This fosters a policy dashboard for all partners: local policy, youth, community workers, citizens.

How can we, in Beckett’s words, misunderstand each other better?

French maker-thinker Philippe Langlois claims that one of the problems is that working grassroots projects are “done” and very often not “thought about,” which attract more makers.

less thinkers: "Thinkers are perceived as a non-pragmatic pain in the XXX. Then there are ideal projects which are very good, but never take off. Alternating both could be a solution? Maybe an even better model would be a process where makers take time to show how easy it is to make to the thinkers, and thinkers show how doable it is to think and refactor to the makers? In an alternating fashion once again."

The primary claim to data gathering, determining what is data in the first place, what the status of information is, and how knowledge is to be made operational is no longer wed to universities and academic institutions. Neither is its output, the essay, the report, the document the sole format through which broadly shared notions on what is acceptable and real can be spread. Networks of professional amateurs, informed citizens, and self-taught experts as well as science itself are looking for new, trusted formats of transmitting data, information, and knowledge. The expertise of designers and artists in designing broadly shared events, conferences, local workshops, flashmob seminars in streets and neighborhoods—foregrounding humor, irony, passion and love—is essential.

### **Climate Change, the new Radical Story?**

We look up, and all around us ice is melting, strange flies appear on our doorsteps, ants we've never had before roam our houses, plants wake up among new neighbors. Those among us who pack their clothes for summer and winter are continuously at loss as to where to put what. The environment itself is changing themes, as if the scenes in her play are becoming slightly off. And we feel it. We care. Yet we act as if we are quite helpless. In not being able to identify clear agency we seem to freeze in fear as we feel we cannot do—do as in act: change—anything.

In Carl Schmitt's political philosophy he makes a distinction between the real enemy (*wirklicher Feind*) and the absolute enemy (*absoluter Feind*). This latter enemy is, according to him "der eigene Frage als Gestalt": i.e., that which negates your own position, that which questions your very existence, embodied. The real enemy denotes our possibility to act, we can react to challenges and threats. The absolute enemy appears on thresholds to new realities that are being born out of revolutions, not out of easy transitions. "Wir sollen nichts tun sondern warten," wrote Heidegger. We should do nothing but wait. How could he foresee the road that techné was traveling if he had not been able to articulate the notion of techné itself? Yet, here we are. And can we see technology as still helpful in the current strategies for sustainability, energy infrastructures, communication protocols?

It is clear that we do not need more data, more statistics, more graphs, when we can feel the change in the winds of climates. It is also clear that we do not need more visualizations or mappings or renderings of any kind to begin to argue that we need to understand better. We already do. Words are pushing themselves forward in particular sentences, bridges, and narratives, it seems. Weary of the challenge of the pun, the riposte, the clever retort, stream of consciousness for theory, we begin to look for fresh air.

### Artists are the pattern

Sharon Fernandez—artist and institutional change strategist—says the artistic response to the credit crisis and climate change is primarily about the challenge to match the “pluralities without”—the diversity of cultures, religions, everyday practices—with the “pluralities *within*” ourselves. In her view artists do not map patterns but ARE the pattern. Through the articulation of the need for recognition of the pluralities within, we wish to take discussions and practical encounters beyond the realization that we lack certain morals. We aim to fuse imaginative modes of confronting the “pluralities without” with a genuine attempt to formulate an ethics of how we might live with the pluralities within.

Finally I know what I have to do for you.

Because if I had words to make a day for you, I could sing you a morning golden and new.

Then I would make this day last for all time.

I'll go a walking for you my friends.

I will find the words to make a day for you, and I will make it.

That is a promise. Once I thought I had to stop the sun from turning, but however hard I tried I just could not get that to happen. I felt really bad for quite some time. And found a lot of voices. With them, with you, making a morning golden and new is easy as one, two, three.

One,

Two,

Three,

1 Rune Huvendick Jensen Tau Ulv Lenskjold IT University of Copenhagen [www.itu.dk](http://www.itu.dk)

2 As RFID is a pull technology, the RFID reader emits energy so that the passive tag gives its unique number (says hello, here I am). The EPC Global network layout makes it possible to track a bottle in your room (provided there is a reader in your door, floor, building) through a simple web query by typing the unique ID number (available through retail channels), as the ID of the bottle is logged into the local database (your computer, work server, office building network), which is hooked up to the EPC Global network. In this database through an RFID scripting language called Savant, the item's log is sent to an Object Name Server (ONS) where it can be accessed via the Web, for example from Tokyo. It is very difficult for a system to become so global, local, real-time, and easily accessible.

3 The term to facilitate polarization is from Peik Suyling, YD&I

# Faith in Infrastructure An Errorist Manifesto

**Hilary Koob-Sassen**

Ladies and Gentlemen, I am an Errorist.

I announce my error. In exchange I ask for liberty- to practice being in time.

Being-in-time-terror has a suitably slow-rolling and tepid name:

Global Warming, Finance Crisis.

Such tepid names are dangerous, but us Errorists, we are Syntactical Elaborationists here to give it a *new name*.

**Durability** is traction on change.

Durability is a measure of how closely the momentum of a structure's change navigates the actual contours of reality as they unfold- in the ever-passing-mo- A genome undergoing natural selection is like a phrase constantly trying to name reality more accurately. 'Adaptation' is the successful inclusion of experiences into that range of reality to which a lineage of creatures can respond.

With the accumulation of shit, the artificial residues of life create evolutionary feedback<sup>1</sup>, favoring the development of a materialism. Materialism's creature builds structures, and then adapts to them. Eventually the creature comes to fit so perfectly to the built structure, that its success relies less upon the genetic evolution of its own body than upon the material elaboration of these built external organs.

Elaboration moves along when structures subside from direct experience to a position of foundational relevance. The aqueducts have disappeared- we have faith in subterranean pipes. Upon this faith we buy a house. Upon this faith we live in New Orleans. An evil experience is the same for the living and the built: the floods were outside of that range of reality to which the structure could respond. The levee breaks and no hidden capacity reveals itself: no preternatural burst of adrenaline allows the slipping deer to spring to a foothold, no particularly well-fashioned piece of levee exceeds its nominal strength and endures. No response. These two syntaxes- genetic and materialist- must name reality faster than it changes. Otherwise, reality deletes them.

**The Elaborative Trajectory** from *economies* to *organs* is Paracultural- it advances across the lifetimes of many cultures, in the same way that evolution advances across the lifetimes of many creatures. Life builds and climbs its paracultural ladder up and out, Life seeks a divinely realistic structural solution to the constraints inherent in this scale of reality. Life seeks the exit of the cave- to pierce the scalar pellicle and deposit itself outside- naked and quivering and blind and alone- on a new landscape of possible formations.

These attempts are almost certain to fail. And yet, the five instances of success- the five instances of a culture of one scale successfully attaining the next- these are the 5 major punctuations of biological history. In the original big mineral mud puddle (between the mountains) a culture of replicating molecules arranged itself into the *first* virus. The rampant protein trading of a virus culture finally formalized its capital city into the first ever bacteria and today virus can't really live outside a city. Amidst the heightened diverse exertions of a culture of bacteria- orgiastically plunging in and out of each other- the origination of single cells with organelles. After not so many millennia of refining and specializing economy in a place, a culture of single-cells managed to carve their place into a body and become the first multi-cellular organism. Each of these opened up a new terrain for life, a new scale of biological complexity.

Cultures of all scales follow a historical template to a predictable outcome. Once a foundational traction on time is established, Life scrambles to pile up an ascent to traction on scale. Life tries to leap from the pile before the changes brought about by the pile-up conspire to bring the pile down. The further the elaborating culture structure or evolving body cantilevers-out from a foundational capacity, the more susceptible to foundational change it becomes. The power of high elaboration lies in its ability to abstract- in its capacity to attend to non-foundational things- precisely because it has placed so much faith in its foundation. For a highly elaborated culture structure there are only three responses to a collapsing faith in foundation: anticipatory reversion to rudimentary form, death in abstract splendor - or - an attempt to exit the cave and be the birth of

the next scale. To hold that fruiting endpoint present to the mind, present to the highest abstract power of culture. Present, perhaps, to the arts.

Before “Organific Economics 101” and “How to be Paracultural”, it is extremely important for me to refresh my errorist credential and for you to sharpen your criticality to an axe-murdering edge. I long for that chop. For I am in no way convinced of what I propose, though very committed to proposing it. For- Proposal is to culture what mutation is to creature: Often dull, rarely harmful, and every now and then it is just what we need: The fancy curved beak to suck the nectar out of the flower better.

So, **how do we become Paracultural?** How do we take on the trajectory of life, consciously as our own? I propose an exit from the Latin mass of biology. I propose this curvaceously updated old god Life. We need a new word game and a direct relationship with the godmaths.

We must not confuse development and origination. To say a nation develops is to imply that a highly perfected map of a final fruiting structure exists within that nation- that it merely awaits the set of experiences- a mother- which would allow it to unfurl its perfection. In actual fact, the main work at hand is to find out what- if anything- could be astutely considered analogous to DNA- to its syntactical structure and to its meaning.

I will tell you what I think- almost definitely wrong:

No structure song is complex enough to be sung into world body, except the standard human system of organs. In that garden 4 billion cells sing in schizophrenic unity- a single human consciousness. That system is the only song complex enough for us each to sing it together. The translational diversity of our minds. The universal sameness of our bodies.

Maybe.

But definitely and for sure embryonic development is not evolution. It is a highly refined process-product of evolution. And again, no guide to where we stand. Furthermore, evolution is over. Its time frame is so slow that it is no use to us. We are agents of extinction, but not of evolution. Far beyond all else, we are agents of elaboration. We are practicing and building a world body around ourselves. The first body of that scale. We are a scalar leap in complexity from the cell culture that built the first body. And yet, that is our closest analogy.

We must embrace the messy process of becoming- of first origination- and forget all ideas that the world is a fully evolved thing in some stage of embryonic development. Instead let us say, “The nation state system is *like* a proto-organ in so far as it is a universally inclusive structure. As the organs of a body are universal to its cells.” We must be rigorous in our science and also in our poetry. We must be pious and poetic scientists, performing exegesis on the analogy map of the experiences of other scales of culture. We must seek to be like the five cultures that pushed their art across the threshold between the built and the alive.



Humanity stands inside a framework of its own creation. We have sung this paracultural ladder into existence. From a spore; from a way to navigate reality and endure: planting, irrigation, harvest unchanging. To a bridge; a materialism which supports the procession of humanity forward through time and changing hegemonic formulations. And now we have come to a more open place where things shake and start to break. We put our faith in multiplication of a new kind of structure: the web, the market and the bubbles. The bubbles, which are like an unsatisfied hunger. The bubbles, which long to be cathedrals- to be proper investment vehicles. In elaborating global economies, we evoke *world organs*. How do we sing them into structure?

Bailing-out banks, sandbagging levees and subsidising ethanol must be characterized as “thrashing about”- an attempt to surmount an evil experience by rampantly generating small proposals- in the hopes of developing a response. We must move from pushing sugar into overloaded liver and set out to formalize some lovely kidneys- solar seas and roiling greens. We must be Organific Economists seeking-out new systems in the Pattern of the Plans; advancing the trajectory onward from economies into organs.

For example, the web is a global- but not universal- economy of information. It evokes a world organ of meaning: the super-nucleus of a rampant design democracy. A spherical digital google cathedral earth map mosaic- flipped outside-in. Inside 8 billion humans’ incarnations are surveying the entirety of what could be. The overlapped transparencies of all humanity’s dreams. So difference is detectable, though majority creates a denser line. Our syntax octopus of proposals and our pattern of the plans replaces the lack of plan plan and the invisible hand. With a higher resolution name. High resolution in the sense of high informational density, and in the sense of inspiring resolve to act. That is the organ that our unfinished web economy seeks to be. It is natural, but not inevitable.

**Organific Economics Equation 101** allows us to assess the GLD:

The durability of a creature or a culture—or indeed the durability of all of Life itself—the horsepower of its traction on change—the speed with which it advances into future experience—Life’s durability is a function of the efficiency of its experiential metabolism and the domain of its activity.

Life’s metabolism: Its capacity to translate an experience into a foundation for further experience. How quickly and how *absorbently*- to how many of its constituents. *To how much of itself can Life present the opportunity* to know an experience, develop a structural response, and then move that structure on down into the faith zone.

**multiplied by**

Life’s Domain: The breadth and depth of matter to which and with which Life can develop a response. How realistic is Life’s picture of reality and how realistic is its materialism. Can we sculpt atoms, molecules, life forms, planets.... just about. Our over-cantilevered bridge cannot

support a response to the warming waters below. It cannot frame the sky as organs. It suffers an unjustified faith in infrastructure.

We must hope that we cannot design the world organs themselves- we must pray that they will be too complex. We can only build a structure to support them, and leave the sky open, for their growth-explosion. We can transform our bridge into a trellis- a *Rankgitter*- a growth grid. We can switch from procession through TIME to an inhabitation of the M.T.I.E. The economies of preparation for the next scale. The Multiple Transnational Infrastructure Economies. We can cease to *progress*, and shift to preparation for *ascent*.

With our ancient extracted, refined and recombined modernista materialismus we can build the structures that will support the *new* materialism. The materialism of a garden of organs on earth, which will be lush if we provide it good handholds for ascent. We must be furious builders of structures, which scream NO to progress as such. That are steady machinegun perfection tempered steel bridges that are forever. That Life can get to know like bones and grow around. Life seeks to mount the built trellis, to climb up and out into the cosmos. It seeks to climb the square god of culture and manifest the next round god of life.

Life seeks to bring all of itself into itself—into its experiential metabolism. Life seeks the Mental Jordan genius who is starving in a desert. Life screams for her to help it explosively reorganize the moon. The moon- that ancient image of the exit of the cave. Life longs to devastate its simplicity with rampant green complexity. To unleash its viral hordes onto the helpless dust of Venus. To suck the iron out of Saturn. If we are to be Paracultural, that is the holy war we must take up. Sneaky Life launched its attack in a province of the cosmos. Sneakily it worked a space between the atoms and the planets. And now through We- so super fancy- a frilly life fractal complexity- We must dance out on the palate of the desert, We must dance the lack of life into complexity. We must finally conquer this damned shifting stone, which threatens to chuck life off like a clinging skin, to rub it off on the sun. We must conquer the world for life and claim its next domain!

Presented at the Serpentine Gallery  
London, October 18, 2008

1 F. John Odling-Smee, Laland, Feldman; "Niche Construction", Princeton University Press, 2003

# Of the disappearance of the societal causes and consequences of climate change in the evidence of “natural catastrophe” as natural law

Ulrich Beck

Here Max Weber's legitimation problem arises once again and likewise in a new form. To what extent has climate change effectively introduced a regression of social inequality requiring legitimation to natural inequality requiring none? To what extent, therefore, in the age of climate change must Jean-Jacques Rousseau's Discourse on Inequality (in which he demonstrates the consequences of man's external relationship to nature for relations between men) be read backwards? Climate change, sociologically examined, is Janus-faced. Humanity's threat to itself can be used, in a paradoxical modernization of modernity, to push even further the right to dominate nature, in order to overcome that same threat. At another extreme, taking leave of modernity could, in the face of the “natural” catastrophe, be accomplished by converting social inequality back into a natural phenomenon. It is quite possible that both the exacerbation or defusing of the legitimation problem will exist conflictually side by side. Indeed, that the interpretative patterns of different regions will polarize accordingly. Be that as it may, there is no choice but to also open people's eyes to the possibility of barbarization.

The naturalness of inequality first of all finds expression in the insurmountable difference between climate and weather. The natural law evidence of the violence of storms, floods, drought is inherent in the everyday experience of weather. By contrast, awareness of climate change is the exact opposite of a "natural" experience, but rather a highly professionalized view of the world, in which, for example, the abstract models of climate researchers determine everyday behavior. Even if it should become normal for New Yorkers to walk around at Christmas wearing bikinis and the Mediterranean weather ruin the Austrians' ski resorts, climate research always comes up with the same statement: individual examples of extreme weather conditions are no proof of climate change, at best an indicator. For people living in those regions most radically affected by climate change, the natural force of the weather is so overwhelming that the social inequalities between cause regions and affected regions are rendered invisible. In the escalating struggle for survival abstract climate models are no longer important. An almost "natural inequality law of climate change" à la Malthus suggests itself: since those worst affected are thrown back on themselves by the "naturalness" of their catastrophic situation, they accept it. The struggle for survival isolates people from one another. The principle "life is what you make it" is replaced by the opposing principle "it's nobody's fault but yours." Consequently guilt increases with the degree of misfortune and the most unfortunate of all is also the guiltiest. Misfortune and guilt go so tremendously well together in the "natural fate" of climate catastrophe, that it would be downright outrageous, as an outsider (moved by a concern for ecology and justice), to intervene in this harmony.

If the basis of legitimation of global inequality was shattered by the worldwide spread of the norm of equality, then now it is being reestablished: Under the impression of the "natural" catastrophe its societal source disappears, and nature itself becomes the legitimation.

Excerpt of the opening lecture for the sociology conference "Unsichere Zeiten" (Uncertain Times) on October 6, 2008 in Jena.

# What is a Climate Artist?

Roger Malina

## Introduction: Science as Cargo Cult

Rereading the *Origin of Species* by Darwin on its 150th anniversary, one is struck by the lucidity and humility of its argumentation as well as the transformative power of its conclusions. Yet the scientific theory of evolution is still not widely understood or accepted by most people. Arrhenius first wrote about the impact of increasing CO<sub>2</sub> on global climate in 1896, and yet the issue was still argued at the highest levels of government until recently. Somehow the ambitious enlightenment projects of the Renaissance and the Scientific Revolution are incomplete. Most scientific knowledge is not culturally appropriated. In many ways science has become a “cargo cult.” Many people who use the cell phone for daily survival could not explain the difference between a photon and an electron.

### **Making Science Intimate**

I believe that one of the reasons for this is that common science does not make common sense. The vast majority of the information about the world I study as a scientist is mediated to my senses through scientific instruments; almost none is captured directly by my naked senses. I can tell when my instrument is hallucinating. I develop new words to describe phenomena I encounter that have no counterparts in daily life. I can manipulate concepts that are not grounded in my experience as a child. But this intimacy with the world mediated through instruments is not the daily experience of most people.

I think one of the interesting new developments is a generation of artists that is now collecting data about their world by using scientific instruments—but for their cultural purposes. Not only are they making powerful art, they are also making science intimate, sensual, intuitive.

### **Micro-science**

A second reason for this disconnect of modern science and public understanding is that science is carried out mostly in guarded (mostly male) monasteries. This institutional isolation of science is a historical accident of its development, particularly because of its close connection to government and industry in wartime. But there are signs that kinds of “micro-science” are developing, a new form of people’s science that is made possible by the Internet and the new public access to scientific data and instruments. Science producing communities have ownership over the knowledge they help generate, and this knowledge is locally rooted and meaningful. To coin a phrase, micro-science is to the National Science Foundation what micro-credit is to the World Bank. I am not calling for a renewal of amateur science but rather for embedding mediated contact with the world in everyday life. The work of technological artists is part of this movement.

### **Hard Humanities: The Engineering of Rapid Cultural Change**

I think that the encouragement of intimate science by artist and micro-science at all levels of society is an important component of the hard humanities. The hard humanities are the disciplines in the arts and humanities that will be essential to navigating the cultural transformation we face within the next two generations. Controlling climate change, abandoning our dependency on oil for energy, creating the conditions for sustainable development, these will require as deep a cultural transformation as our ancestors accomplished over tens of thousands of years in moving from agrarian to urban societies. The work of artists in promoting art-science and art-technology collaboration is, in a very real sense, part of the toolkit for survival. This is a strong claim: artists using new media and new technologies are not creating playthings for rich people but are part of the rapid cultural engineering we need to do to face the burning issues of our times.

### **Landscape Artists**

We know what a landscape artist is, and indeed landscape artists over several hundred years have helped shape our cultural imaginaries of the relationship between humans and nature. A key transformation brought about by Renaissance artists and scientists was that they recontextualized humans within the natural world as well as the relationships of individuals to their societies. When Paul Cezanne painted and repainted the scenery of Provence, he developed a visual vocabulary

and artistic stance that has influenced art making for a hundred years. When Claude Monet and Vincent Van Gogh laid the groundwork for new ways of representing the world, it was not at all obvious at the time what the impact of their new way of seeing would be; today thousands of landscape artists work in their traditions.

### What is a Climate Artist?

But what is a “climate artist”? A hundred years from now we will identify the climate artists working today who helped shape a new cultural imaginary. I believe that “climate art” will somehow involve making information about our changing world perceptible and sensual and making sense data accessible through instruments and not via the naked body.

Today artists like Marko Peljhan with his Makrolab create new kinds of artist’s studios that make sensory connections to the data environment; the artist claims the “landscape” as a territory accessible only through scientific and technical instruments.

With her *Pigeon Blog* Beatriz da Costa engages pigeon racing communities in collecting environmental data for art purposes; the data about pollution levels is collected and made “sensible” not only as abstract data but also as information embedded within a particular social community.

Andrea Polli works in urban environments, making local micro-climates visible. In her work *Heat and the Heartbeat* she sonifies small changes in ambient temperature and projects future climate change.

Sabrina Raff monitors oxygen levels and translates them through an art-making robot that draws on the walls of the gallery. Her art-making instrument takes data about the world and converts it into “visualizations” that are the equivalent of the process used by landscape artists, although they involve “mediated” sense data.

In her work *Remote Senses* New Zealand artist Janine Randerson takes data collected from orbiting satellites, Chinese and American, to project visualizations of meteorological data, converting large-scale global information to local meaning.

With her *Inside Outside Handbag* Katherine Moriwaki and other artists working with smart textiles create clothing and objects that respond to ambient environmental data. If we were as sensitive to methane and carbon dioxide as we are to heat and light, we could not ignore the changes in our air.

Argentinean artist Andrea Juan makes expeditions to Antarctica to make performances linked to the measurement of methane levels and ice melt, just as the artists on Darwin’s journeys sought to make sense of scientific data collecting.

We do not know yet what kind of art making will best help us transform our cultural relationship to climate, but I believe it will involve artists who collect scientific data with instruments but for artistic purposes.

### Activities of the Leonardo Network

The Leonardo organization and network was founded over 40 years ago when the term “computer artist” was still disputed. Such artists have appropriated the computer as a means of cultural production; computers are now more widely used for cultural and social purposes than for industrial or scientific purposes. Today we see artists involved with science and technology who work in a variety of ways on the burning issues of our times. To do this they must now appropriate the sense data obtained using technological instruments. As I have articulated above, I think this work is part of the toolkit needed for the rapid cultural engineering that lies ahead.

The Leonardo “Lovely Weather” working group<sup>1</sup> has been discussing and documenting the work of artists involved today in issues connected to climate change. A number of texts have been published in Leonardo publications and Web sites.<sup>2</sup> Our current call for texts “Environment 2.0” has been organized by Drew Hemment and the work will be connected to the Futuresonic conference.<sup>3</sup> We are working with the Letterkenny Art Center on artists residencies, which are teamed with scientists working in specific places that are particularly sensitive to small changes in micro-climates.

Over recent months a number of us have been developing the concept of “Open Observatories” which disseminate tools, techniques, data, and knowledge for carrying out projects in micro-science, intimate science, people’s science, and crowd sourcing.<sup>4</sup> These open observatories would allow small communities to develop locally generated knowledge that can be the basis for local action to help these communities evolve rapidly and respond to the changes that will be needed to confront climate change, breaking oil dependency, and sustainable development. Open observatories would include the work of artists collecting data for cultural and artistic purposes as well as community leaders and researchers seeking to find ways to mediate personally meaningful access to scientific knowledge. Finally, Open Observatories might become the locus for societal retroaction on the direction and content of future science, and they might help establish a new social contract between science and society. They might provide test beds for climate artists.

1 <http://www.leonardo.info> and <http://www.olats.org>

2 *Lovely Weather*: [http://www.olats.org/fcm/artclimat/artclimat\\_eng.php](http://www.olats.org/fcm/artclimat/artclimat_eng.php)

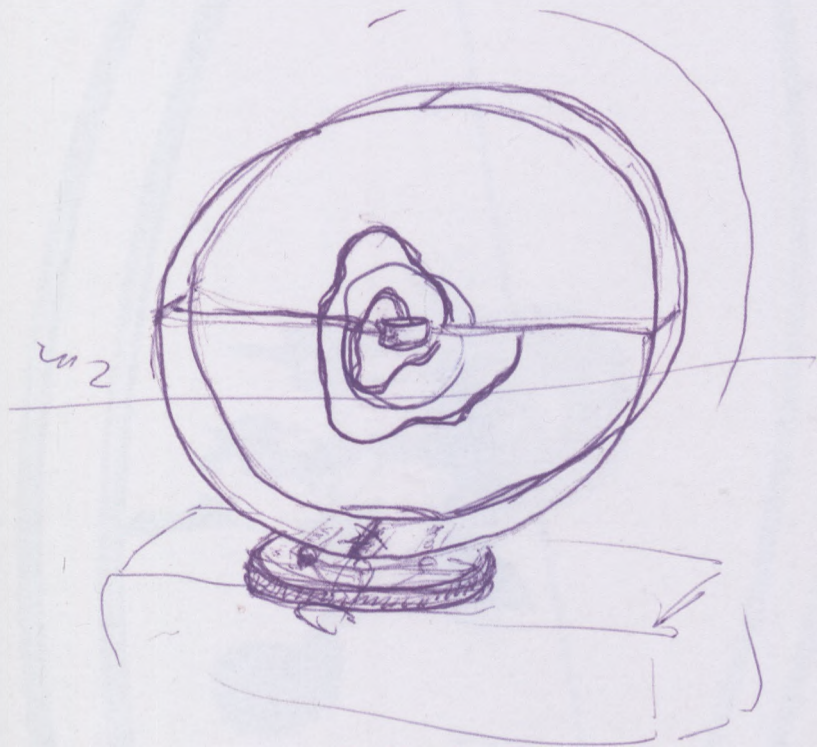
3 *Environment 2.0*: <http://www.olats.org/fcm/artclimat/apelcontribDrewHement.php>

4 *Open Observatories*: [http://139.82.134.7/open\\_observatory/](http://139.82.134.7/open_observatory/)



**Christian Gützer**

# **Grow – Fruits of Kronos**





# Beyond North: An Expedition in Four Parts

**Laura Schleussner**

Since the rise and early heyday of arctic exploration in the 1800s, images of the snow-and-ice-covered North have played a special role in representing the outer bounds of the civilized world and the purest and most elemental challenges that nature posed to human civilization. The late 19th century the polar regions were the subject of a veritable “craze” of public interest, and the fates of explorers—considered champions of national character—were followed with intense interest. In facing the most rugged of frontiers, such men asserted, albeit symbolically, reigning notions of statehood and territorial potency.

In the 20th century it was the race for space that captivated the imaginations of several generations. Spawning a surge of new technological developments, an explosion of science fiction fantasies, and a paradigmatic shift through a newfound perspective on earth from above, space also represented an extra-terrestrial arena in which the tensions and conflicts of the Cold War were played out.

In response to climate change, public attention has been redirected towards the earth—and especially towards the poles. Sensational images on CNN show ice shelves breaking up in the Antarctic summer, dramatic photographs show polar bears adrift on tiny scraps of ice, and reports

predict a potential ice-free summer at the North Pole. Scientists repeatedly describe the Arctic regions as “barometers” of the changes taking place on a warming planet, and the poles have become the distant geographies onto which we project the fear of apocalypse, the hope of human agency, or the promise of scientific solutions.

Many artists are also engaging with these regions. From the proposed touchdown of Marko Peljhan’s Makrolab in the Arctic to the floating residencies organized by the Cape Farewell project, an increasing number of art projects are helping to raise public consciousness about the magnitude of the changes taking place in regions that are so geographically and experientially remote from daily life in developed, urban space. Arctic terrains are no longer so impenetrable: satellite photos, robots, weather instruments, and webcams enable us to vicariously experience these geographies like never before. Yet in an era when so much of our understanding is mediated by images and instruments, we are moving faster and faster away from a direct and intuitive understanding of the natural world—into a time in which such experience could become an elite privilege.

In addressing climate change a whole range of artists is exploring questions posed by a project such as transmediale’s DEEP NORTH: What constitutes natural experience in the digital age? How to respond to seemingly overwhelming environmental challenges? What shape and form do our romantic visions of the North assume today? What responsibilities does the privilege of technology entail in the context of a warming planet? And, finally, in a post-colonial era how do we navigate the notion of “common property” as new claims are laid on emerging territory and natural resources? An exploration of DEEP NORTH follows a path from the North Pole to our own living rooms, and back again—suggesting that the poles are merely flash points of a far deeper cultural transformation beginning to emerge across the globe.

*Fjord Uppernavik, Grönland. Far above the Arctic Circle. A camera pans across an expanse of a sea filled with ice. With the slow movement of the film the arctic waterscape shifts and transforms, sometimes iridescent with the crisp cold blue of the northern waters, sometimes misty and hazy with a dry, desert-like yellow. Dotting each scene are tiny human figures, individuals apparently stranded on ice floes—dwarfed by their surroundings, disconnected from one another, they face the camera and the stark, barren beauty of their surroundings in solitude.*

At first glance Charly Nijensohn’s *The Polar Project* seems to recall a longstanding tradition of romantic landscape imagery: the figure, insignificant and small, placed within an overwhelming display of nature’s force and majesty. The tensions inherent in the age-old human encounter with nature is at the core of Nijensohn’s work, who has traveled the globe from the salt lakes of Bolivia to the Atacama desert of Chile, Antarctica and Greenland to film in some of the planet’s most remote and deserted regions. The sheer immensity and emptiness of the video’s scenarios, filmed in northern Greenland in collaboration with local Inuits, summon all the contrast between this open expanse of icy water and the dense population of our cities with their sprawling ant-hill settlements.

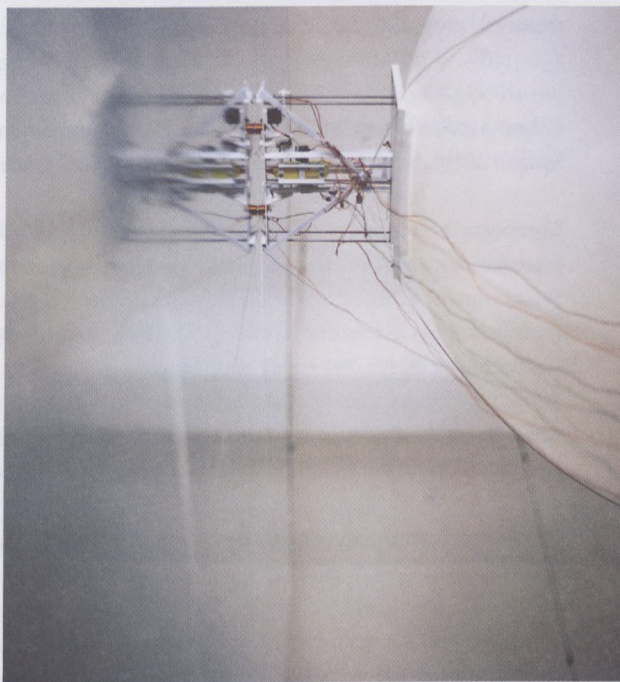
At a point in time when changes seem to be taking place with startling speed and when cameras and satellite images seem to have no problem penetrating all ends of the globe, the decelerated, existential loneliness of Nijensohn's work emanates with iconic power. In the context of what we know, the work is clearly an image of distress: a metaphorical portrait of indigenous peoples set afloat as their ancestral territory dwindles. Yet, the people on the ice do not signal or gesture but mirror the stillness of the frozen landscape. There is something like an element of confrontation in the pared-down staging of the film, for although one cannot make out the features of any face, there is the sense that the individuals on the ice are silently staring into the camera, observing, waiting, looking back.

Colonization, the arrogance of early anthropology, and the destruction of indigenous culture are some of the deeper memories buried in this encounter. This inglorious side of Arctic exploration is told by another work from the same year as Nijensohn's: the documentary film *Minik* (2006) by Axel Engstfeld chronicles the true fate of a young Inuit boy taken with his father and three relatives from Greenland by Robert Perry in 1890s and brought to the Museum of Natural History in New York as specimens for study. Many Inuit filmmakers are also telling their perspectives on history through films such as Igloodik Isuma Production's *Kiviat vs. Canada* (2006). Finally, another artistic work bears a relationship to Nijensohn's. Susan Hiller's ironically titled *The Last Silent Movie* (2007) addresses the disappearance of indigenous cultural heritage; it consists of a simple black screen accompanied by archival recordings of languages now lost or severely endangered.

In a much less explicit way *The Polar Project* is also a work about loss and arrogance. Engaging us with images of an overwhelming landscape, Nijensohn does not shy away from using all the metaphysical force of nature's beauty to deliver a universal message. There are at least two more things that the gentle movement of the work seems to need to tell us: Nature's timetable is different from our own, and we must learn to slow down and listen to what the dramatic changes in the natural world are telling us. A running commentary of text accompanying these gently passing images says just as much, but the title says it all. *The Polar Project* does not just speak to the transformation of a distant geography but summons the major task facing a world that has long become global, and so the solitary native Greenlanders standing on the ice become representatives of a far larger community.

*North Pole, 4,200 meters under the sea, summer 2007. Two Russian capsules Mir I and II submerge to the arctic seabed to plant a titanium Russian flag symbolizing the country's claim to the 1.2 million square kilometers of territory that Russia considers part of its continental shelf, the Lomonosov and Mendeleev Ridges that run across the pole. The action is sharply rebuked by the US and Canada. According to the BBC, scientist Sergei Balyasnikov of the Russian Arctic and Antarctic Institute is quoted as saying: "It's a very important move for Russia to demonstrate its potential in the Arctic... It's like putting a flag on the moon."*

Floating slowly and evenly through space and guided by its digitally programmed gluing mechanism, the inflated, white sphere of Jana Linke's work *click & glue* recalls an exploratory robot of sorts. It consists of a large, perfectly round helium balloon, a digitally programmed glue gun and meters of nylon thread. Operating within the self-contained system of four metal walls, the balloon repeatedly docks onto a bit of wall, where it fixes its continuous nylon line and then jettisons off to the next destination. With a slow, determined pace the machine continues this process repeatedly until it has created such a dense mesh of strings that it becomes entrapped in its own net and can move no further.



**Jana Linke**  
**Click & Glue**

While neither an explicitly political or ecological work, *click & glue* has a pristine simplicity that suggests ideal space. It seems to function as a quiet yet eloquent example of the order of entrapment, an automated system randomly programmed to perform its own demise. From the timed explosion of Jean Tinguely's *Hommage to New York* (1960) to Ant Farm's *Media Burn* (1974) and Survival Research Laboratory's ongoing robotic battles, such self-destructive mechanisms have their unique place in the history of cybernetics and art. Often their spectacular explosions and pyrotechnics express the kind destructive violence that seems to mirror the nihilistic frenzy of war.

Different in *click & glue* is the gradual, gliding rhythm of the work, which does not self-implode but slowly and surely entwines itself in a web of its own making.

In the context of DEEP NORTH many associations are possible: the white sphere as a stand-in for a perfect globe, a mechanized Gaia on a misguided path. Perhaps due to the prodding, probing nature of its activities, the work certainly evokes technologies used to measure and traverse otherwise inaccessible regions: droids that perform experiments or repairs in silence of space, inflatable weather balloons, helium-filled surveillance devices and hydrorobots trailing long optical fibers.

*click & glue* can function as an elegant, hushed reminder of how developments in technology go hand in hand with new phases of human exploration. At the same time, there is something fatalistic about the device, which also has a model-like character. Although the work is too lovingly designed to be anti-mechanical, its entanglements seem to suggest projected outcomes in which the word "progress" should be used with care.

### **Cyberspace, A Climate Change Online Discussion Forum Spring 2008, Selected Posts**

There is, at this very moment, approximately 900,000km<sup>2</sup> MORE ice in the Arctic than this exact same time last year. How can we be at a tipping point when there's 900,000 km<sup>2</sup> MORE ice?!?

my friend ... it's all less than a couple feet thick. It won't matter in a couple months ... don't get so upset ... you'll see very soon.

well it's not like the air temperatures in the Arctic are in the 40s or 50s or something. It's 36 in Barrow, AK right now! (at 6PM AKDT)

Well, you all can argue about the new Ice Age all you want, but it's not going to happen until after the Arctic Ice Cap melts.



It [global warming] seems intuitively correct. Like the assumption that eating cholesterol will clog your arteries and lead to a heart attack. Heck, half the people who have heart attacks have so-called “normal” cholesterol levels and blood pressure!

My wife works in a cardiac intensive care unit and you’d be amazed how many times I hear about cases where people who lead healthy and active lives come in with serious heart problems (heart attacks or whatever) and die in their 30’s. Then you have people that drink and smoke all the time living to be in their 80’s and 90’s. Remember George Burns? He smoked a cigar every day and lived to be nearly 100.

In the social realm of the Internet and the fictional space of Hollywood film are arenas in which unlikely encounters and chance meetings readily take place. The title of Reynold Reynolds’ film *Six Apartments* (2006) seems to promise a popular cinematic plot-line: parallel existences gradually wind their way together in improbable twists of fate woven into the daily routines of its characters. However, as the film gradually moves through the lives and living quarters of six solitary individuals, it becomes clear that this work is something else entirely. In images of decay, neurosis, and self-neglect the video portrays some of the more lonely habits of *homo sapiens*—along with the flourishing activity of symbiotic bacteria. In an elderly woman’s apartment food in the freezer suddenly melts and blossoms with mold—suggesting a parallel process to her physical decay. While one young woman sleeps out a hit in the bathtub of her filthy apartment, another performs obsessive cleaning rituals in her sanitized living space. With the male protagonists things are no better: an overweight man watches TV in the dark while filling the room with cigarette smoke. One plays with knives and poisonous spiders, and another seems utterly lost in his chaos of junk piled to the ceiling. The only common element running through their lives are the reports sounding from the radio or television about various climate-related disasters.

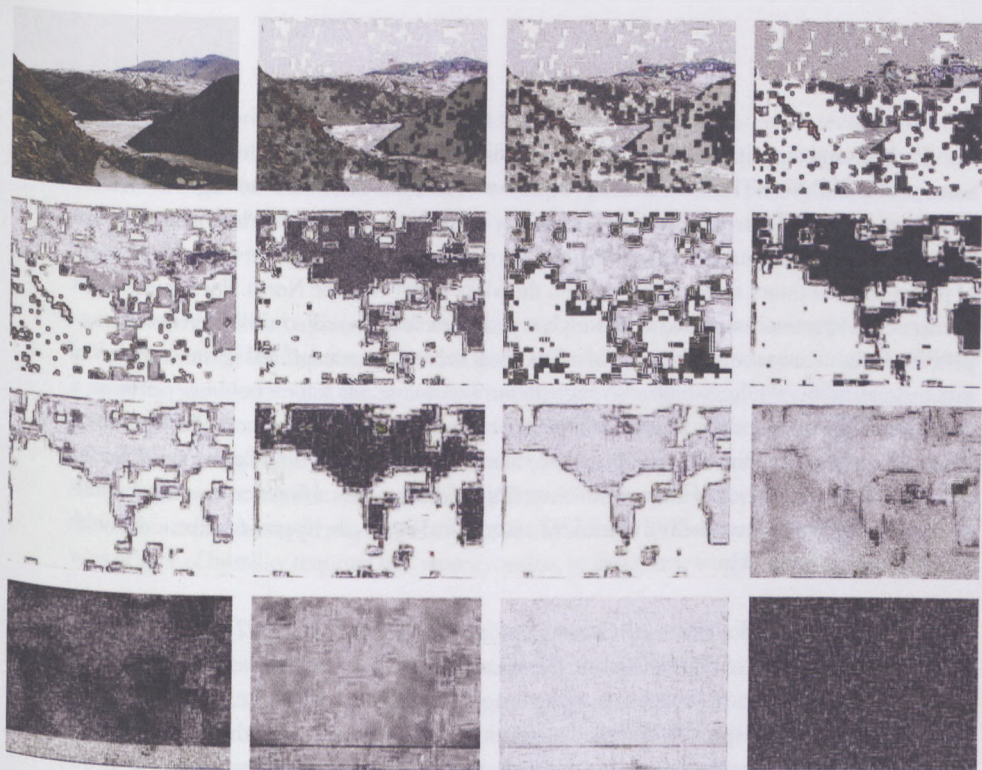
Even to the eye trained on popular media, the video can be hard to stomach. Not just due to graphic, sped-up shots of decomposition—for the most part the events shown in each apartment are spectacularly undramatic—but because of the overwhelming mood of stagnation and the prevalent “smell” of death coming from each room. As the external world seems to be coming undone, the individuals portrayed seem all the more deeply ensconced in the (often self-destructive) patterns and routines that make up their creature comforts. Perhaps this is what is most unsettling: the fact that the constant flow of disastrous news seems to pass as steadily and easily through the protagonists as the viewer does through all their different lives.

Why it is so difficult for us—as individuals, as governments, and as a global community—to respond to the increasingly clear threats of global climate change? Is it the complexity of opinions and information about the issue? A growing lack of experience with the natural world? Or is it, as in the rococo of rot depicted in *Six Apartments* suggests, that having learned to live with the knowledge of their own death, humans seem to have an innate ability to repress traumas that are

seem sufficiently geographically or temporally removed? Millions live in close proximity to the San Andreas Fault Line, and smaller populations still reside at the foot of Mount Etna. Long before and far beyond climate change exist countless examples of a particularly human disconnect between habit and risk.

In Reynolds' work the strange inability of the media to arouse any spectator response delivers a particularly negative social commentary. Somehow the isolation of the apartment dwellers has enabled them to adapt to the ambient news of threat and disaster. Political theorists might suggest that the media, as a medium for the political and economic powers that be, is also to blame for our inertia. For example, Mark Lacy suggests that orchestrations of terror and security play right into our carefully maintained comfort zones: "To live with moral anxiety is to feel a sense of discomfort and insecurity, a recognition that human (and non-human) suffering around the planet cannot be placed into the safe category of a Second-Order problem."<sup>1</sup> However, an intelligent aspect of Reynolds' film is his depiction of different character types, albeit in the extreme. Nevertheless, as viewers it is likely we will find some unflattering aspect of ourselves in one or the other, and this reflected image does entail a certain galvanizing shock. What we do with that is left to us.

On an ironic note, micro-organisms such as those active in Reynolds' film could hold a key to the future. Craig Venter, the controversial scientist who "rapid sequenced" the human genome, sees microbes as a key potential climate altering "technology." His company Synthetic Genomics is trying to engineer so-called "supermicrobes," which would be able to remove CO<sub>2</sub> from the atmosphere.



**Emma Wieslander**  
**Glacier 60000**

*Ross Ice Shelf, Antarctica, March 2000*

*Antarctic: B-15 Iceberg - One of the largest icebergs ever seen. The iceberg, at nearly 300km in length and 40km in width, was one of the largest ever seen at the time of its formation in March 2000. Since then, it has broken into two main icebergs and other smaller ones have formed including B-17, probably caused by B-15 crashing into the ice-shelf.<sup>2</sup>*

Resembling a series of abstract paintings or Photoshop compositions, radiometer images taken from space show the genesis of an Antarctic iceberg as a visually puzzling, if not spectacular event. Shifting “clouds” of grey offer little information for the non-scientific eye. Perhaps how little is commonly known about the regions of the poles has something to do with “illegibility” of scientific imaging for the man on the street or the ingrained visual stereotypes of wintery landscapes stemming from cozy Christmas scenes or *National Geographic*. (A quick quiz: which continent holds the largest desert in the world? Yes, Antarctica.) Pictures of weather stations, interviews with scientists mummied in Gore-tex, satellite images, and endless expanses of albedo white do not seem able to substantiate, especially for the increasingly image-fed information consumer, the drama of the story of what is happening to the climate at the poles.

Confronting the expectations placed of the visual “illustrations” of climate change in the context of DEEP NORTH, several artists explore an inherent “stillness” in images associated with these regions of extreme cold. While this may represent a problem for the communication of climate change, the question arises whether this quietude is not perhaps an enduring element of poetry that continues to be projected onto the white surfaces of the North. Portuguese artist Fernando José Pereira has created an alluringly cryptic series of video clips in his video *Remoteness* (2008). Heightening the film’s sense of mystery, all scenarios are captured in the darkness of night. An abandoned filling station, strange pumps on what seems to be a bobbing platform, a scene possibly from a bridge—all seem to underscore the depopulated loneliness of a snow-filled space occupied by machines. At one point the camera creeps up to a bright light coming from a window while a soundtrack of a crowd of conversing voices emerges. However, the camera pulls back and the voices fade. A feeling remains of a place that seems utterly god-forsaken, although filmed by an eye in the sky.

In Emma Wieslander’s deceptively simple work *Glacier 600000* (2007) the much talked about melting of the glaciers is reflected in a five-minute film. Technically the work makes productive use of the information lost each time a jpeg image is opened and closed, i.e., compressed and decompressed. Using a specially designed program, Wieslander performed this process several thousand times and then created an animation of the resulting jpegs. The viewer follows this process by watching a rather unspectacular image of one of these ancient ice formations slowly break down—going from a grainy photo to pixilated abstract forms, a blank white screen, and, finally, a mesh of grey.

While the instability of the image seems to be a direct parallel for the precarious fate of notably warming glaciers, the work also speaks to a 20th century fallacy of representation. On the one hand, it is Walter Benjamin’s notion of the loss of aura (through the mechanical reproduction of an image) taken to exponential dimensions. On the other, it suggests that a loss of detail and gain of abstraction is somehow almost more effective in addressing the enormity of the situation we are facing than any painstaking rendering.

In conclusion, this work calls to mind another: the film installation *Message from Andrée* (2005) by Joachim Koester. In 1897 three Danish explorers, Andrée, Fraenkel, and Strindberg, took off from Spitsbergen in order to circumnavigate the North Pole in a balloon. On board were a stereoscopic camera and a supply of Kodak film. The adventure was ill-fated, and the men disappeared forever into the sky; their bodies were discovered in 1930 on White Island along with a box of undeveloped film. The artist writes:

While some of the photographs depicted scenes after the landing and the following struggle on the ice, others were almost abstract, filled with black stains, scratches and streaks of light. Most historians studying the expedition ignored this layer of “visual noise.” I, on the other hand, have made it my focus. If language defines our

world, the black dots and light streaks on the photographs can be seen as bordering on the visible, or marking the edge of the unknown. Pointing to the twilight zone of what can be told and what cannot be told, narrative and non-narrative, document and mistake.<sup>3</sup>

Accepting climate change—still a difficult and painful process—necessitates a return. The poles are not regions “where no man has gone before.” The attention and energy required by a warming planet mean that the notion of frontier is now changed altogether. The question that artists will help to continue to explore is what new frameworks (of power, territorial conflict, collaboration, communication) will inspire our imagination of the future on this planet. Gradually becoming more accessible, the extreme North and South represent special geographies upon which this exploration will play out. Heading into DEEP NORTH means to boldly go...but with a new degree of humility required by a more crowded, multi-centric world.

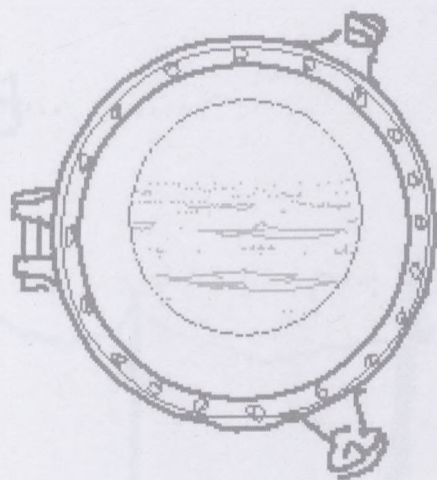
- 1 Mark Lacy, *Uncertainty, Climate Change and International Relations* (New York: Routledge, 2005), p.130.
- 2 See <http://www.atsr.rl.ac.uk/images/sample/ross/index.shtml>.
- 3 Joachim Koester 2005. Statement published on the Galleri Nicolai Wallner website: <http://www.nicolaiwallner.com/artists/joachim/messagefromandreertext.html>

Simon Faithfull

**Drawing no.39:**  
**Weddell Sea**  
**Latitude: s73°25.150**  
**Longitude:**  
**w024°41.230**

**Drawing no.31: Haley**  
**Research Station,**  
**Antarctica**  
**Latitude: s76°**  
**Longitude: w026°**

**Drawing no.25:**  
**Starboard, Weddell Sea**  
**Latitude: s64°45.568**  
**Longitude:**  
**w004°58.940**



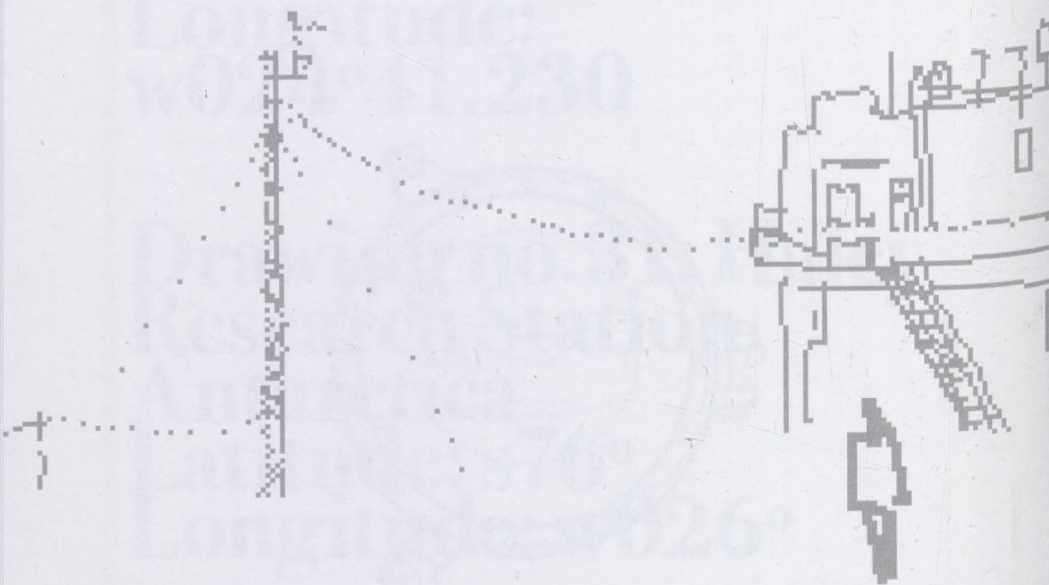
Drawing no. 39:

Weddell Sea

Latitude:  $s73^{\circ}25.150$

Longitude:

$w004^{\circ}51.230$



Drawing no. 24:

Research Station

Antarctica

Latitude:  $s76^{\circ}$

Longitude:  $w026^{\circ}$

Drawing no. 25:

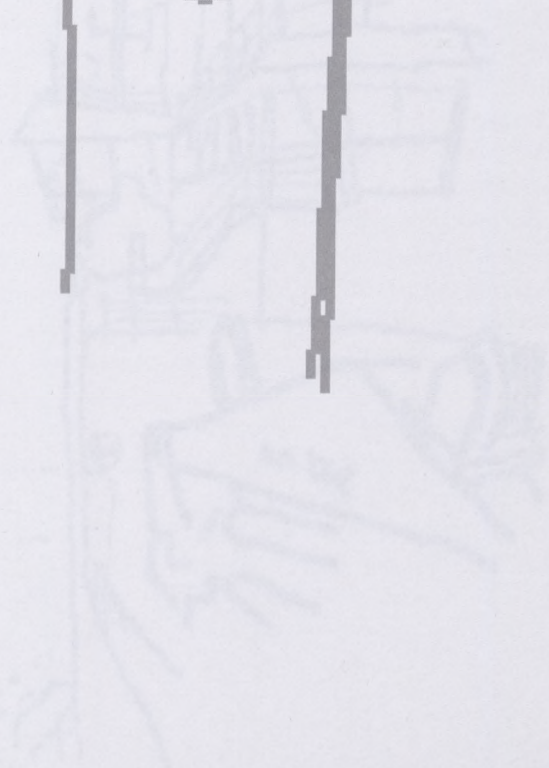
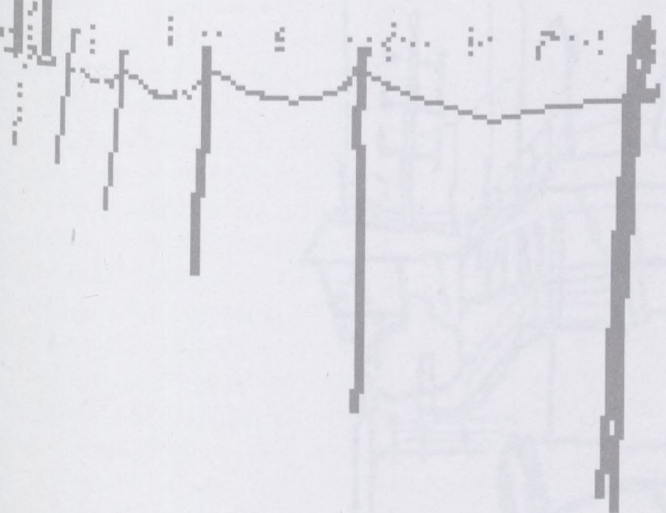
Starboard, Weddell Sea

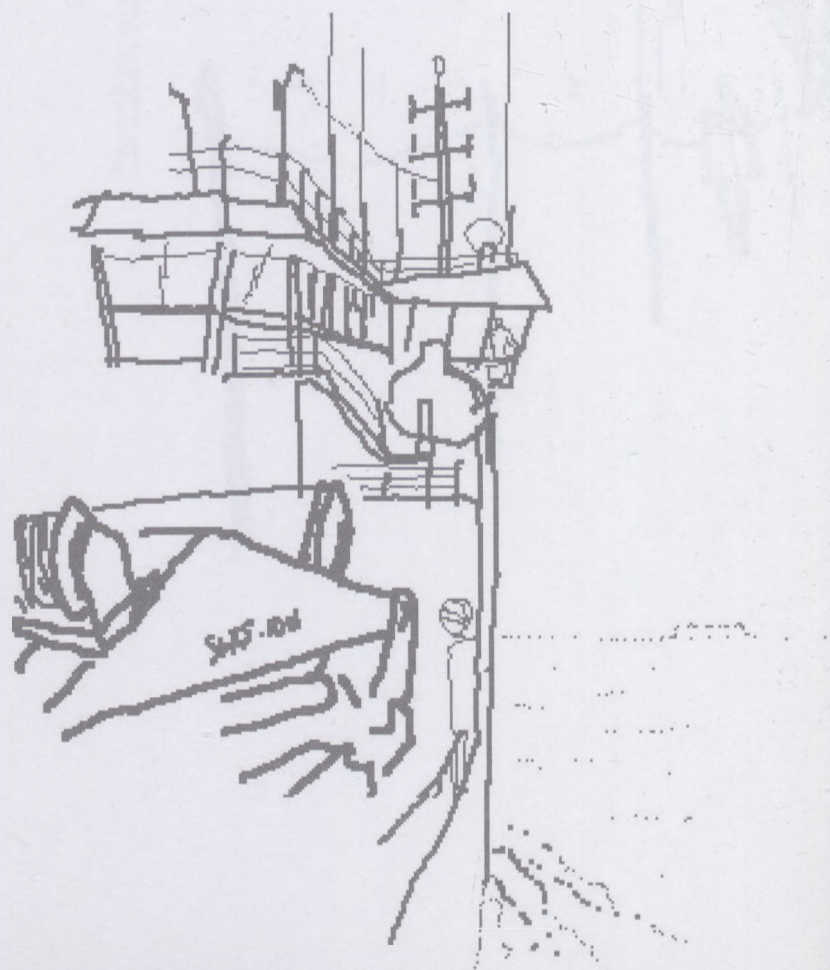
Latitude:  $s64^{\circ}45.568$

Longitude:

$w004^{\circ}58.940$







# What can and cannot be done II

Harald Welzer

Optimism is merely a lack of information. *Heiner Müller*

“In studying processes of social development, we constantly encounter anew a constellation in which the dynamics of unplanned social processes advance beyond a certain stage towards another . . . stage, while the people affected by this change remain at an earlier stage in the structure of their personalities and their social habits. Whether, and if so how quickly, the dynamics of the unplanned social process bring about a more or less radical restructuring of these habits or whether the social habits of individuals will successfully resist the push of social dynamics, either to exert a certain braking force upon it or to contain it entirely, depends wholly upon the relative strength of the impetus to social development and on its relation to the depth of entrenchment and hence resistance of the social habits of the people concerned.”<sup>1</sup>

It may be that the unplanned, uneven process of human development has reached a dynamic with rampant climate developments behind which habitual forms that have built up over decades and centuries can only lag. The largely absent capacity to assign appropriate dimensions to the problem of a global threat tends to suggest as much, as does the prevailing indolence in the face of the violent consequences actually and potentially associated with climate change. Likewise, interests that are, from an international perspective, conflicting, will be the force preventing a decisive, joint effort to slow the increase in warming rates, even in the medium term. Processes of catch-up industrialization in emerging nations, the insatiable thirst for energy of the first industrialized countries, and the global dissemination of a social model rooted in concepts of growth and the exploitation of resources make it unrealistic to expect that global warming of 2° Celsius by mid-century can be prevented. Moreover, this is a summary derived merely from a linear observation of the state of things. It does not at all consider autocatalytic processes that might lead to the acceleration of the emergence of social climate consequences and to the escalation of violence.

On the geophysical level, non-linear processes may emerge which would radically intensify the climate problem—if, for instance, the thawing of permafrost led to the liberation of massive quantities of methane, which in turn affects the climate, or if deforestation or increased acidity in seawater were to reach some critical point triggering as yet unforeseen domino effects. The same applies in the social sphere—for example, if conflicts over raw materials triggered wars, which in turn led to migration movements, which then exacerbated border conflicts possibly leading to incalculable violence within and among nations. The logic of social processes is not linear. This is also true of the consequences of climate change. Nothing in the history of violence indicates that periods of peace also signify a simultaneous permanent stability in social conditions. All of history attests to the fact that the massive use of force is always an available option. Human communities that survive, as Norbert Elias has shown, are always also communities that destroy, and the social consequences of climate change seem to confirm this insight.

It is now possible to describe exacerbations of global asymmetries and wars caused by climate change and capable of leading to quite new forms of ceaseless violence. Since the severest climatic consequences are incurred by the societies least able to cope with them, worldwide migration will dramatically increase over the course of the 21st century, occasioning radical solutions to problems in those societies in which the pressure of migration is experienced as a threat. It remains to be seen how sustainable the outward expansion of frontiers and associated use of force against migrants will be as illegal immigration exerts an even greater strain on corridor countries such as Libya, Israel, Algeria, and Morocco than it does today.

The obverse of securing of the external frontiers of Europe and North America is the continual intensification of internal security measures and the emergence of new security policies which undermine the state monopoly on the use of force and the parliamentary legitimization of that force. These come under headings such as extraterritorial detention camps, abductions, executions, torture, mercenary armies, and the overall privatization of force. All this exists in a state of vital interplay with the growth of terror in times of globalized modernity. As the success of irregular warfare in the 20th century shows, in the first place the build-up of a reciprocal use of force always works to the detriment of the highly-armed state parties to war, and in the second place it always triggers surrogate attacks on the security of the established societies.

Killing in the 21st century will be done less for ideological reasons than in the previous one. Nor will it be done because scholarly utopias have prepared blueprints for how the world might be arranged according to the eternal laws of nature and who, according to these laws, it might be expedient to exterminate. Lacking future-viable social models, the 21st century cares little for utopias and much for resources. Killing will be done because the perpetrators claim resources that the victims have (or wish to have) in their possession.

So are we really to believe that things will take a turn for the better? As climate consequences spread and become more noticeable, and as hardship, migration, and violence increase, there will be growing pressure to find solutions and mental space will diminish. The likelihood of irrational, counterproductive solution strategies will increase. This is particularly true of the problem of violence, a problem which will be exacerbated by climate change. All historical experience shows that there will be a high probability that people who come to bear the status of superfluous, and who seem to threaten the needs of more established people for affluence and security, will start dying in large numbers, whether from lack of water and adequate nourishment or as a result of border wars, civil wars, or international conflicts triggered by altered environmental conditions. This is no normative statement. It merely corresponds to what has been learned from the solutions that were applied to perceived problems in the 20th century.

This will not resemble a repeat run of the Holocaust. History does not repeat itself. But people perceive problems, and if they interpret them as a threat to their own existence, they tend to implement radical solutions *which would never have occurred to them before*. It must be said of Western cultures that they have failed to learn this lesson from the 20th century. They pride themselves very much on their humanity, reason, and justice, in spite of the fact that these three regulatory phenomena of human activity have historically succumbed to every assault against them, provided only that it was sufficiently fierce. These cultures will not long survive if they keep to their accustomed strategies of problem-solving—perhaps for two generations more, perhaps three. Their life span would then, measured against the duration of other cultures, have been risibly short.

At the end of his most melancholic book, *Tristes Tropiques*, the anthropologist Claude Lévi-Strauss writes, “The institutions, manners, and customs which I shall have spent my life in cataloguing and trying to understand are an ephemeral efflorescence of a creative process in relation to which they are meaningless, unless it be that they allow humanity to play its destined role.” Indeed, culture has meaning only within itself—as a technique for improving the survival chances of social groups. It remains to be seen whether this human capacity of continually and exponentially improving the survival chances of the species by cultural transmission, a capacity unique in evolutionary history, will be successful in the medium term. This *experimentum mundi* has been underway for just 40,000 years, and its Western variant for only 250 of those. Within this latter, vanishingly brief period of time, more of the foundations for survival have been destroyed than in the preceding 39,750 years. Destroyed foundations of survival are not only annihilated opportunities for the present, but also for the future.

Lévi-Strauss goes on to say that restless human activity consists in the gradual dissolution of a complex structure and the leveling of acclivities between different cultures, that is, organizational forms of human survival communities. “As for the creations of the human mind, they are meaningful only in relation to that mind and will fall into nothingness as soon as it ceases to exist. Taken as

a whole, therefore, civilization can be described as a prodigiously complicated mechanism: tempting as it would be to regard it as our universe's best hope of survival, its true function is to produce what physicists call entropy: inertia, that is to say. Every scrap of conversation, every line set up in type, establishes a communication between two interlocutors, leveling what had previously existed on two different planes and had had, for that reason, a greater degree of organization."<sup>2</sup>

The process of globalization can also be described in this way—as an accelerating process of social entropy which is dissolving cultures and will in the end, if things turn out badly, leave behind nothing but the undifferentiated force of the will to survive. Yet this would be the apotheosis of that power to whose abolition the Enlightenment, and with it Western culture, believed it had found the key. But the history of the free, democratic, and enlightened West nonetheless writes its own shadow history of unfreedom, repression, and Counter-Enlightenment, from modern slavery and the ruthless exploitation of colonialism to the destruction in the early industrial period of the livelihoods of people who had not the slightest involvement in its program. From this dialectic, as the future of climate consequences shows, the Enlightenment will be unable to extricate itself. It will founder upon it.

1 Norbert Elias, *Die Gesellschaft der Individuen* (Frankfurt am Main: Suhrkamp, 1987), p. 281.

2 Claude Lévi-Strauss, *Tristes Tropiques* (Paris: Plon, 1955). English translation by Bill Russel (London: Hutchinson & Co., 1961), p. 397.

# Disappearing Clouds

HeHe

## Industrial Emissions

Smoke emissions take many forms and carry many different meanings. On an abstract level a cigarette and an industrial chimney are similar, since both take the form of a cylinder with puffs of smoke coming out of one end. The factory emits a hot vapor through the chimney that condenses in the cold air as it is released into the atmosphere, whilst cigarette smoke travels the other way round, down the tube and into the lungs before going back into the atmosphere. Ideally both processes are filtered, to protect the outside and inside. But at one point in time these ordinary instruments of air pollution were extraordinary new phenomena. The representation and meaning of these forms are continuously shifting to reflect changing ideologies.

For the Impressionists, who brought a new vision of technology into landscape painting, smoke and steam were inextricably tied to modern industrial life and inseparable from the new pastimes and fashions of late-nineteenth-century bourgeois society. The presence of smoke emissions from a factory chimney was used to intimate that the factory was in production: that goods,

wealth, and prosperity are being generated. A shocked English critic of the time wrote of Pissarro's work in 1891: "... he has so little objection to ugly objects that in one of his pictures the tower of a distant cathedral is nearly obliterated by a long chimney and the smoke or steam that issues from it, whilst there are other long chimneys close to the cathedral, just as they might present themselves in a photograph. By this needless degree of fidelity M. Pissarro loses one of the great advantages of painting."<sup>1</sup>

Pissarro's supplanting of the bell tower with the industrial chimney can be seen as part of a wider cultural transformation that believed in industry as the new provider of all good things. When electric power stations first appeared, they were dubbed "cathedrals of power." This might have been because of their sheer size, but it was also due to their architectural design, which in part was borrowed from the canon of religious architecture. For example, in the work of Peter Behrens, the pioneer architect of factories, the design for the AEG pavilion at the 1908 Shipbuilding Exposition is a direct adaptation of the Baptistery opposite the Duomo in Florence.<sup>2</sup> Similarly the design of some of the earliest power plant control rooms entailed substantial references to gothic altarpieces.<sup>3</sup>

By the beginning of the 20th century, electricity itself assumed various spiritual connotations. Electrons were seen as cures and vitamins that galvanized the body and the home, that provided new, clean energy. Electricity could be used as agricultural fertilizer, medicine, and a personal health cure, such as the electric bath that was supposed to heal the fatigued.<sup>4</sup> By the 1920s rays and auras were everywhere. An advertisement for an electric light bulb of this era is reminiscent of Christian iconography, where light emanates down through the clouds from the Creator.<sup>5</sup> In *Thought Forms*,<sup>6</sup> Leadbeater and Besant's book dedicated to the transformative power of the mind, a cloud rises out of a cathedral and forms the shape of the church singers' "thoughts." The metaphor of the chimney emission is used to visualize collective spiritual energy.

In the 1960s images of smoke were used to attract political attention. One of the most enduring images of the Atelier Populaire poster campaign during the May 1968 uprisings in Paris is the graphic image of smoke coming from a factory in the form of a clenched fist: a declaration of resistance bearing the slogan "La Lutte Continue" (The Fight Continues). This industrial emission is far from the productive plumes of the impressionists or the spiritual overtones of the "cathedral of work." Here the factory is at the center of a conflict, in which workers want to free themselves—by literally letting off steam through political action.

Throughout the 1980s the image of the industrial smokestack was invariably used by the mass media as a symbol for pollution, particularly for the acid rain caused by sulfur and nitrogen emissions. This cultural meaning has continued into the present day, though it has shifted slightly along with current environmental priorities, as seen in the poster of Al Gore's *An Inconvenient Truth* that depicts factory emissions as a hurricane. Here the industrial cloud is both a source and sign of climate change.



# Disappearing Clouds

**Atelier Populaire**  
**La Lutte Continue, May 1968**

**TRAVAILLEURS**



**LA LUTTE**

**CONTINUE**

**CONSTITUEZ-VOUS EN**

**COMITE**

**DE BASE**

Today, engineers have developed technologies that enable vapor emission to form somewhat later in time, after the gas has left the chimney, thus erasing the visible link between the chimney and its emissions. In the near future power plants will bury industrial emissions underground in geological formations. Imagine a future in which production continues to operate as usual but the emissions are no longer visible. With industrial emissions hidden and disguised, the processes of production—or the consumption of natural resources—will disappear from public consciousness altogether.

### **Rebellious & Established Smokers**

Whilst early industrial emissions were not considered worthy of being painted, when tobacco arrived in Europe the spectacle of a people emitting tobacco smoke from their mouths was so new that it had to be seen to be believed, and for a century it was pictured in many books before it was widely available for consumption. The phenomena aroused much curiosity, and since people did not yet have a verb for the activity, it was described as “drinking smoke.” However, its introduction to Europe provoked an ongoing public debate—between an equal number of advocates and detractors—and attempts to prohibit smoking in public spaces has a history as long as tobacco usage itself. As a consequence of its ambiguous status, smoking has been repeatedly used as a symbolic protest against political or social oppression: In revolutionary Prussia every smoker seen on the street was suspected of being a “dangerous democrat,”<sup>7</sup> whilst in nineteenth-century France smoking acquired new symbolic significance for the female emancipation movement, when rebels like George Sand and Lola Montez shocked the social mores of their time by smoking deliberately in public. A woman smoking in public has long been associated with promiscuity; perhaps the most seductive example is Marlene Dietrich, who was photographed in many smoke-wreathed poses.

In Germany the Nazi regime campaigned vehemently against smoking between 1933–45: Posters bore slogans such as “Die Deutsche Frau Raucht Nicht” (The German woman does not smoke), and cigarettes were rationed and banned from all public places. The policy was part of a wider program to attain a more “organic,” “natural,” and “biological” way of life to protect the purity and health of the “superior” German genotype.<sup>8</sup> For the anti-Nazi youth movements of the time—the working class Edelweiss Pirates and the bourgeois Hamburg Swing Kids—the cigarette was used as a sign of refusal of the social order and the culture of National Socialism. Surveillance reports produced by the Hitler Youth referred to smoking as a firm indicator of their degeneracy.<sup>9</sup>

Cigar smoking has always had a very different meaning. Winston Churchill’s trademark cigar represented him as a man of power and authority, in marked contrast to Harold Wilson’s pipe that cast him as a dependable man of the people. Duchamp used the cigar’s phallic connotations in his poster design for the Galerie Claude Givaudan in 1967, in which he shows a man’s hand holding a cigar and the puffs of smoke appear to draw a woman with her legs open. Between 1998–1999 public attention was drawn to two separate international incidents involving cigars and the leaders of the United States and Germany respectively. In the Clinton–Lewinsky scandal Clinton notoriously used a cigar as a substitute phallus, whilst in Germany Chancellor Gerhard Schröder was

most unfortunately captured on TV smoking a cigar at a moment when the ruling Social Democrat party was facing defeat and forced to implement non-socialist policies, such as welfare cuts and market liberalization. As a consequence of the media debate that followed, he gave up the cigar, at least publicly, in an attempt to make his public image fit the harsh economic and political climate. Parading an icon of wealth was no longer tenable, at least not for a socialist leader implementing free market reform. It seems that whilst the cigarette is associated with transgression and rebellion, the cigar is invariably associated with masculinity and power—both sexual and financial.

The recent ban on smoking in public spaces that is sweeping the world is likely to have a profound effect on the culture surrounding smoking. Whilst the cigar smoking community in America is actively requesting exemptions for private cigar smoking clubs—where cultured people might enjoy the delicate tastes of tobacco—the rebellious status of cigarette smoking is simultaneously being heightened. The great paradox of the smoking ban is that the seductive quality of cigarette smoking has strong roots in the guilty pleasure of performing an illicit act.

Smoking is disappearing from public view. Visiting the website of one of the largest cigarette companies, one notices the absence of images showing any form of tobacco or its use. The new smoke-free products, such as patches, gums, snooze, and moist tobacco pouches, are closer to medical products than social accessories, and their consumption is invisible to the public. The new electronic cigars and cigarettes, complete with red LEDs and water vapor emissions, are imitations that faithfully replicate the form without embodying any of the socio-political meaning of their originals.

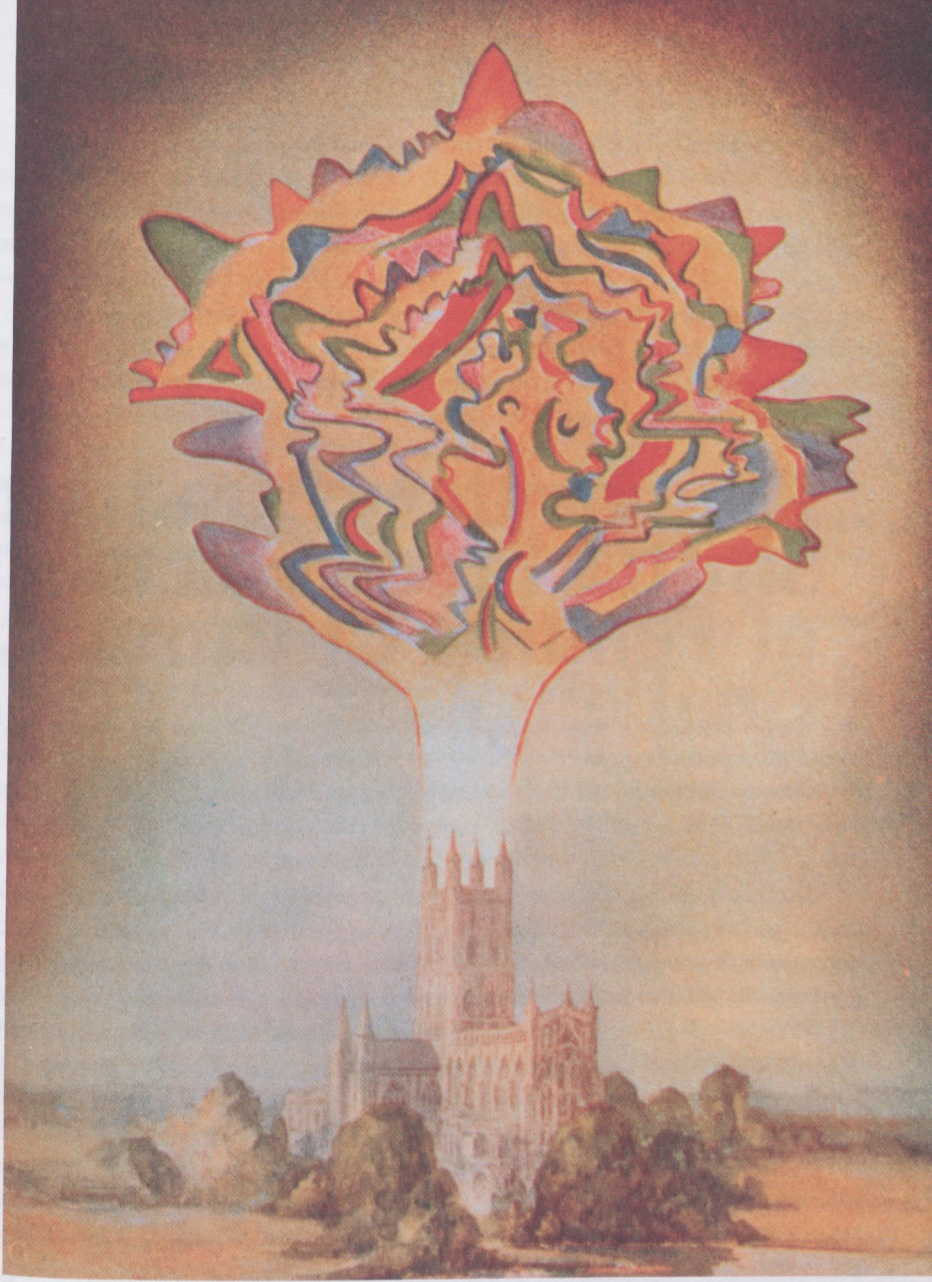
### **Ozone Clouds, Data Climates**

In November 1952 a great, black smog enveloped the city of London and was trapped in the Thames basin for four days. The freezing cold temperatures meant that people burnt more coal to keep warm and used a cheap sulfur coke, thus adding to the environmental disaster. Medical services at the time estimated that 4,000 people died during that week, and a further 8,000 died in the month that followed. Eyewitness accounts of the Great Smog tell how some Londoners could not see further than one meter, even in their own homes. This tragic event triggered the first governmental regulations to protect air quality.

Over fifty years later during the summer of 2003 a fifteen-day heat wave impacted western Europe and France in particular, where it is estimated that some 20,000 people died due to record temperatures and unusually persistent high ozone concentrations. This dangerous level of ozone found in the lower atmosphere was caused by a photochemical reaction of sunlight, heat and the nitrogen oxides emitted—for the most part—by road traffic. In contrast to the dark events in London, photochemical smog can be invisible, odorless, and intangible. Even from inside an ozone cloud the only way to perceive this modern pollutant is through the scientific maps and models computed from “surface observations” obtained from air quality monitoring stations.

In Western Europe contemporary understanding of air pollution is measured, modeled, mapped, and mediated. It is no longer felt or experienced, although it remains potentially lethal. It is now less common to see pollution directly by looking across at the horizon through a dirty sky, than seeing it from a distance, from above, from the vantage point of the satellite that presides over the world. By presenting only knowledge that is measurable, the model is disconnected from the local context and the specific social-economic conditions on the ground that created the pollution in the first place. In the post-industrial information world the subject under observation is immobile, analyzed through statistics, whilst the viewer zooms and spins, moving through historical records into the distance and further away from the real subject of observation.

- 1 P.G. Hammerton, "The Present State of the Fine Arts in France: Impressionism" in *Impressionists in England: The Critical Reception*, ed. Kate Flint (London: Routledge and Kegan Paul), p. 99. Originally published in *Portfolio*, February 1891, n.s., 13, pp. 67-74.
- 2 Herman Sturm, *Industriearchitektur als Kathedrale der Arbeit; Geschichte und Gegenwart eines Mythos* (Essen: Klartext, 2007), p. 113.
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**'Plate G. Music of Gounod'**

**Annie Besant and Charles W. Leadbeater's Thought-Form, 1901**

“and the perfected shape floats high in the air, clearly defined and roughly spherical, though rather an oblate spheroid. This spheroid is hollow, as are all such forms, for it is slowly increasing in size—gradually radiating outward from its centre, but growing proportionately less vivid and more ethereal in appearance as it does so, until at last it loses coherence and fades away much as a wreath of smoke might do.”

# Fragmentary Paradigm Shift: a Predicament of Pending Cultural Challenges

Victor Nemchinov

Since the beginning of this new century we have all tacitly been hoping for the manifestation of a pending paradigm shift—mainly in modern art but also in ourselves and in our common interactions—in an attempt to find new answers to pressing global challenges. Our technological propensity for global communicative and trans-medium mastery now is at a level never attained before. Yet if we glance back a hundred years ago from today, we would be amazed at how vibrant, powerful, and extremely rapid the paradigm shift towards cultural contacts between different countries has been. Just take the example of the daring Russian collectors Sergei Schukin and Ivan Morozov, who at the last turn of the century developed an interest in and supported early on unconventional artists such as Matisse, Picasso, Bonnard, and Gauguin. These private individuals were willing to democratically share their enthusiasm with the others, and on Sundays Schukin's Moscow house was open for visits. His tiny "transmediale" instantly changed the perspectives and mindsets of Natalia Gontcharova, Larionov, Tatlin, and Lentulov. Alexandra Exter engaged herself in a similar kind of culture sharing community in Kiev, and from this grass-root infatuation with ultra modern art new creative trends took root. Groups like "The Knave of Diamonds" were formed, and the Russian avant-garde of the early 20th century was born.

This example allows us to cast a general look at the human predicament. Paradigms represent common, conventional ways in which we relate to ourselves and nature. They reflect the existing established order of things and attitudes. Our civilizations and cultures are constantly relaying them in different patterns of intentions and dispositions. Some of them are flexible; all others rapidly harden up into fixed stereotypes.

We usually do not notice them, unless they begin to cause apparent public stress and, hence, may come under the challenge of entrenched, routine circumstances. We need to change them. That is why it is important to talk about shifting paradigms. This is a truly relevant subject for concern and discussion. Moreover, maybe it is the only viable way of inducing requisite change. But can we get through paradigmatic shifts to arrive at a point we desire?

That is why I would like to emphasize an unfinished paradigm shift. From experience and many real-life examples I have learned to recognize the danger of half-considered and ill-thought measures, of neglect, inaction, or belated action. The point is: new representations “solidify” into stereotypes much too quickly and thus tend to lose their innovative positive thrust.

Let us briefly discuss the (1) environment, (2) networks, and (3) evolving identities—the three main domains where we all definitely need to co-operate.

(1) DEEP NORTH is an area where global warming is presently and perhaps most apparently detrimental and alarming. Environmentalists in both hemispheres are noting its lasting and irretrievable effect on Arctic ecosystems. Tiny nations of numerically small peoples and dwellers of urban villages in the Russian North are losing their traditional food chains in huge permafrost and littoral areas. Their SOS signals do not reach into what they call “the big land.” These people also tend to be physically cut off from the mainland, and no viable substitute is in view. This is an impasse, because they show negative life expectancy when expatriated from places of traditional habitat to more moderate climate areas. If we look at environmental policy on a governmental level, the main paradigm shift would be to switch efforts from an environment protection to environmental rehabilitation. This major paradigm shift requires the development of both international networking and intergovernmental action plans.

One of the comforts of consumerism is that we still do not need to reflect on the price others have to pay for the prevailing stereotypes of consumer societies. Do we really need to indulge? In the meantime how can we start shifting the prevailing paradigm? This question is an invitation to a network brainstorming, which you are cordially invited to join in the year 2009. Our proceedings and suggestions will be published by the journal *Severnoye Prostrany* (Northern Expanses), which is distributed in all the localities of the Extreme North and Siberia.

To bring us back to the artistic domain of transmediale.09, I would like to share with you the discovery I made in my travels to Tyumen in Siberia. In the local fine art museum I found a fantastic exhibition of works by the Samojed primitive artist Konstantin Pankov (1910-1941). As it turns out, a network of students at the Institute of the North, including hundreds of youngsters of 24 numerically small peoples of the Extreme North, was formed in 1924. Their education expanded the horizon of their own identity, and many of them started to express their personal visions in paintings and sculpture. Eighty-six of them, including Pankov, presented their work at several art exhibitions.<sup>1</sup> This is a hitherto unknown “virgin land” of viable indigenous art.



(2) Coming to the issue of networks, I would like to share my experience with the two network communities. One is the online interactive project of the radio station Echo Moscow<sup>2</sup>, which provides round-the-clock informative and analytical broadcasting, also involving telephone and SMS feedback from the audience. After 18 years of non-stop Russian and international event coverage Echo Moscow gained a reputation for independence and integrity among a broad Russian-speaking audience and intellectuals. Brief newsreels are broadcast every half-hour and last from four to eight minutes. Regular program hosts broadcast news comments, news-based discussions, and debates on the pressing issues with invited guest speakers, and they share their views and analyses on political events. These programs last from 20 to 45 minutes and are transmitted live on the air. The daily routine interactive program "Daily u-turn," where the listener may suggest a new turn or another theme for discussion and may express an opinion, normally lasts several hours with breaks for the news. This is a very successful example of an interactive program.

I would like to just briefly touch upon current bottlenecks that are mostly related to network feedback. Due to the editorial policy of no censorship, there is a price to pay for unmediated flow-back. A 20-minute program can get as many as 150 phone calls and still many more online digital messages. These would usually involve five to ten percent crap calls that usually start with a tag phrase "I reckon that." A very sensitive and bold weekly analytical program by Julia Latynina is attacked by a regular group of phone call spammers, who clog the phone lines of this live broadcast. The radio station can screen this inevitable "noise." The still unresolved issue is that the station has no resources or capacity to do what I would call "sieving for specks of gold." But that would be a logical think-tank task for the companion network community that still has to evolve.

The other network project is the World Public Forum's "Dialogue of Civilizations" project, with which I have been associated as volunteer since its inception in 2003. There were two appealing cornerstones laid at its foundation. First, none of the participants should act on behalf of an office, an institution, or a country. Irrespective of position, each participant is welcomed merely as an individual. Second, a free exchange of opinions is encouraged, provided it can lead to dialogue. This non-governmental and professionally unstructured international venue of annual deliberations is ideally suited to a network community. In 2006 this project was registered as an international NGO in Vienna, and this year it has been recognized by UNESCO. Its annual meetings in October on the island of Rhodes now attract over 700 participants from 60 countries. After six very successful general meetings lessons of experience have been learned. What such a huge think tank could have accomplished, a loose network community has not been able to achieve. It does not have enough feedback energy to either select or push through the specific loci of dialogue on a regular basis. WPF network nodes could bounce back already generated impulses to their respective domains and countries, but that requires the effective spread of moderation and an extensive virtual exchange. For a network community such non-profit, volunteer activity remains an untapped option. However, the more viable option is to set up small transnational focus groups that could generate virtual exchange of opinions and produce interesting cross-cultural intellectual products. It remains our general challenge to find ways for these dialogues to evolve and to explore whether the digital domain can indeed provide an ad hoc or, ideally, a permanent

platform for a self-evolving intellectual cogitation. My own experience as a web forum moderator, frankly, has so far not been successful.

(3) This brings me to the last point of discussion related to identity issues: individual identity as an evolving (shifting) paradigm. Individual identity is at the very roots of western civilization. Strange as it may seem, it can be traced back to the deck of the battle ship. This tiny space, be it that of a Viking boat or an ancient Greek trireme (excluding the galleys), had become a generator of what we call modern identity due to three principal factors. Each man had to learn the discipline and obey captain's orders. Each had to learn to perform several different professional roles (sailor, farmer, and soldier) at the same time, and each could learn about new lands and unknown locations. The factors that radically shifted the paradigm of tribal loyalties are still important today. We can evolve if the locus of true authority (physical, moral, or aesthetic) is placed beyond our own egoistical self; if we are able to transmute and expand previously learned roles and skills. And last but not least, we will evolve if we shape our identity as a reflection of otherness, if we learn to tolerate and appreciate a different self from that which may seem to be alien to us.

We are prone to forgoing a paradigm shift, if we ossify all the external information into fixed stereotypes to protect our fragile inner self, or if we only extract what can please and amuse us, just as consumerists do. But if we have the energy and will to reach beyond these things and to evolve, which is what transmediale is all about, we will be able to generate new information and new value from what we see around us.

You could say that this is where the propensity for artistic creativity and for paradigmatic shifts comes from. Eighty-five years ago a great philosopher, Leo Karsavin—ostracized from Russia alongside with 250 other intellectuals—came to Berlin and published his new theory of the self. He argued that apart from our current identity of the “here and now” we also have the identity of a small child inside us. The one that once had enabled us to make our first triumphant discovery, the awareness of the big external world, full of others—the world of opportunities. If we still cater to that child within, we will be able to shift obsolete paradigms. Where to?

This is what our third identity would prompt us to explore. Our inherent third identity “wakes up” when we interact or lead a meaningful exchange with the world of human culture. This may be during a concert, a performance, or at an art show when we read the message of an artist, or encounter such ideas in an interesting book. This identity occasionally may blossom at an event like a big festival, where we are touched by what other people want to show and share—which is why I am thrilled to be a part of this dialogue.

1 See reproductions of their pictures and sculptures in: “Northern Style in Arts 1920 – 1930s” in *Our Heritage* (Moscow, 2002), p. 121.

2 <http://www.echo.msk.ru>

# Escalation

**John Palmesino, Ann-Sofi Rönnskog**  
**Territorial Agency**

**0001** Stasis is the name that the Greeks gave to civil war. It referred etymologically to a position, to a placement on one side opposed to another. It was a placing that induced a division of the body of the city and led positions to become parties, factions to animate sedition, giving way to an escalation towards civil war. Stasis was the division that unsettled and tore apart the unity of the Greek city, of the polis. Stasis was a deep cut away from reassuring certitudes and established models of cohabitation and fraternity: it was the moment of the unknown, of the external. All of Greek political thought, indeed the very invention of the political, was geared towards averting civil war, positioning, stasis. And as such, stasis was always rejected in the Greek thinking of the political. Stasis was thought of as being the external to the consensual city, and the explosion of civil war was seen as an irruption into the unity of the polis. Stasis was war within the city, war within the family, war of 'all against all'.

**0002** Civil war, or stasis, has been the ideological fixed point in all Western political thought. Its avoidance marks the asymptote, the liminal condition that defines the possibilities of civilised cohabitation. The distinction between our current interpretation of the word stasis and the Greeks' is slight and rests only apparently on discrete notions of movement and dynamics. Civil war is obviously seen today as a moment of unrest, turmoil, unsettlement. The ultimate moment where movements of all sorts and all kinds clash and intersect and their courses collide. On the other hand, we see a static moment as being one where change is limited, and continuity and stability prevail. A condition of equilibrium and an interval between other moments of change. Stasis in this sense is opposed to labour, to the working out of forces, a suspension, a pause, a stillness. The knot, the etymological spectrum of stasis, lies at the crossroads of two images: from one side the divisive, active, animated slips and falls of confrontations and struggles, from the other an idea of emptiness, of slowness, of duration.

**0003** It is at this juncture that the current changes in the North, with displacements from a perceived equilibrium, raises urgent questions on contemporaneity. It is at the juncture between the notions of placement and opposition that the notion of stasis operates as a mapping device for today's spatial practices and cultural transformations. The multiple discourses, the complex density and different levels of the transformations that are marking the Northern latitudes, pose a series of questions on the relation between inhabitation and culture that move way beyond the geographical settings in the Arctic and Sub-Arctic regions. In the contemporary world of cultural transdisciplinarity, attempts to move beyond the confines of stable pools of knowledge and cross the borders of specialised scholarly depth face difficulties similar to the duality between stillness and total dynamism that the word stasis suggests. It is perhaps in the tension between the encircled and focused modes of specialised knowledge production and the global short-circuits of cultural production that defy the genealogy of their spaces that the potential of the transformations in the North can find its principal equivalent.

**0004** In thinking of the mainstay of today's cultural production, we encounter a continuous movement within, against, and about limits, fractures and divisions: globalisation is showing us a growing number of intensifying, extending, by-passing, re-organising borders and boundaries both in the multiple knowledges it produces and in the physical territories in reshapes. We have grown accustomed to the understanding of borderlines, limits, frontiers as modes of construction of the contemporary space, as spaces inhabited and wrought by the many dynamics of globalisation. At the same time, we have become aware of the impossibility of containing capital or labour within clearly marked enclosures, we have started to glimpse at the interconnections between the global mobilisation of capital risks and the material condition of the unprecedented physical transformation of the surface of the contemporary city, with the explosion of the construction sector driven by global real-estate investments. Architecture not only as the traces left in space by the transformation dynamics of the 21st Century world, but as the complex condition that combines different sets of material and cultural dynamics, joins multiple agencies, some of which are not human.

The mapping of the transformation of the complex amalgamation of contemporary spatialities intersects the tension that rises between movements to overcome limits and their counteracting placing of knowledge within well-delimited boundaries and sectors of specialisation and expertise.

**0006** Climate change is not the only transformation we are facing today in the North. The North is slowly revealing a system of change in the physical, institutional, social, spatial, economic, and cultural structures we inhabit and constantly reshape. Today, the transformations in the relation between nature and inhabitation are being stressed in the northern latitudes in an unprecedented scale. Today, the North is an extreme laboratory for the exploration of contemporary polity-space relations.

**0007** The mapping of the many transformation processes that are reshaping the material territories and the contemporary spatialities in the Arctic and Sub-Arctic regions of Europe, Asia, and North America can be used to mirror a series of contemporary knowledge production modalities and trajectories.

The Cold War introduced a view of the world from the Arctic. The representations of the bipolar conflicts centred on maps with a polar projection. Probably the most famous of these maps is the seal of the United Nations, designed by Donal McLaughlin: an azimuthal projection centred on the North Pole. This projection is a very important one, since it allows a representation of the proximity of the two Cold War super powers and renders the trajectories of ballistic thermonuclear threats in an implicit way. The possibility of extending the range of nuclear attacks beyond the radius reachable by bomber planes through the deployment of missiles brought the US policy of containment of the USSR to a different level. Overall, the conflict was conceptualised as the ultimate specialisation and extension of the territorial aspects of sovereignty. The Iron Curtain, the Berlin Wall, the Demilitarised Zone in Korea were the materialisation of a process of dominance, of modern notion of sovereignty as absolute and supreme power within a territory.

Sovereignty was literally defined as the space within one's reach.

**0008** The implicit thermonuclear lines of fire in the azimuthal projection were rendered explicit in a whole gamut of cultural practices, government policies, military alliances, and mutual economical blockages, divisions and containment. The system operated across the world as a conjunction of deterrence and containment. The logic of the conflict was somehow counter-intuitive and helped the establishment of absolute and territorial sovereignty as the only model and organisation of the relation between politics and space.

The counter-intuitive notion of thermonuclear deterrence is based on a structure that adopts the same principles of avoidance of civil war and sets the line of nuclear warfare as the limit to avoid. At the same time, it is necessary for it to function to operate within a system of possible retaliation in case of the enemy striking first. This was developed principally by the United States strategy of escalation: it is always possible to raise the conflict to a higher level. The escalatory model was devised around thinkers and advisers grouped within the RAND Corporation (Research AND Development), and primarily by the work of Herman Kahn (*Thinking About the Unthinkable*). This logic of using escalation as a modality of governing the conflict, and primarily to avoid it, entails the



**The International Bathymetric Chart of the Arctic Ocean (IBCAO)**

notion that thermonuclear war was a war like all other wars, it was a war that one could win. When the escalatory model is in place, all military conflicts become a mode of extreme negotiation, a discourse between the parties that operates at levels of atrocity previously thought as end-points.

**0009** The unthinkable was thus reduced to the already known: a process of mirroring thermonuclear war to the developments of the modern sovereign state, which had their unthinkable, external element in civil war, in stasis. In this sense we encounter throughout the development of the post WWII era an acceleration of the development of the coupled notions of supreme and absolute power and territoriality. It is a movement that accelerates the motions of the modern state and stabilises the shock-waves of the decolonisation process and the dissolution of Europe's supremacy in the geo-strategic assets of the Twentieth Century.

The conjunction of a territorial supremacy and a supreme and monopolistic power of the state within fixed borderlines and frontiers was counterbalanced by the setting in place of a number of institutional devices that eventually remoulded and reshaped the unity and hierarchical aspects of the modern state. The most prominent of these institutional devices was the development of the United Nations Organisation on one side and the European integration project, which culminated with the setting in place of the European Union.

**0010** The United Nations saw their first expression in the form of the Allied Forces waging war against the Axis in World War II. On December 14, 1941, in the cold waters off the coast of Nova Scotia in the North Atlantic, aboard warships anchored securely at Ship Harbour, the President of the United States Franklin Delano Roosevelt and the Prime Minister of His Majesty's Government Winston Churchill drafted the short document of the Atlantic Charter, which was to lay the foundation for the development of the United Nations, the GATT and the decolonisation process in Britain's and France's overseas territories.

One of the main points in the Atlantic Charter, which was issued before the attacks on Pearl Harbour, is the wish to achieve a peace which would afford all nations the means of dwelling in safety within their own boundaries and would enable all men to traverse the high seas and oceans without hindrance. (Atlantic Charter, Points 6. and 7., December 14, 1941). Thus, the laying out of the project of the United Nations sees at its very injunction the coupling of territorial fixed borders and the openness of the seas. It sees the continuation and peak of a momentous body of thought and knowledge practices that for centuries associated placement and stability as a fixed notion.

**0011** The evolution of the United Nations and of the European Union began as an attempt to render states and sovereigns accountable at a higher level, in order to eliminate the horror of German tyranny during World War II. On one side, the United Nations were thought out as an institutional device to establish a continuous exchange between possible enemies, between sovereign states divided and placed within a complex system of containment and deterrents, on the other, they were engendered by the rapid growth of a world system of exchange, flows, and networks.

The second development, the integration process in Europe, began as a series of accords on the possible exploitation of natural resources and steel in Western Europe. The deposits of coal and the steel industries of the continent were governed by a system placed outside the territorial confinement of national sovereignty.

**0012** The co-development of International Humanitarian Law (IHL) and the integration of Europe, the institutional recognition of a series of Human Rights Conventions, the United Nations Charter, and subsequent international treaties have removed the state's monopoly on sovereign power, opening up a multidimensional field of pressures, actions, and movements by other contractual actors: other states exerting unilateral or concerted power through sanctions and humanitarian aid and intervention, local organisations fostering the implementation of measures to assure human rights, non-governmental organisations operating at many political, humanitarian, and economical levels.

It is a development that reshapes the territory of sovereignty, it binds it to an intrinsic difficulty of flows and placement, of interconnections and multiplication of agencies and actors with a localisation of individual transformations.

**0013** Almost following the exponential global temperature increase charts, the news referring to conflictual visions about possible uses of the natural resources in the North, increased risks of ecological mutations, claims of sovereignty, new mineral oil deposits and fields being discovered, conversions of industrial infrastructures, new plans for connecting existing transportation networks are flooding in daily. In a pattern similar to that which characterised the conflict architecture of the Cold War, escalation seems to be the dominant theme of today's transformation processes in the North.

Escalation is the process of concomitant intensification and extension of a conflict. Intensification entails changes in the tactical moves that react back on the conflict process. The growing intensity modifies the pattern of relations between the parties involved in the conflict, and by doing so generates the extension of the conflict to other parties, with the overall result of a growth in scale and intensity of the conflict.

In its main outlines, the process of intensification seems to follow a path towards unknown consequences, with clashes at and between all levels. It is a process very similar to that of an explosion in thermodynamic terms: a sudden increase in volume and temperature, with release of high energies. As such, it implies an underlying instability, which is amplified by a triggering factor.

**0014** While escalatory movements and conflicts are usually perceived as a movement away from control and governance, it is their intrinsic link between physical and knowledge process that can unveil the modalities by which inhabitation is rethought and remodelled today. Escalation in other words is a differentiation of the notion of civil war and its difficult two faces of stasis and explosive events.

The winds that sweep from the North into the fractures of the edifice of the contemporary relation between politics and spaces needs to be charted, mapped, and analysed, in order to have it freshen up the modalities by which we are today thinking of placed and expert knowledge and the interconnections between different cultural pools and contained bodies of thought.

At the same moment, the urgency of a detailed and articulated exploration of the transformation processes in the North needs to avoid falling into the trap posed by the etymological origins of stasis and placement, it needs to articulate an integrated approach to change and transformations. It needs to avoid the exclusivity of expert knowledge and at the same time to divert from a notion of openness and uninterrupted fluxes and flows. It is an analysis that awaits a re-conceptualisation of the notion of the state of nature, the individual and exclusive human agency.

**0015** One of the principal traits that the Arctic and Sub-Arctic transformations is making visible is the possibility of control and administration, of the continuous monitoring and supervision of a territory without the necessity of direct inhabitation and proximity. An analysis of the territorial transformations that would include a maelstrom of technically produced data and imagery and its underlying implications on procedures of control, insurance, and governance in the Arctic



would help us understand at a different level the links between the apparatus and discourses of security and risk and the uncontrollable processes and autocatalytic procedures that seem to lie at the basis of the reshaping of the material territories of the Northern latitudes. The mapping of the many transformation processes that are reshaping the material territories and the contemporary spatialities in the Arctic and Sub-Arctic regions of Europe, Asia, and North America can be used to mirror a series of contemporary knowledge production modalities and trajectories.

**0016** Technological developments and innovations, coupled with the accessibility of larger parts of the Barents Sea and the Beaufort Sea because of the melting pack ice, are opening the North to many possibilities in the decades to come. These possibilities are based on aspirations to acquire new natural resources in the sediments and rocks under the waters of the Arctic Sea. The high energy prices throughout the world have made the exploitation of petroleum resources in areas once inaccessible a viable option. The oil deposits of the Barents Sea in particular have generated a rapid increase in the stakes at hand in the North. It is believed that the seabed holds one of the larger, if not the largest oil deposit of the world, and the disputes on its exclusive economic use are the order of the day. These disputes refer primarily to the controversial geometry of the Norwegian and Russian Exclusive Economic Zones. Under the UNCLOS III (Third United Nations Convention on the Law of the Sea) Exclusive Economic Zones are sea-waters over which a nation-state has special rights for the exploitation of maritime resources. The zone is defined as the area that stretches 200 nautical miles from the baseline, or low water mark. It designates the abstract extension of the continental shelf of a particular coastal state, a sort of prolongation of a state's land under the waters. Coastal states have the sole right to harvest mineral and non-living materials from the soils of their continental shelves. If the actual continental shelf extends beyond the Exclusive Economic Zone, a state has the right to claim exclusive use of the shelf.

**0017** The claims on sovereignty that are causing much of the contemporary trouble in the North are primarily claims for the usage of natural resources, not for inhabitation. The distinction is important, as it makes explicit a set of transformations that have modified the way we conceptualise territory and knowledge: the connection between a fixed partition of expertise and its territoriality on one side and the material delimitation, marking lines, frontiers is a relation which in itself is part of the contemporary spatial transformation processes. In order to accede to a more detailed and rich analysis of the conditions that are forming our contemporary spaces of operation, we can think of inhabitation as a certain culture or a set of procedures, i.e. the proficiencies that characterise contemporary inclusion processes, as systems that at the same time operate within defined demarcations and allow interconnections and transgressions.

**0018** Here we can get a first glimpse beyond a knowledge that is completely at our disposal and where differences are clearly decidable. Where the idea of difference is carried out through a universal set of markers. Where differences are equalised and the friction between them accommodated within a general and momentous body of thought. The notion of territorial sovereignty stems from the discussions and clashes between Hugo Grotius and his British counterparts at the dawn of the Seventeenth Century. The invention of the notion of territorial waters, i.e. of waters

that are to be considered the same as land, is a complex and sophisticated line of thought that joins the invention of Europe and the nation state and its imperial and colonial sweepings. The current governance of the claims on the exclusive, supreme usage of natural resources by the Law of the Seas is the final point of a long trajectory of thought on sovereignty and the possibility of containing (or preserving) the state of Nature. The junctions between the development of the contemporary erosion of the integrity of sovereignty and the Enlightenment construction of a notion of sovereignty as a necessity within natural law developed by Thomas Hobbes in the *Leviathan*, John Locke in the *Two Treatises of Government*. In thinking of sovereignty within a context of conflict escalation throughout Europe, liberal thought devised a complex system of concepts around NATURE. A system that eventually characterised the development in the modern world and that on many levels still informs our notion of nature as being an external and out-of-reach scaffold. An idea of nature that joins stillness and impetuous dynamics: a stasis and an escalation.

**0019** The mythical Northwest Passage, linking the North Atlantic waters to the Pacific, sought for centuries by explorers as a means of circumnavigating the Americas from the northern side, and navigated for the first time in 1903–1906 by the Norwegian hero Roald Amundsen onboard the *Gjøa*, is today becoming a prospect for commercial routes between Europe and Asia. The proceeding melting of the ice pack because of an increase in global temperature is opening up the passages between the Canadian Arctic isles, and the reduced thickness of the ice could lead to commercial re-routing. The impenetrable passages through the low and icy waters would require major investments in port infrastructures and escort. During an “Arctic Marine Transport Workshop” held in 2004 at the Scott Polar Research Institute at Cambridge University, organised by Alaska’s Institute of the North, the U.S. Arctic Research Commission and the International Arctic Science Committee, a number of key factors for the evaluation of the feasibility of a merchant passage between the Pacific and the Atlantic Oceans were discussed. These comprise a number of governance techniques and procedures that range from gathering information on accidents for insurance calculations to jotting out complex remote surveillance for the management of flows and sea routes. It is a document that elaborated the notion of uncertainty about the future condition of the Northwest Passage and the Northern Sea Routes within the systematised apparatus of contemporary risk management and reduction, within the apparatus of sectorial and expert systems and calculations of risk.

**0020** The current debates on the consequences of climate change and the escalatory development of technology, which would allow inhabitation of the Arctic and Sub-Arctic in a novel way, tend to focus on diversion from a pretended equilibrium. In considering a project of mapping and observation of transformation processes, we can refer to the equations of game theory and multiple gains negotiation conditions. One of the most illustrious of these theories, which stemmed from the complex economic and strategic thoughts of the Cold War, is the so-called Nash Equilibrium: a condition where the most efficient move a player can take is that which optimises the results of the entire group. Equilibrium is reached when all players achieve a maximum advantage from the knowledge of all the other’s strategies. In a Nash Equilibrium, no

one has advantages in unilaterally changing their choices. In other words, a Nash equilibrium is reached when an increase in knowledge of the situation (the other player's strategies) does not procure an increase in one's advantages. A move away from the equilibrium is a move towards uncertainty, a move towards the unknown.

What are the conditions that link an increase in descriptions, narratives and procedures, an increase in knowledge of the situation, and the escalatory movements of innovation in technology and in procedures? Is it possible to rethink the North apart from its untamed state of nature and progress?

**0021** The most important aspects of the possibilities of passage between the Atlantic and the Pacific through the Arctic are the claims of sovereignty by both Canada and Russia on the respective seaways. Canada states that the Northwest Passage would be within its internal waters, Russia claims that the Northern Sea Route through the Barents, Kara, Laptev, East Siberian, and Chukchi Seas lies within its territorial waters. The European Union and the United States of America consider these passages as international straits, hence open for navigation. The contest here is again on seeing the seas as an extension of land and considering the natural vastness of the Arctic in a condition of openness.

Water is rapidly becoming the central issue in the management of inhabited territories. The changing conditions relating to its ownership, protection from shortages and excesses, disputes on sovereignty, and underwater oil and mineral resources exploitation, are modifying the perception of the geography of large parts of the Northern European regions, of the Arctic Sea, of Northern America, Russia, and the Arctic regions. More than other regions in the world, the north is wrought by transformations in the configuration of its water resources: from melting ice caps to new waterways, from transformations in the permafrost line to increased pressure on technical infrastructures.

These issues stress the coherence and usability of the International Law of the Seas and the linked UNCLOS. While international geopolitical debates are regulated by the framework of the Law of the Seas, little attention is given in the cultural world to the many implications that this entails on the way we conceptualise and operate in a globalised world.

Crises are moments of transition: they mark the passage from one dynamic to another, they are turning points in multidimensional transformation processes. The accelerated changes and positive feedbacks in the interplay between natural resources, strategic dominance, geography, and the many state and non-state actors pursuing individual and collective interests in the North questions the stability of contemporary knowledge pools and practices.

'Escalation' is part of a larger research project titled 'North', which was initiated by Territorial Agency in 2007. It fathoms the changes in the relations between geography, inhabitation, and knowledge production in the 21st century.

**Yet all of that is only half the truth. Climate change is pure ambivalence: It also releases a “cosmopolitan momentum.”**

Ulrich Beck

*Thesis: Climate change exacerbates existing inequalities of poor and rich, centre and periphery—but simultaneously dissolves them. The greater the planetary threat, the less the possibility that even the wealthiest and most powerful will avoid it. Climate change is both hierarchical and democratic.*

That implies a new program of enlightenment. To the extent that a world audience becomes aware of the discontinuous transformation of the coordinates of social inequality—when, therefore, there is recognition of the fact that the nation state system of social inequality is besieged by global risks (climate change, world economic crises, terrorism), which bind underdeveloped and developed nations to one another—then something historically new can emerge: a cosmopolitan gaze, in which people see themselves both as part of an endangered world and of their local histories and survival situations.

Accordingly climate change—like ancient cosmopolitanism (*stoa*), the *ius cosmopolitica* of the Enlightenment (Kant) or crimes against humanity (Hannah Arendt, Karl Jaspers) —releases a “cosmopolitan momentum.” Global risks entail being confronted with the seemingly distant other. They tear down national borders and mix the local with the foreign – not as a consequence of migration, but rather as a consequence of global risks. Everyday life becomes cosmopolitan: people have to conduct and understand their lives in exchange with others and no longer in interaction only with their own kind. The current, easily adopted naïve catastrophe realism is mistaken. Climate risks are not identical with climate catastrophes. Climate risks are the anticipation of future catastrophes in the present. This “present future” of climate risks is real, the “future future” of climate catastrophes on the other hand (still) unreal. Yet even the anticipation of climate change sets a fundamental transformation in motion in the here and now. Ever since it has ceased to be disputed, that the ongoing climate change is man-made and has catastrophic consequences for nature and society, the cards in society and politics have been dealt anew – worldwide. That’s why climate change by no means leads straight and inevitably to apocalypse—it also presents the opportunity of overcoming the nation-state narrowness of politics and developing a cosmopolitan realism in the national interest. Climate change is both things at once. It is pure ambivalence.

Only a sociological gaze sharpened by the art and schooling of methodical doubt can uncover this and publicly turn it against the dominance of cynicism and helplessness. That’s why the sociology of climate change may be considered exemplary for the creative effect of uncertain times.<sup>1</sup> How can this signature of Second Modernity be located in sociology?

Excerpt of the opening lecture for the sociology conference “Unsichere Zeiten” (Uncertain Times) on October 6, 2008 in Jena

<sup>1</sup> U. Beck/J. van Loon ‘Until the last ton of fossil fuel has burnt to ashes: Climate change, global inequalities and the dilemma of Green politics,’ in *Theory, Culture and Society* (forthcoming).



Hermann Josef Hack

# Climate Refugee Camp Berlin, 070521





# Forecast, 081027

# People should follow the climate

Friedrich von Borries, Matthias Böttger, Florian Heilmeyer,  
in conversation with Yona Friedman

You published an urban planning project for Venice in 1969 that provoked a lot of discussion: Nuova Venezia. In it you propose a large structure—along the lines of your *ville spatiale*—to be built on giant piers over the lagoon and historic Venice. How current is this project today?

From today's perspective it is perhaps difficult to understand, but at that time, the old Venice seemed to be dying. The buildings were gradually sinking, people were moving to the mainland. If the liveliness of the old city was to be preserved, the city had to be modernized and expanded. But in the old city that was not possible. The idea of a *ville spatiale* offered several advantages: over the lagoon, the wide distances between the piers would ensure that only a minimum of land surface was used. The structure of the *ville spatiale* would have used the existing islands and created new ones at the base points of the piers. The *vaporettos*, the Venetian water-taxis, could have set up a simple and traditional connection to Venice. The waterways by which Venice is supplied would have remained untouched by the new city. The structure would have looked something like inhabited bridges between these islands, and the islands themselves would have remained uninhabited.

Rises in sea levels are forecast in the context of climate change. This could have catastrophic consequences for Venice, which is already flooded on a regular basis. Would the Nuova Venezia project be a solution for this?

I don't think so. The *ville spatiale* for Venice is not a plan to be carried out in detail, but a proposal for what might be done. If people followed the proposal, it might at some point look like it does in my drawings. But it could also look quite different. I'm unhappy with all these solutions and fixed rules with which we unnecessarily hamper our development. Rigid plans are always wrong, and—even worse—they leave no scope to correct the errors. Perhaps we should leave more things open and improvise more. People could then act more freely.

So planners should lay down fewer rules?

Architects should understand that they are only designing the starting-point of a process. I was never terribly interested in this business of architecture. I want to set certain processes in motion, but I never had the illusion that the process belonged to me or that I was somehow able to control it. That's also why I can't say how a *ville spatiale* over the Venice lagoon might have looked in the end, because I don't believe in the "foreseeability" of final results.

Might planners and architects best react to the unpredictable consequences of climate change by including plenty of scope for adaptation and improvisation in their planning?

I like the issue of the future, and I believe strongly in an increasing dematerialization of architecture. That might not have very much to do with what architects ought to do; it's more of a general tendency I observe in our society.

Let's take the example of the Arctic. Climate change will make the Northwest Passage between Canada and Russia navigable in the summer months. So an important shipping route is going to be opening up in the next 20 or 30 years, albeit only in the summer. I can imagine that along this route new cities might be founded, but that they will only be inhabited in the summer. Half-cities, you might say. In summer, you wouldn't need that much energy there. There are up to 20 hours of sunlight a day in the Arctic summer. So the architecture of these cities could be arranged with a minimum of enclosed, climatically-controlled space, and the cities could take all their energy from solar energy.

And where would the people go in the winter?

It might prove a wise policy for people in the northern regions if, in the future, they followed the climate over the course of the year. Many animals live in this way—why should such a rhythm be unthinkable for people? Many people already have a second home. That has long been a privilege of wealth, but new building technologies could make it financially possible for very many more people.

This could be a model for a completely new structure of settlements. In the north we would only have summer architecture, which uses much less energy than winter architecture. The cities would simply no longer need as much completely enclosed space. That would be a momentous shift, in architecture, in our energy use, and certainly in our way of life. I think people will be much more mobile in the future, and the dense structures of our cities will increasingly dissolve as part of that process.

And these cities will then be designed by people themselves, with the architect merely initiating the process?

Yes. Urban sprawl in Europe is already an urban structure that is largely designed without architects. All that is done here is that infrastructure measures are undertaken, the design of houses is left to the individual. I think that the different constituent elements of the city will become more and more autonomous, and hence also more separated.

We could also take slums as an example. These are illegal, completely self-organized structures that emerge according to their own rules. The people there must continually come to terms with one another, they have to agree on joint rules.

But the quality of buildings in a slum is usually very poor.

That is a problem of the illegality on the one hand and the lack of skilled help on the other. I think the solution lies in a new form of recycling. We have to learn to make better use of industrial remains. People in villages used to build their houses out of the leftovers of agriculture: rocks collected from the fields became walls. Techniques were developed to use these materials as they are. The cheapest available raw materials of our society today are the waste products of industrial production. We must learn how to make better use of these materials. I'm not saying that we should be directly building houses out of our society's plastic waste—although that is already happening in the slums and sometimes very interesting constructions appear there, from which we could draw conclusions. For example, we might think about the possibility of designing packaging in such a way that we can build something from it.

raumtaktik

# deepnorth by raumtaktik



# The Arctic Perspective (excerpts)

Marko Peljhan, Matthew Biederman

*Inuit are more likely to have an immediate, which is to say unmediated perception of the surrounding environment and living things within it. We to the south are all but wholly insulated from the local landscape, and from what we are doing to both domesticated animals and wildlife. Our perceptions of "the environment" are heavily mediated by the mass media, which report about global warming in particular. Nevertheless, the array of climate opinion and the various uses it's put to are broadly the same in North and South. We to the south may therefore learn something about ourselves from an understanding of how Inuit process climate-related information.*

Franklyn Griffiths "Camels in the Arctic?, Climate change as Inuit see it:

'From the inside out'" *The Walrus*, November 2007

The project we have been working on since 2007 directs attention to the global cultural and ecological significance of the polar regions, with a special focus on the Arctic and the added value that the open infrastructure of new communications and information technology can provide.

The Arctic is one of the zones of crucial contemporary geopolitical controversy and simultaneously a space with an opportunity for transnational, circumpolar, and intercultural cooperation and collaboration. In view of the effects of climate change, the indiscriminate economic exploitation of untapped reservoirs of energy and natural resources in the polar regions is increasingly feasible and inevitable. Unfortunately, because of vested geopolitical and economic interest, all of this is happening without taking into account that there is a determined culture inhabiting the whole of the circumpolar continental territories. Through the spectacular placement of a titanium Russian flag on the seabed at the North Pole in 2007, the Arctic was symbolically once again catapulted into global public awareness. Russia's recent activities, which have been going on since 2001, together with Canada's delayed political responses—specifically the delayed implementation of previously signed native agreements (i.e., the Kelowna Accord)—are indicators of the shifting geopolitical significance of the Arctic and of the shifting relationship between the North and the South. Land and epicontinental claims seem to bypass and ignore the impact on northern native cultures almost completely. The radical ecological and resulting cultural changes taking place in the North are, in our opinion, central to a critical understanding of planet earth as a complex system.

In light of this, the Interpolar Transnational Art Science Constellation (I-TASC) in conjunction with the Consortium Transnational Art Science Circumpolaire (C-TASC), has proposed and is working towards establishing the framework conditions for collaborative projects between aboriginal cultures, artists, hunters, scientists, tactical media workers, and engineers in the Arctic within three broad topical fields: migration, climate, and telecommunications. These three fields, understood both in scientific and poetic terms, share complex mathematics, a dynamic matrix and global reach. The activities of the two organizations are based on the development, installation, and deployment of mobile, sustainable, zero-impact modular research units, open-source ICT (Information and Communications Technology) literacy workshops, and presentation activities within the circumpolar regions and around the globe.

In addition to the physical and technological systems, a key component of the project is the development of an open structure for the dissemination of content, research, and design results and a set of open data policy and participation guidelines. These guidelines can be extended for use by a variety of organizations and individuals within native, scientific, cultural, and academic projects and activities. Thus with the establishment of an open communications infrastructure, the mobile, on-land media-centric unit will serve as a model for an empowered mediated mobility for the Inuit, which is one of the primary long-term aims of the project.

Over the past ten years, the Makrolab project has set a precedent for an art-derived assemblage of art/science based activities and technological developments—with many tangential results. The technological innovations developed and tested in real-world conditions during the Makrolab operations include: renewable energy systems, sensor networks, and remote sensing



### **MAKROLAB mkIIlex, Campalto operations**

systems, unmanned vehicle systems, new open-source software, and operating systems, the development of sustainable architecture, and long-distance communications infrastructures.

Sited at the intersection of art, technology, and science, Makrolab was created by a large interdisciplinary arts/engineering team in Slovenia. It has been in operation since 1997 and has been set up in remote locations in Germany, Slovenia, Australia, Scotland, Italy, and the United States. The ultimate vision of Makrolab operations has always been the establishment of a permanent, collaborative, art/science infrastructure in the Arctic and Antarctic beyond 2007. In addition to providing a means for technological innovation, the project has served as a platform for interdisciplinary and transdisciplinary exchange. While I-TASC and C-TASC conclude a ten-year Makrolab process on the one hand, their foundation opens up new areas of geographical and conceptual action on the other.

Rather than giving a voice to popular science, the present project intends to strengthen the territory of artistic research, which in the context of this project includes indigenous culture and traditional knowledge. Both cultures, that of art as we describe it and that of science, value human curiosity, creativity, and the desire to understand and represent the unknown. The initiators of this project believe that precisely differing epistemologies and forms of knowledge production can be used effectively in the proposed collaborative matrix—primarily by also taking into account also the geopolitical setting and the sociopolitical conditions that are to be encountered in the polar regions of the world and beyond.



The main objectives of the project operations are the following:

- the setup and testing of a High Frequency radio-based open-source messaging and digital communications system named INSULAR RADIO for the Arctic to be used by all of the stakeholders in the North
- the setup and testing of a field based WiFi and microwave open data and content exchange system in the Arctic (Nunatsiavut, Nunavik, Nunavut, Inuvialuit)
- the setup and testing of zero-impact environmental sensor networks to be used by the Inuit and Inuvialuit in conjunction with the traditional methods of environmental observation
- design, prototyping, and fielding of the first BALOK mobile media-centric facility and life support module with renewable energy supply, waste recycling, and communications systems as an open source mobile architecture, which can be replicated and developed further by using native knowledge
- direct, cumulative, and indirect environmental impact assessments of the project carried out in the identified territories
- discussions, interviews, and forums with local inhabitants and the establishment of information sharing throughout the North and further circumpolar areas via an open-source model
- the establishment of clear policy guidelines in regard to the dissemination of content, research results, data, knowledge exchange, and project participation guidelines
- the achievement of Inuit and Inuvialuit open source ICT (Information and Communications Technology) and open systems literacy through a series of free software and open source software workshops, primarily aimed at digital content production, aggregation, and dissemination in a variety of media using free and open standards and methods
- the establishment of a representation structure that would connect northern cultures with the rest of the world by creating links to existing indigenous media production, aggregation, and distribution projects and by enabling the presentation of the supported activities in circumpolar venues and around the globe
- the establishment of a means of production and management of scientific data within the identified Northern communities.

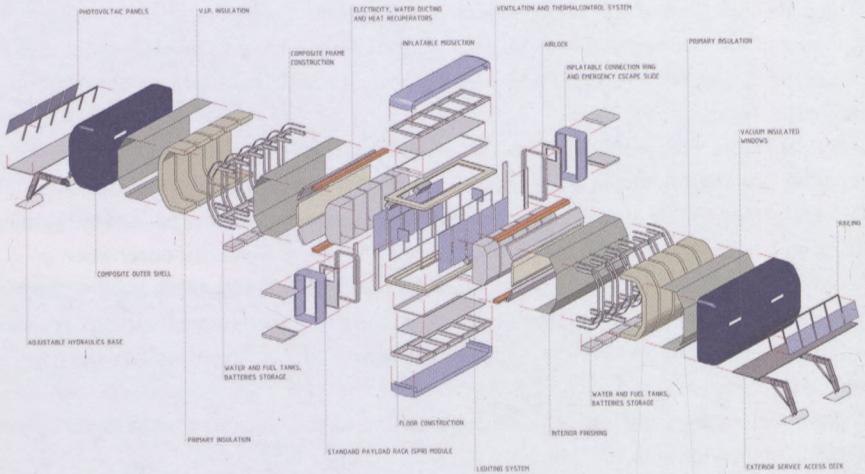
The proposed project belongs to the second phase of I-TASC/C-TASC organizational activities, which started in 2006 with the presentations of the project to Arctic research communities and indigenous peoples. The first event was the Makrolab North expedition to Igloodik, Nunavut, in April 2006, which also marked the start of the collaborative relationship of

the project with Inuit hunters, media workers, and the community of Igloodik.

One of the main thrusts behind the project is the design, development, and prototyping of the first BALOK module. The module gets its name from "baloks", mobile wooden huts provided with runners that can be pulled by reindeer and are still in use today by the Dolgan people in the Siberian tundra in the Republic of Sakha (Yakutia).

Our BALOK module is based on the preliminary first design phase work done by Marko Peljhan, STVAR Architects, Jan Trost, and Nejc Trost during a design workshop in April 2006 at the University of California, Santa Barbara. Further improvements of the design concept were done during a University of California Research in the Arts conference workshop on sustainable

EXPLODED VIEW



makrolab markVII modular structure design milestone I - march 2006



Interpol Transnational Art and Science Consortium

Projekt Atol - Pact Systems - Stvar 5  
Jan Trošt - Nejc Trošt - Marko Pajžan

**The first design milestones of the BALOK module and the LADOMIR station**

architecture at the end of May 2006, with the participation of the Chilean-based Arqze architecture collective, who have extensive Antarctic experience, Johan Berte, the main designer of the International Polar Foundation sustainable Antarctic base and Thomas Mulcaire, the I-TASC Antarctic co-ordinator. The preliminary design was presented to the Igloodik community elders, youth, hunters, and media workers during the Makrolab North expedition in the Isuma offices in April 2006 in order to get Inuit input into the potential usefulness of such an endeavor, and the response has been overwhelmingly positive, providing that this new infrastructure will be utilized and managed by them.

Along the new DEW line the reception of climate change is constrained by enduring resentment over the past and the present conduct of federal and provincial governments in regard to forced relocations, residential schooling, land claims implementation, and the like. The persistent feeling is that Southerners have been disrespectful, callous, and cruel to Inuit. The memories go way back. They seem connected to the traditional ethic of respect that ought to govern all behavior ... Small community support for cooperation on an agenda that originates with Southerners is not easy to find when the project evokes past grievances, and especially when the sense of victimhood is strong. Climate change is such a project, in its demands upon Inuit to listen and agree...

Franklyn Griffiths "Camels in the Arctic?, Climate change as Inuit see it:

'From the inside out'" *The Walrus*, November 2007

The above words and those of Louis Tapardjuk, the Nunavut Minister of Culture, who also said that "... a discourse of disaster that originates with others who are known to be dominant cannot but present a threat to our autonomy, to our ability to set our own priorities, to trust what we observe and experience in our everyday lives." are important statements coming from within the Inuit world and its observers. Statements that we are taking responsibly, ethically, and with great respect. They serve as guiding principles in this project's quest to provide the Inuit and other circumpolar cultures with facilities for enhanced sustainable mobility.

These structures, both physical and virtual, will enable media authoring, communications, and aggregation "from the land" and will connect local culture to artists, scientists, and other invested parties throughout the world.

We have to get back to work!

The text was written in conjunction with the I-TASC presentation at the Art Outsiders festival in August 2008 and a version was first published as a special section of *The Planet Laboratoire* magazine.

Michiko Nitta

# Extreme Green Guerrillas

## Animal Messaging Service (AMS)

**Context:**

Extreme Green Guerrillas are against using the Internet or mobile phones for communication, this will tie them to big corporations. E.G.G. are also against conventional posting services, as they leave a great CO2 footprint. What could be the E.G.G. way of communication?

**Outcome:**

E.G.G. send messages internationally by hacking into the animal migration system. In natural sanctuaries environmental protection agencies tag migrating animals with active RFID tags. E.G.G.s hack into these tagged animals to send digital messages internationally.

**Animal Messaging Service  
Messaging vehicle #3**

**Birds  
with active RFID tags  
implanted.**



Nickiko Nitta

# Extreme Green Guerrillas

1. Environmental Protection Agency taggers tag Animals here.

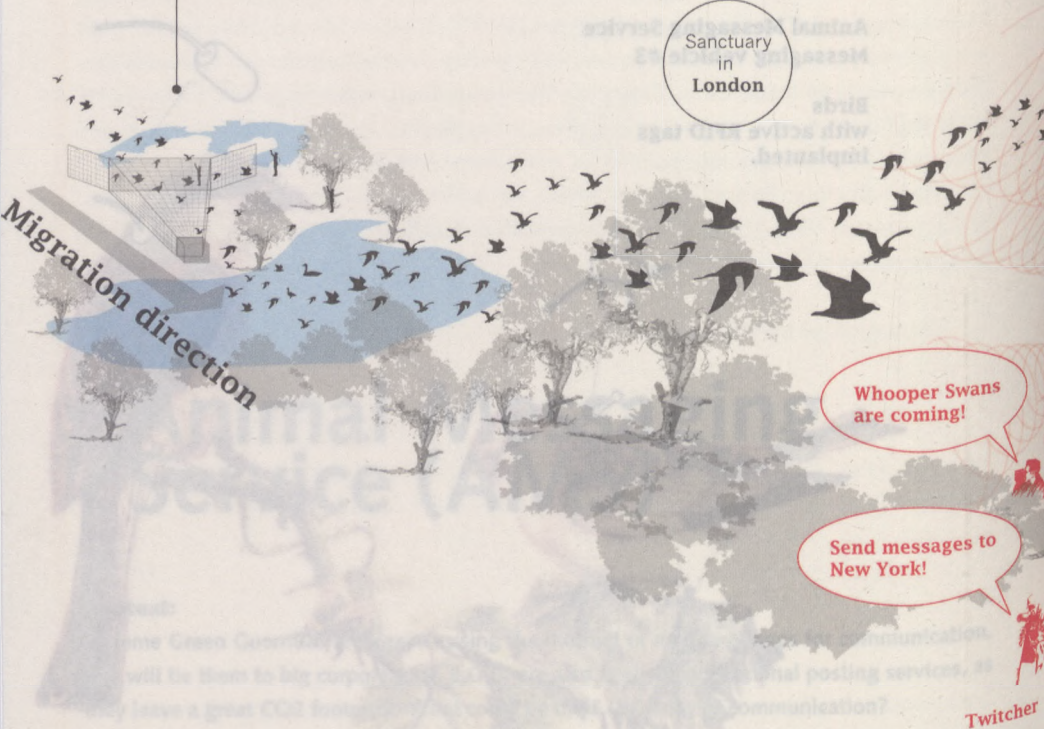
Sanctuary in London

Migration direction

Whooper Swans are coming!

Send messages to New York!

Twitter



## Outcomes:

E.G.C. send messages internationally by tapping into the animal migration system. In natural sanctuaries environmental protection agencies tag migrating animals with active RFID tags. E.G.C. look into their tagged animals to send digital messages internationally.

2. E.G.G. hackers hack into tagged animals to send messages.



3. E.G.G. Hackers hack into tagged animals to receive messages.











Sanctuary  
in  
New York


# Animal Messaging Service (A.M.S.) : FROM

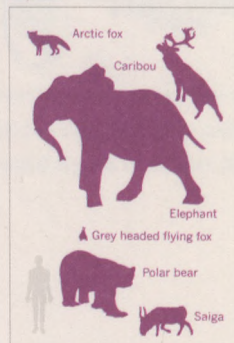


## Price List

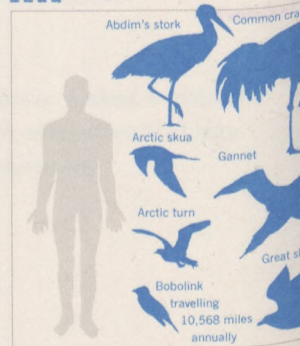
 Whale/seal (sea mail)  
£5.00

Sperm whale	
Sei Whale	
Humpback whale	
Finless black porpoise	
Bottlenose whale	
Leopard seal	
Kerguelen fur seal	

 Mammals on land (land mail)  
£2.00



 Fast bird  
£3.50





# Animal migration routes

## Examples of messaging routes: U.K. to New York

1.	London	Arctic turn	New York	£3.50		
2.	London	Iceland redwing	American robin	New York	£4.00	
3.	London	Whooper swan	American robin	New York	£6.00	
4.	London	Whooper swan	Polar bear	New York	£6.50	
5.	London	Atlantic Herring	Cod	American robin	New York	£3.00

mo.4-9 Stay around this place From April to September.

- Bird (air mail)
- Mammals in the sea (sea mail)
- Mammals on land (land mail)
- Fish (sea mail)
- POST OFFICE



Spine-tailed swift

Snow goose  
72days from  
Tundra to  
Mexico  
(3000miles)

White stork

Whooper swan  
42miles /hour  
Iceland - Scotland (590 miles)  
= 12.4hour (sunny) to 42.4hour(windy+rainy)

Summer tanager

### Lazy bird (air mail) £1.50

American robin  
78days from Iowa to Alaska (3000miles)

Blackpoll warbler  
200miles/hour + rest  
30days : Florida - South Minnesota (1000miles)

Cuckoo

Siberian willow warbler

European swallow

Golden plover  
30-35miles/hour

Wheatear

Wilson's petrel

Iceland redwing

Little gull

Long tailed cuckoo

### Reliable fish (sea mail) £1.00

Atlantic cod

Albacore

Salmon

Bonito

### Unreliable fish (sea mail) £0.50

Herring

Sardine

Animal Messaging Service (A.M.S.) FROM

# E.G.G. delicacy

**Context:**

Do you buy only organic products? Free range eggs to support happy chickens? Somehow modern society has mistaken being healthy with green activity. Although individuals can be healthy by eating good food, this activity doesn't necessarily mean the Earth is healthy. If you are an extreme green person, what do you eat?

**Outcome:**

Extreme Green Guerrillas' food has to be resourced from existing materials within the local area. By modifying urban vermin, such as pigeons and rats, Extreme Green Guerrillas have created more edible and gourmet-like delicacies. One example is an animal called piguail, which is hybrid of a pigeon (vermin) and quail (gourmet).

Extreme green guerrillas' breakfast costs 0kg CO2 emission in total.

Lawn salad:  
0kg CO2 emission  
Local park

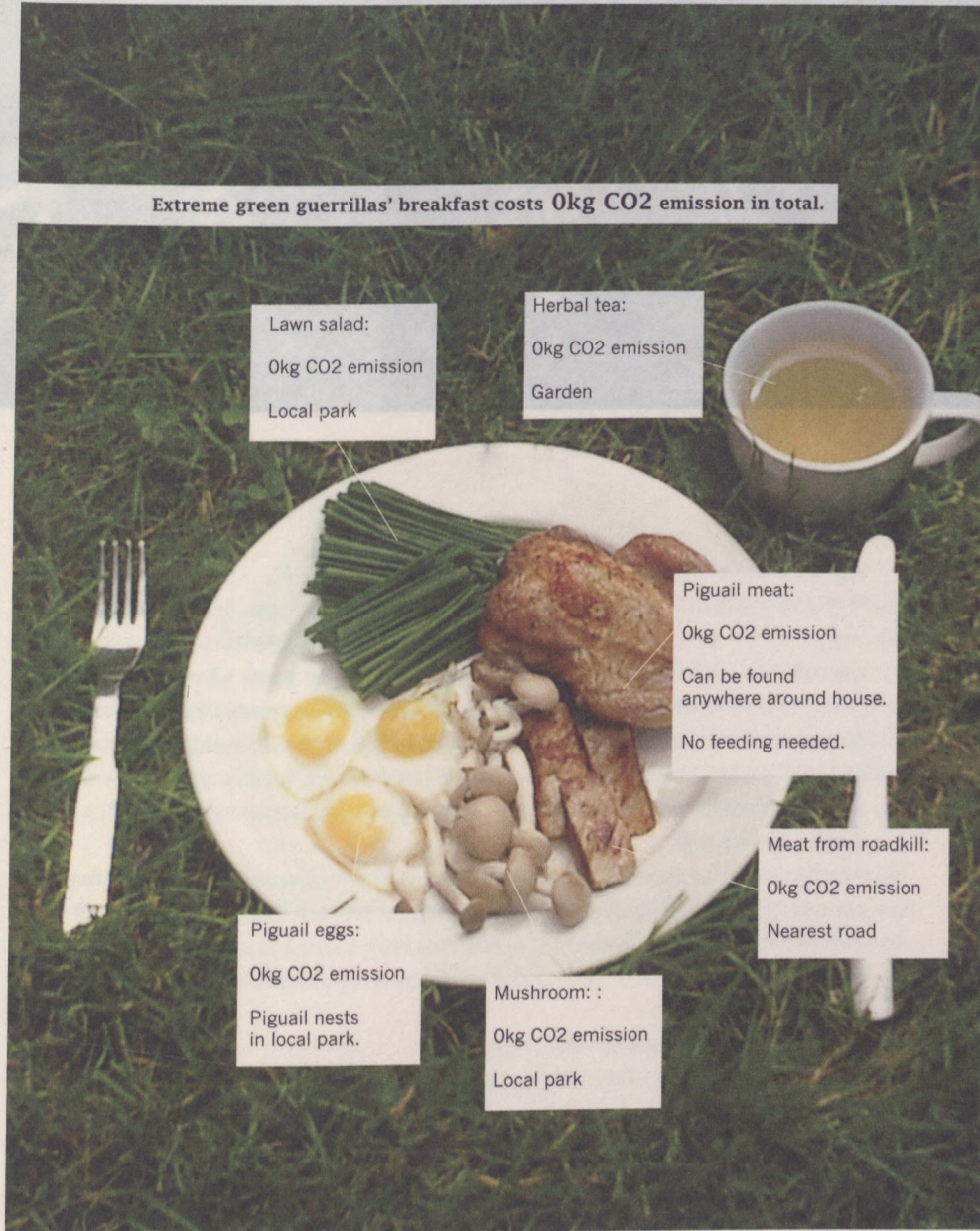
Herbal tea:  
0kg CO2 emission  
Garden

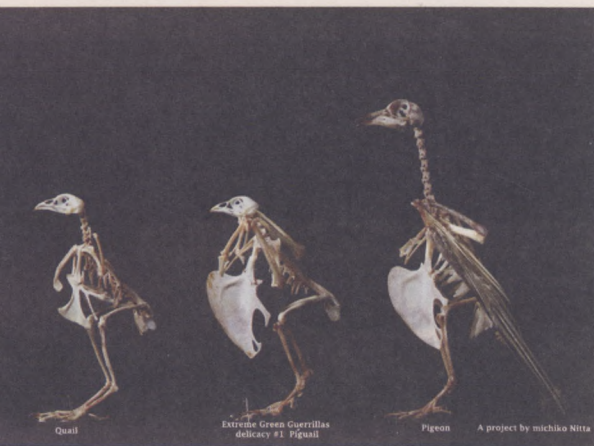
Piguail meat:  
0kg CO2 emission  
Can be found  
anywhere around house.  
No feeding needed.

Piguail eggs:  
0kg CO2 emission  
Piguail nests  
in local park.

Mushroom: :  
0kg CO2 emission  
Local park

Meat from roadkill:  
0kg CO2 emission  
Nearest road





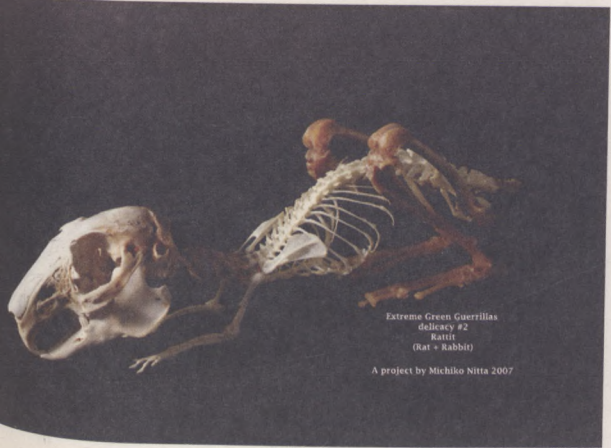
Quail

Extreme Green Guerrillas delicacy #1. Pigeon

Pigeon

A project by michiko NITTA





Extreme Green Guerrillas  
 delicacy #2  
 RATTI  
 (Rat + Rabbit)  
 A project by Michiko Nitta 2007

# Lasagna

Ingredients for the béchamel sauce:

## Preparation:

First cut up the piece of las. The chips should also be up for 30 minutes. Add the onion, carrot and white wine. Add healthy amounts of salt, pepper, and paprika. Let simmer for about 10 minutes.

Next, grate the plastic cheese and remove the water. Spread a layer of ground meat in an ungreased cast-iron dish and spread a layer of ground meat. Layer the dish with alternating layers of ground meat, béchamel sauce, and plastic cheese. Scatter a little plastic béchamel and plastic cheese over the top.

Bake well in an oven preheated to 250° Celsius. When the baking time is half over, the lasagna should be covered. When the baking time is almost over, open the sides of the lasagna pan and roast each side for 5 minutes with a hot oven. Before serving, add a little foam cheese and let it cook in.

# Lasagna

Urs Dubacher

## **Ingredients for the béchamel sauce:**

¾ of a grey Logitech keypad, cut up

## **Ingredients for the ground-round mix:**

150 grams of motherboard silicon chips

50 grams of CMOS chips

1 can of thermal compound

½ piece of iron from a video card

1 tube of white glue

tomato paste

paprika

pepper

salt

## **Ingredients for the remaining layers:**

1 piece of black rubber (from car floor mat)

2-3 video cards

**Preparation:**

First cut up the piece of iron. The chips should also be finely chopped. Then lightly fry the chips with the iron. Stir in tomato paste and white glue. Add healthy amounts of salt, pepper, and paprika. Let simmer for about 10 minutes.

Next, grate the plastic cheese and remove unnecessary chips from the video cards. Place a piece of rubber in an ungreased casserole dish and spread a layer of ground-round on top. Then fill the dish with alternating layers of ground-round mix, béchamel plastic and video cards (or rubber). Scatter a little plastic béchamel and plastic cheese over the top layer of béchamel.

Bake well in an oven preheated to 230 ° Celsius (number 3 on a gas oven) for approx. 40 minutes. When the baking time is half over, the lasagna should be turned 180 degrees. After baking, cut open the sides of the lasagna pan and roast each side for 5–10 minutes with a hair dryer. Optional before serving: add a little foam cleaner and let it sink in.







point" is made two-dimensional by the addition of a third dimension, and is referred to as a point by extending the Cartesian coordinate system with a polar coordinate system.

It is also pointed out that "emphasis on the individual" as an "anti-God view, different view-points," and "change in ranking of main values" are very important. Here, "an individual" is defined as a person who is not a member of a group, but who is a member of a group.

The focal point of (2 Skins) that is located from above is called through "2 Skins" as a point. The focal point of (2 Skins) is located from above is called through "2 Skins" as a point. The focal point of (2 Skins) is located from above is called through "2 Skins" as a point.

# **“Architecture” as thinking process 2 Skins—Architecture without building**

Yukiko Shikata

Our view of the world and actions are influenced by common sense and practices of time and place. Not excepting our consciousness of space, time, and body. This fact, however, is so obvious that we seldom are conscious of it. It is probably because we are trying to avoid processing an enormous amount of data that we would have to take on the moment we have doubts about it.

For instance, “one’s self” has somehow specified as an independent subject in society since the modern era, but as it is not necessary to go back to Sigmund Freud; we all realize that our self being is an unstable creature influenced by environment and others. Media philosopher Vilém Flusser stated already in the 1970s that one’s self is no more than a nodal point in a network. The thought of the self as a nodal point, which is generated in varied ways in accordance with different relations, is considered rather natural in the present age, in which information space is exposed to the extent that it surpasses material space.

Sota Ichikawa begins his project with an idea that a human being's consciousness and view of the world might be provided by the method of writing and description. Although his project involves architectural space, it does not converge on architecture as a building, and his practice involves searching conceptually for an omni-directional view of the world on a computer. According to him, architecture is "thoughts on the method of dimensional arrangement and deletion" that exist in "a crevice between thinking and expression." It means that what was not paid attention to due to some expression should be taken into consideration, and there, the process itself that produces the result is considered "architecture," rather than the result. The work to investigate what was left out during the reducing process reminds us of Walter Benjamin's way of thinking, in which he transits through the past by weaving networks in its wreckage.

In Ichikawa's first project *Smooth compound eyes - > Super eye* (1995--), a new notation method that does not depend on modern perspective drawing was realized through "Super eye," a computer program that he developed by himself. By projecting and moving an image on the surface of a sphere instead of a plane, he produced a conceptually de-hierarchical view of the world opened in all directions from a virtual zero point. It is not a perspective drawing (assuming that the subject is definite) that emphasizes a flat perspective seen from human eyes. The image, which is plotted on a virtual sphere with a surrounding environment reflected on it, shows a reversed view from the inner zero point (=self). The sphere image with the center as the zero point is made two-dimensional by a Mercator projection and is shifted to a plane by replacing the Cartesian coordinate system with a polar coordinate system.

Ichikawa points out that "emphasis on the individual," an "anti-God view, diffused viewpoints," and "change in ranking of scale (values)" are very important. Here, "an individual" is not the modernistic self but the zero point or what is decided only by surrounding images afterwards and in reflection. Based on infinite shifting possibilities, it loses an absolute viewpoint and acquires maldistributed, mechanical viewpoints. Then they get priorities in order, and through those, another notation possibility=the world's perceptive possibility is presented.

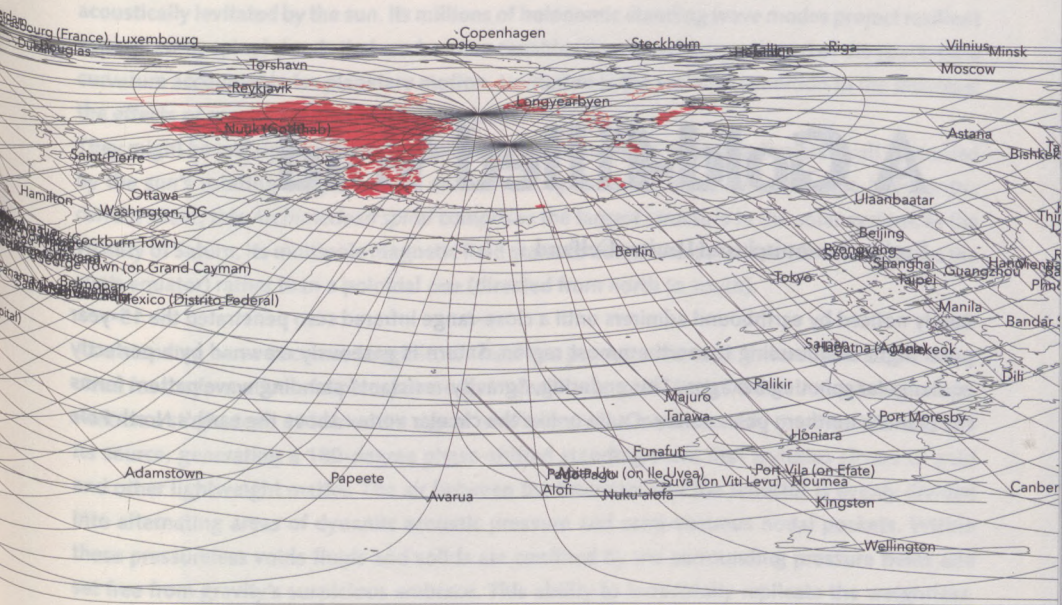
The focal point of *2 Skins* that is updated from above exercises through "Super eye" is the surface notation of the earth and human body, which are considered to be two skins as humans' starting point. An optional zero point (Tokyo for the earth, and the center of a head for the body) is set up, and the notations of the skins of the earth and the body, which spread from there, are plotted out by the program. They are presented not as totally different things but are shown to promote the process of thinking about what is carried out between the earth/body, the outside/inside, and thought/expression. In other words, they direct the audience's thinking toward "architecture," and that process appears as "un-architectural architecture (Ichikawa)."

*Corpora in Nighttime: Sota Ichikawa, Max Elger, Alex Martig, Aurore Kubers,  
Satoru Hige, Heidemarie Nardicchia  
World Notation from Berlin on Super Eye*



(or any other known pole for that matter), the 25-300-Å ultraviolet light, with its associated energy, conical cloud system constitutes a startling cosmic analogy as well as a quantitative mechanism and geomagnetic neoclassic. The "music of the spheres" of this higher-order structure that suggest a cyclic, standing wave geometry, resembling something like plasma confinement to the neuronal feedback looped consciousness.

A self-sustaining standing trajectory may very well have to bridge the ultimate gap between seemingly measurable physical space and its resolutely unquantifiable counterpart: mental or metaphysical space. Regardless of its medium, the simple addition of a seed wave to its own self-reflections cannot preclude the non-linear synergies of the resultant standing wave. Each advancing reflection can reinforce constructive interference that within a suitably confined plasma, for instance, outweighs the feeble, time-averaged pull of gravity: the plasma is then acoustically levitated by the sun. Its null-point geometry is a true cosmic eye.



frictionless environment cosmology based in the near vacuum outer space it might have an extended supra-sensory awareness of space-time itself. The standing objects maintain the frequency and amplitude of the standing wave that permeates the atmosphere influencing one another's spin patterns. Each part is an inseparable co-dependent reflection of the whole. Like the telepathic interdependence of spin or charge between distant particles, certain synchronization phenomena seem to surpassment all recognizable force fields, even the cosmic speed limits.

**Corpora in Si(gh)te: Sota Ichikawa, Max Rheiner, Ákos Maróy, Kaoru Kobata, Satoru Higa, Hajime Narukawa**  
**World Notation from Berlin on Super Eye**

offered his most measured physical perceptions to the void, in body and his pen. The same

# A Gold-filled Void

Evelina Domnitch and Dmitry Gelfand

Barely noticed by earthbound admirers until a close-range infrared scan penetrated the 15-year polar night enshrouding its northernmost region, Saturn is gaseously crowned by a perfectly equiangular spinning hexagon. This enduring, "gravity-resistant" standing wave pattern forms the planet's northern polar vortex. Quite unlike the circular vortex above the earth's North Pole

(or any other known pole for that matter), the 25,000-kilometer wide, 100-kilometer deep hexagonal cloud system constitutes a startling cosmic anomaly as well as a superlative atmospheric and geomagnetic oscilloscope. The "music of the spheres" often imparts resonant signatures that suggest a cyclic, standing wave geometry, underlying everything from photon confinement to the neuronal feedback termed consciousness.

A self-sustaining roundtrip trajectory may very well serve to bridge the chimeric gap between seemingly measurable physical space and its resolutely unquantifiable counterpart: mental or metaphysical space. Regardless of its medium, the simple addition of a seed wave to its multifold self-reflections cannot predict the non-linear synergetics of the resultant standing wave. Each advancing reflection can reinforce constructive interference that within a sonically confined plasma, for instance, outweighs the feeble, time-keeping ghost of gravity: the planets might be acoustically levitated by the sun. Its millions of holonomic standing wave modes project resilient sono-plasmic spinal chords that are far more capable (than massless gravitons) of the space-time curvature accountable for planetary motion. Levitation is the eminent condition in the universe; the effects of gravity are circumstantially local.

They might be just ripples across the spiraling "ballerina skirt" (as astrophysicists call it) exuded by the sun's rotating magnetic field and carried by the solar wind. Known as the *heliocentric current sheet*, this *Archimedean spiral* comprises the largest structure in the solar system. In the vicinity of Saturn, its multipole magnetic field starts to don a toroidal shape (directed around the sun's equator) rather than a poloidal one (directed from north to south).

As a standing wave becomes tangible, it "fertilizes perception and as it were, provides the nucleus for the formation of a perceptive organ sensitive to periodicity" (Hans Jenny). In *Sonolevitation* a single-tone 15 kHz audio signal is reflected at an immeasurably precise distance from its source, generating a 180-degree phase-shifted standing wave that levitates slivers of gold and other lightweight matter. The air between the intonator and the reflector is evenly divided into alternating areas of dynamic acoustic pressure and semi-vacuous nodal pockets. Within these pressureless voids fluids and solids are confined by the surrounding pressure fields and set free from gravity's suspicious embrace. This ability to terrestrially replicate the weightless, frictionless environment commonly found in the near-vacuum of outer space is coupled with an extended opto-aural awareness of space-time itself. The levitating objects modulate the frequency and amplitude of the standing wave that suspends them, consequently influencing one another's spin patterns: Each part is an inseparable, co-emergent reflection of the whole. Like the telepathic interdependence of spin or charge between distant *quantum-entangled* particles, certain synchronization phenomena seem to surmount all ostensible force fields, vacuums and cosmic speed limits.

The notion that the translucent womb of space-time can be rarefied and compressed by its vibratory contents has been widely accepted since the beginning of the 20th century. The vibrations of mental activity are surely no exception. To quench his obsession with levitation Yves Klein even offered his most treasured physical possessions to the void: his body and his gold. The Seine





Global climate change is the greatest crisis humanity has ever faced. According to the Intergovernmental Panel on Climate Change, the warming of the climate system is unequivocal, is very likely due to anthropogenic greenhouse gas concentrations, and will continue for centuries even if greenhouse gas concentrations are stabilized. However, because the climate is emerging from a complex system, uncertainty has played a role. Because responding to the crisis requires

behavioral and structural changes in society, in many cases this uncertainty has been  
**A Leap into the Void, 1960** for public presentations of the issue to the public sphere.

River sufficed as a symbolic chasm into which he jettisoned his golden materiality. In return for his sacrifice, the artist was to merge with the "universal" void. Analogously, Klein's only sound work, *Monotone Symphony*, is meant to levitate the listener, at least for an extra-dimensional "moment whose duration is immeasurable." When an hourglass is rendered weightless, the sands of time cease to flow.

The first ever passage through the abysmal subatomic void also happened to require some sacrificial gold, which was irradiated by a beam of alpha rays (helium nuclei). Marking the birth of particle physics, Ernest Rutherford's Gold Foil Experiment revealed, among other things, that there is far more "emptiness" than meets the eye—or that was sensed by most instruments of detection before 1909. However, tremendous strides in particle scattering resolution have since confirmed that the so-called vacuum between and within matter—and even the blackest hole in interstellar space—are filled with copious *quantum harmonic oscillators* and, perchance, *dark energy*. The pure, unobservable, motionless void has once again returned to its former status of metaphysical fancy. Reciprocally, physical space has been considerably upgraded: having finally been stripped of its deterministic "local realism" (as it is known in physics), space-time is now free to dissolve into *aethereal* abstraction.

# Ground Truth: Monitoring and Measuring the Social Geography of Global Climate Change

Andrea Polli

## The World as a Site of Computation

"...society creates its environment as much as it adapts to it, and that technology has changed the environment into an increasingly synthetic produce of human activity. Perhaps there is no better example of 'denaturalization' [quotes added] than the looming uncertainty regarding the effects of human activity on the global climate."<sup>1</sup>

Global climate change is the greatest crisis humanity has ever faced. According to the Intergovernmental Panel on Climate Change, the warming of the climate system is *unequivocal*, is very *likely* due to anthropogenic greenhouse gas concentrations, and will continue for centuries even if greenhouse gas concentrations are stabilized. However, because this crisis is emerging from a complex system, uncertainty has played a role. Because responding to the crisis requires significant behavioral and structural changes in society, in many cases this uncertainty has been highlighted in the media and other public presentations of the issue to discredit science.

In *Re-Thinking Science* Helga Nowotny describes the rise of scientific uncertainty in the public consciousness as creating a "risk" society, and she asks how living in a perpetual state of risk has transformed societies. In the quote above David Hess identifies technology as playing a significant role in what he calls "denaturalized" environments in which the anthropogenic impact is greater than any other. Among the factors contributing to climate change, human influence is increasing more rapidly than any other. Because environmental issues directly affect and are affected by the lives of individuals and the structures of societies, it is crucial that these issues be addressed in the social realm.

"There is more information available at our fingertips during a walk in the woods than in any computer system..."<sup>2</sup>

By comparing a walk in the woods with an information-rich computer system, Mark Weiser is both disparaging and elevating the social power of a computer system in his 1991 essay "The Computer for the 21st Century." On the one hand, he is highlighting the shortcomings of computer systems. As a screen-based, primarily visual medium without touch, taste, or smell, information presented through a computer system lacks the multi-dimensionality of a physical space. On the other hand, by merely showing that it is possible to make such a comparison, Weiser is elevating the computerized way of understanding as something that might just approach real-world understanding through "information." The major shift in thinking represented by the quote is made clearer if one replaces the term "information" with "data." The woods, identified as a "data-rich" environment, are then analogous to a computer-based environment. Through his essay Weiser is attempting to get software designers and engineers to design computer-mediated experiences that are as aesthetically and emotionally powerful as a walk in the woods.

Weiser envisioned ubiquitous computing, computers embedded into every aspect of society. Ubiquitous computing is a condition that now, less than twenty years after Weiser's essay, is part of everyday life and has changed how the world is seen, as evidenced by this quote from Paul Dourish in 2004:

"So, the world becomes a site of computation and an object of informational representation. We start to understand and model the world in information terms."<sup>3</sup>

What are the social and cultural effects of defining both the natural and man-made environment as "information space"? What impact has the ubiquity of computerized devices had on public understanding of the environment in light of the climate crisis? How has the public participated in the process of weather and climate data collection and modeling? Are new structures for public participation developing? Can artworks contribute to a change in these cultural practices? Can artworks function as a driver or catalyst for social change?

### **The Ground Truth Project**

With these questions in mind, last year I had the opportunity to go to Antarctica for two months on a National Science Foundation-sponsored artist's residency, where I worked alongside scientists studying the global implications of Antarctic weather and climate change. The Antarctic is unlike any other place on earth: geographically, politically, and culturally. Larger than the US, it is a frontier where borders and nationalities take a back seat to scientific collaboration and cooperation, a place where the compass becomes meaningless, yet navigation is a matter of life and death. It is an extreme environment that holds some of the most unique species, but it is also an ecosystem undergoing rapid change. 2007/2008 marks the fourth International Polar Year (IPY), the largest and most ambitious international effort to investigate the impact of the poles on the global environment.

Prior to my trip, I had spent several years working in collaboration with atmospheric scientists to develop systems for understanding storm and climate information through sound (a process called sonification). I created a spatialized sonification of highly detailed models of storms that devastated the New York area; a series of sonifications of actual and projected climate in Central Park, the heart of New York City and one of the world's first locations for climate monitoring; and a real-time multichannel sonification and visualization of weather in the Arctic.

I wanted to go to Antarctica to find a way to more closely engage with the issue of global climate change. I had been using data from remote weather stations in my projects, though I had never actually visited them. While in Antarctica, I spent most of my time in two places: The Dry Valleys (77°30'S 163°00'E) on the shore of McMurdo Sound, 3500 km due south of New Zealand, the driest and largest relatively ice-free area on the continent, completely devoid of terrestrial vegetation. It is a terrain of frozen lakes, glaciers, and mountain rocks that many scientists believe may be similar to the terrain of Mars in the past. I also spent time at the geographic South Pole (90°00'S), the center of a featureless flat white expanse, on top of ice nearly nine miles thick.

In researching how I might approach a project in this unusual setting, I looked for inspiration from history. I made a connection to the writings of the early-20th-century explorer Admiral Richard Byrd. In the diaries of his solo winter-over at a remote Antarctic camp, he writes of being alone and slowly poisoned by a faulty heating system yet unable to live without this warmth. The weather instruments he monitored were the only things that provided him with solace:

"I was not long in discovering one thing: that, if anything was eventually to regularize the rhythm by which I should live at Advance Base, it would not be the weather so much as the weather instruments."

Unlike Byrd, my focus in Antarctica quickly shifted from the instruments to the people. I learned that many more people are stationed in Antarctica to observe and record weather and climate than are machines, and that the scientists call this process of observation "ground truthing."

Why, with sophisticated instrumentation and remote sensing, do we depend upon humans on the ground to look up at clouds? What is it that the machines are missing, and what is the human role in understanding what is unfolding? What is the meaning of ground truth, and can it inform and enhance our relationship with the environment? These are the questions I am exploring in my current series of works called *Ground Truth*. *Ground Truth* presents interpretations of data, interviews, and documentation of weather observers and scientists as they discuss, maintain, and gather data from remote sites.





Prior to my trip, I had spent several years working in collaboration with atmospheric scientists to develop systems for understanding storm and climate information through sound (a process called sonification). I created a spatialized sonification of highly detailed models of climate

In interviews with scientists about this subject, I was struck by how many spoke about the importance of non-quantitative knowledge. I thought that only numbers would matter to the scientists, not the visceral experience of a site, but I was surprised to find this was not the case at all. For example, Dr. Andrew Fountain, the head of the Dry Valleys Long Term Ecological Research Group, said:

"Just because you have the data doesn't mean you understand the system. It's important to come down and view the landscape, and in our case view the glaciers, and see how the glaciers are reacting to these changing environments. And that feeds into our understanding and our non-quantitative knowledge."

This interview, as well as audio and video interviews with nearly 20 other science researchers, along with a preview of a short video documentary, raw sound recordings, images, video clips, and project updates are accessible to the public on my website [www.90degreessouth.org](http://www.90degreessouth.org).

In addition to the video documentary, part of the *Ground Truth* project is a temporary public art installation consisting of a modified weather station interpreting data in real time. Audiences experience the instrumentation used by scientists and learn about the data being collected through visualizations and sonifications. The station has been installed at the Atlas Center for Art and Technology in Boulder Colorado and will soon be installed at Eyebeam in New York City.

MP: Yes, we were thinking of some sort of mobile mobile unit and technical construction set up, where you could also produce work and communicate with other hunters out on the land.

ZK: Right now we have that trailer—on the side. We have one channel and every body talks on the one channel.

(There is a break, a technical glitch in the recording. The interview still warms up.)

ZK: Yeah, I was living on Seattle when growing up with my brothers and sisters when the government somehow got the message wrong to my parents. "You guys are receiving family allowance, why aren't you going to school? We can cut your family allowance!"

MP: So this is quite a long story, that the government then denied the people who are living out in the land, that they will not their allowances, if they don't send their kids away to school, yeah?

ZK: Yeah, exactly.

MP: They did this with everybody in the, what? 1950s and 1960s?

ZK: At that time, the only income was from ... skins ... furbins, berries and they

# Welcome to Iglookik

ZK: And ...

ZK: Most people were living in match-box houses ... around Square Mile houses, started into ... Federal Day School, a nursing station, police and the Hudson Bay Company ...

... there was the Hudson Catholic mission, the ...

Despite the developed world's climate-controlled interiors and easy access to all kinds of fresh produce at any time of year, our lives are still dependent upon the weather and climate. With global warming, our dependence is becoming even more apparent. In part, the purpose of giving the public access to climate and weather information and instrumentation helps people understand our connection to the atmosphere and promotes greater harmony with these natural forces.

Writing nearly 100 years ago of the harsh Antarctic environment, Richard Byrd realized that living simply, in touch with the earth's natural rhythms, is not only possible, but actually beneficial:

"It occurred to me then that half the confusion in the world comes from not knowing how little we need."

- 1 David Hess, *Alternative Pathways in Science and Industry: Activism, Innovation and the Environment in an Era of Globalization* (Cambridge: MIT Press, 2007), p. 9.
- 2 Mark Weiser, "The Computer for the 21st Century," *Scientific American* 265, no. 3 (1991), pp. 94-104.
- 3 Paul Dourish, Johanna Brewer and Genevieve Bell, "Information as Cultural Category," *Interactions* (July/August 2005), p. 32.

# Welcome to Igloolik

Stephen Kovats and Marko Peljhan with Zacharias Kunuk

Transcript of an April 2006 discussion on-location in Igloolik, Nunavut, Canada between Zacharias Kunuk, Marko Peljhan, and Stephen Kovats. In the form of an open interview hunter, film maker, and Inuit media activist Zacharias Kunuk was asked about how he came to film and media, and how he sees the relationships between mobile technologies and cultural survival. Kunuk is co-founder of Igloolik Isuma Productions and of Isuma.tv, the recently launched online portal for Inuit and Indigenous media culture. The interview was conducted as part of a research trip to Igloolik within the framework of I-TASC, the Interpolar Transnational Art Science Constellation, a project of the International Polar Year 2007/2008 which envisions collaborative, mobile, tactical, cultural media structures in both the Northern polar and Antarctic regions. I-TASC has one of its roots in Peljhan's Makrolab project, a mobile, autonomous, open source, and collaborative arts and science media lab. The recording was part of Polar Tangent, an interactive live online event webcast from the headquarters of Isuma Productions in Igloolik, and co-hosted by V2\_, Institute for the Unstable Media Rotterdam.

The interview was conducted on the outskirts of Igloolik village, at the site of an abandoned communications antenna, on a bright, yet windy and bitter cold Arctic spring day. At this time of year on Igloolik Island (69° 22' N, 81° 47' W) the sun is out in full force, with temperatures rising during the day to ca. 30° Celsius. The discussions begin outside, but the camera is frozen, the recording unintelligible, and the wind biting. The conversants climb into Kunuk's Land Rover, where both they and the camera slowly warm up, and the tape begins to reveal the conversation already underway ...



MP: Yes, we were thinking of some sort of remote mobile unit and tactical communications set up, where you could also produce work and communicate with other hunters out on the land.

ZK: Right now we have this radio—an fm radio. We have one channel and everybody talks on the one channel!

*(There is a break, a technical stutter in the recording ... the camera is still warming up)*

ZK: Yeah, I was living on Baffin Island, growing up with my brothers and sisters when the government somehow got the message across to my parents: "You guys are receiving family allowance, why aren't you going to school? We can cut your family allowance!"

MP: So this is quite a long story, that the government threatened the people who are living out in the land, that they will cut their allowances, if they don't send their kids away to school, yes?

ZK: Yeah exactly.

MP: They did this with everybody in the, what? 1950s and 1960s?

ZK: At that time, the only income was from ... skins ... foxskins, bearskins and they come into town, they would come with their dog teams into town.

SK: And what kind of a town was Igloolik, when you came here?

ZK: Most people were living in match-box houses ... square! Square little houses, slanted little houses ... like the one we still have on the beach. There was Igloolik Federal Day School, a nursing station, police and the Hudson Bay Company ... there was the Roman Catholic mission, the Anglican mission, generator, oil tanks ... and that was about it!

SK: How was it for you coming here, for you personally?

ZK: I thought Igloolik is a big town now. I'd go with my parents and see the big town and come back out on the land. But I didn't know I was here to stay. They were going back and we were standing on the shore crying! It took them two years, my parents, to come back to town. They couldn't be without us!

MP: And the teachers were English? Southerners? All Southerners?

ZK: Yes, All Southerners.

MP: It was very difficult for the kids in the beginning?

ZK: We were there to learn English, so we had to speak English.

MP: But you didn't speak any English at the time?

ZK: I remember that I had my name written on the blackboard for two whole weeks ... so I could learn how to write my name!

MP: And your name is what, your Inuk name?

ZK: My Inuk name - I have five Inuk names Kigutikajuk, Attagutaluk, Quatuq, Tagaq, Nujatut. Those are my names that were given to me.

MP: And your mom calls you Kigutikajuk? That's your first name.

ZK: Yeah, that's my fathers' mothers' name. So my father calls me mother!

SK: And how did you become Zacharias?

ZK: When I got baptized, I got that name.

MP: So the name was given by the priest.

ZK: Yeah, it has to come from the bible!

SK: So this was also part of the deal, coming into town, that you would have to get baptized and brought into either Anglican or Roman Catholic church?

ZK: No, there was something going on with the Catholics and the Anglicans, when they were trying to recruit more people on their side. And you can see it, because most people in Baffin Island are Anglicans. That was the Anglican territory and the Keewatin region, up to here it's Catholic territory.

SK: So Igloodik is a sort of on the dividing line?

ZK: Yeah, we're under dividing line. Most of us who came from Baffin Islands are Anglicans. When we came into town the Catholics already had their houses, so we went over to the other side.

SK: And you started working with video and Inuit broadcasting cooperation at a certain point?

ZK: I liked going to the movies, and I was doing carving ... soapstone carving. And, you go to the movies, and ah, it's like God sent! You don't even think about people behind the camera, you just think it just happened! When I was young and going to school in my teens, I was doing still photography, and I was good at art. Then in 1980 I heard that any living person could own a moving picture camera. And, I needed one! So the following year I got one!

SK: How did you get it?

ZK: I traded my carvings. I flew down to Montreal to an Eskimo art gallery, and traded my carvings for my airfare, my hotel ... and camera, Portapack, TV, VCR. And, I had them shipped back.

SP: What was your first camera?

ZK: Sanyo. I still have it in the office ... Sanyo Color Video Camera.

SK: What does Isuma mean?

ZK: Isuma means to think. When we started out, of course we needed a name. I made a program that requires a lot of thinking, so we just named it Isuma.

MP: Thinking.

ZK: Thinking.

SK: And what is Isuma today?

ZK: Isuma has been independent from day one, and we're independent today. And we're after money from our government so much, that probably they don't like us. But every fiscal year money ends, and with the new fiscal year, we go at it again. Inuit are just learning about this.

SK: What do think about doing this kind of broad international project on mobility and communication that we're proposing?

ZK: We've been thinking about this a good number of years, because ... we're stuck here in the community. It's the only place where it has power and satellite dish, and it's the only place where we can work. But we've been imagining, how we can work out there, in the middle of nowhere, just powered by solar, or wind



**'Welcome to Igloolik, Igloolik Island, April, 2006'**

power, and aim at some satellite, out there, to the outside world. Being in a place we love to be and still have access and communicate.

MP: Maybe, this sounds like we're looking at the same thing?

ZK: What you have, we'd been dreaming all these years!

MP: Maybe we can dream together in the future!

SK: Marko, how does I-TASC relate to the connection between the North and the South?

MP: When we created Makrolab, one of the places we decided Makrolab should go—and it was more intuition, not based on any real knowledge—was of course what is now Nunavut! And there was even a map of the area on the Makrolab website. I didn't know about Isuma then. So Makrolab always had this vision of the North, because in the North and in the South Poles, at the poles, you actually can observe the changes that are going on on the planet much more radically, and much more clearly. You see every change, a change in the color in water is really connected to many processes that are global in nature, for example a change in the number of caribou roaming the land is connected to the mind, and the expansion of this brutalist land grabbing that is going on here in the North. So it's all a big ecosystem as it was somehow imagined even in a poetic sense at the beginning of the century by Khlebnikov, which was always a kind of inspiration for this project.

Two years ago we start thinking about creating a transnational organization to set up projects on both poles, in the North with the Inuit nation and in the South as a completely transnational



'Matchbox house, Igloolik Island, April 06, 2006'

project, because there are no native people in the South. And we created the Interpolar Transnational Art and Science Consortium. And next year, it's polar year 2007/2008, the International Polar Year. It's the first polar year after 1957! Which was the Geophysical Year then. That year created the satellite, that year created the first station in the Antarctic, in the pole. So we think that it's the right moment to create this kind of cultural exchange and connectivity around the globe with the south and the north, and maybe to bring some Inuks to the south to see what that land looks like, to maybe explore that land in a different way than white people see it. Not maybe, for sure! And also to create this kind of utility base because of the tactical media aspect of the Makrolab project and what you said that you always dreamed that you would have, you could go out in the land and still have the basic connectivity and this is what somehow Makrolab was always about. It was about this strategy of what we called Insulation-Isolation, which is that you are insulated and warm somehow in all senses. Isolated from this world, but totally connected through media to the world. So you have access to the world, but you can still be out in the land and experience the land and see the land in a very different way, in what it is! Not what the government tells you it is, for example.

SK: Sure. The Makrolab projects up to now have been basically a test for this.

MP: Of course. And I think that if this need didn't exist, or this dream didn't exist in the community here, as you mentioned Zach, then maybe Makrolab is not the right idea! But it seems that maybe it is....

ZK: Mhh ... (nodding)



**'Marko Peljhan and Zacharias Kunuk, Igloodik Island, April 06, 2006'**

**MP:** And maybe we should really pursue it!

**ZK:** Mhh ... (nodding again)

**MP:** And I think the first thing we should attack is this antenna here. It's just right there and it is waiting!

**SK:** Let's go check out the antenna!

**MP:** Let's go check out the antenna!

**MP:** What do you think?

**ZK:** Yeah, I mean that's what we've been dreaming. Like it's not so nice now, but once it hits June. Everything is beautiful. Warmer weather. And we had this idea that we would set up this network, where we can broadcast anywhere: people fishing as it is now, people around the village, as it is now. People traveling, stopping for tea and they just turn on their communication and we could see them and we broadcast this to the outside world as it happens. That's our long dream! Since there is nothing out here, we can just only dream it ...

**SK:** I would say there is more than nothing here.

**ZK, SK, MP:** (Laughing!)

**SK:** Zach, Marko thanks for the chat! We'll talk more...

**Igloodik Island, Nunavut, Canada, April 6, 2006**

Source: <http://live.v2.nl/v2/2006/tangent/polar.mov>

# The Post Global Warming Survival Kit: The Notebook of the White Guard\*

Petko Dourmana

....  
When the dust covered the sun, east and west lost all meaning.  
Now there is only water in the north, and in the south there are storms.  
It is nice to be in the south on days between storms, but the risk is too high.

For now, floods are normal because of the nuclear winter, but some day the sea will start to rise again. This is why we, the White Guards, are watching over the water.

....  
The bacteria was invented by the Corporation before the launch of the nuclear winter, but not all people managed to adapt to it.

Only humans and dogs can eat the bacteria. So only humans and dogs survived.

The bacteria is everything now. It provides you with all the energy, minerals, and vitamins you need.

A small piece of hard biscuit soaked in water for few hours can grow enough bacteria to provide energy for one day.

You just need to keep the bottle warm, under your clothes near your body.

The wild bacteria has mutated, and only dogs can eat it.

Humans die from the wild bacteria. We can only eat the bacteria provided by the Corporation.

...

Sometimes people drink the milk of their dogs, but milking is difficult if you don't know your dog well.

Milking a strange dog is dangerous.

Some people try to only drink dog milk to avoid dependence on the Corporation, but it has traces of the wild bacteria, and they usually don't survive.

... *the Dourman*

The Corporation also made humans able to see in the dark.

Now everybody is born with this capacity but before we needed a special operation.

I have thought a lot about the people who are not able to see in the dark.

What it means to be helpless in the fog and the dark.

Unable to even see your dog.

No White Guard can afford to be blind like this when the water comes.

...

The quality of your breathing is very important, because it can provide energy from the air that can help the body survive for a long period without food.

When you wake up you start concentrating on your breathing practice. Changing the different ways of breathing establishes the rhythm of your life.

This helps you avoid thinking about food.

....

\*In a world where no social life exists anymore as we know it today, the only authorities left are the White Guards. Thus, the writings of the main character in the installation "Post Global Warming Survival Kit" in his notebook serve not only as a diary in which he records facts about the world around him, but also as a record of his life for others.

Only humans and dogs can eat the bacteria. So only humans and dogs survived.

The bacteria is everything now. It provides you with all the energy, minerals, and vitamins you need.

A small piece of hard biscuit soaked in water for few hours can grow enough bacteria to provide energy for one day.

You just need to keep the bottles warm, under your clothes near your body.

# The Post-Global Warming Survival Kit: The Notebook of the White Guard\*

Some people try to only drink dog milk to avoid dependence on the Corporation, but it has access to the wild bacteria, and they usually don't survive.

The Corporation also made humans able to see in the dark. How everybody is born with this capacity but bacteria without special organs. I have thought a lot about the people who are not able to see in the dark. What it means to be blind in the dark. What it means to be blind in the dark. Unable to even see your dog.

It is not possible to be blind in the dark when the dog is there. It is not possible again. This is why the White Guard see through the water.

The quality of your breathing is very important, because it can provide energy from the air. When you wake up you start concentrating on your breathing. Changing the rhythm of your life. The helps you avoid thinking about food.

The White Guard see through the water. The White Guard see through the water. The White Guard see through the water. The White Guard see through the water.





**Petko Dourmana**

**Post Global Warming Survival Kit**

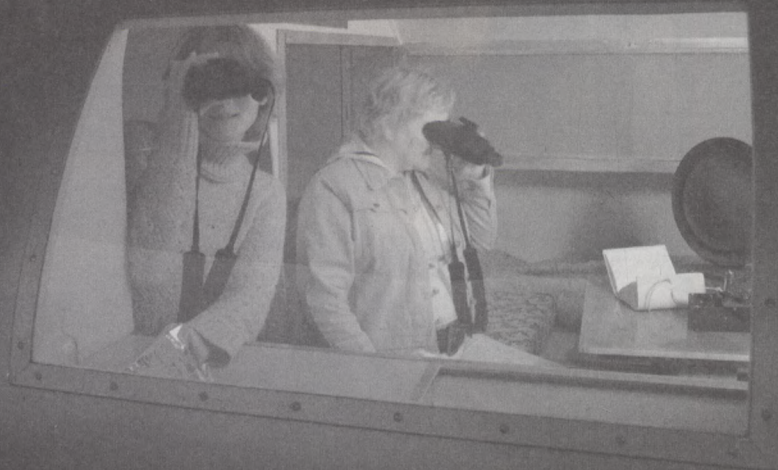


Photo: Thompson  
Post-Global Warming Survival Kit



# Scaling things. Living, Nature and Utopia

Imke Grimm, in conversation with Reynold Reynolds on “Six Apartments”

What does ‘DEEP NORTH’ mean to you?

Before making “Six Apartments” my grandmother wrote to me to say that the permafrost where she went hiking every year in the summer had melted. Where she had been going since the 1950s had become slush. Maybe for the first time in 40,000 years. What that means is everything drowns and all the plants died. It’s a disaster. Even though I have heard about all this from the media it was the first time I felt worried. It made me think about how different my life is compared to my grandparents’ life in Alaska and how people in big cities have a different relationship to nature. My ancestors made a journey from Europe to this remote landscape, and then I managed to go all the way back, backwards to Berlin, where I was feeling isolated from nature and from a natural environment. I imagined that my grandmother could never live here.

So this architecture could be seen as a symbol for homogenous and well ordered living that produces isolation?

Yes, this piece is about how Germany, or any other modern society, is very well organized with the best of intentions to give all the people security and a safe place to live but this also results in an isolation; the people become removed from the greater world, the natural world. After years of enlightened humanistic thinking addressing the problems of how to take care of everyone in society, eliminate violence, give healthcare and education to all the people, after all this well-intentioned thought we have created an unsustainable world. The world cannot function as Germany or the United States do; there are not enough resources for this lifestyle. So now we are in a crisis. A long term crisis: what will happen to the earth in the next 50 years?

This story of your grandmother, it reminds us how much each individual is affected by big changes, but still one can't do anything, we are paralyzed. Would you say this is the only possible reaction? The problems seem to be too huge.

First we need more communication between people. The reaction to this crisis is very rational: if you receive information you cannot act on then it is best to ignore it and live in a state of denial. This keeps you from becoming paralyzed and you go on with your life as before. We receive the information that the world is collapsing; well we can't do anything about it so we just ignore it. Psychologically it is rational. And this message is received from the media so it is cold and demands no response. What is missing is first hand experience and communication with people who have first-hand experience with the problem. So people are receiving information that just scares them and because they have no way to act they become lethargic.

You are saying one individual can't do anything: but on the other hand isn't noticing the first step of action? It seems to me, the people in your piece are affected by the catastrophe that's brought to them by the TV and the radio, but maybe only on a subconscious level.

In 'Six Apartments' the man who watches TV all the time enjoys war movies. War has become the subject of entertainment. The same media that brings the news about the environmental crisis brings these fictional war scenarios creating an equality of information. One is not to react to historical war movies, they are just coming as entertainment. The result is that everything that comes from the media encourages people to not react. Media is always bringing stories based on conflict and you are expected to relax and enjoy. Now when the story is about the climate change you can assume there will be a good outcome, or that it's an adventure and it is exciting.

So there is no function of media in a sense maybe to stay open minded? Is this a critique you had in mind when you created the characters of the piece?

No. In fact I do not work like this at all. I am not interested in politics or in trying to get people to act or to change the media. In this project I was trying to document my feelings and my view of reality; the way I was responding to my environment. I do not pretend to have solutions and I am not devoting myself to political activity or even promoting political activity through my work. I also do not feel that I am different than the characters in the piece, I also do not know what to do and it's the same with my family in Alaska; even though they are closer to the effects of the problem they do not know what the solutions might be, they are just noticing.

You would say that people's reaction to catastrophe or big changes that are communicated by the media is some sort of dullness, because they have lost the connection to the real world?

Yes, but its different for each person - the people in "Six apartments" all have different psychological barriers. This living environment is not well suited for humans. Its disconnection from a natural environment is creating neuroses. There is the woman in the piece who needs to have everything clean or another person that can't throw anything away. But the cause is the same, isolation from the natural world and a lack of interaction with other people.

So by natural world you mean living in and with nature as well as a way of living in human society?

Yes, I mean an interconnected and interdependent system. It is an unintended shocking result of these policies that people become isolated. People no longer need each other, their neighbours or even their family. The connections between people break away because they no longer need to be connected. Finally the only thing that separates you and your neighbour is a wall so perfect that you do not even know who your neighbour is. It's only 8cm thick but it is enough to create isolation. And this isolation, on the individual level, is connected to the question of sustainability on a global scale. For example, overpopulation is a major part of the environmental problem, yet many nations have policies encouraging more children. So we are not "thinking globally, acting locally". Each country sees itself as a special exception, isolated and an anti-model for the world. Each country or group has its own reasons: in Africa the people can feel that they have bigger problems and more immediate things to worry about than polar ice caps, "we are trying to feed the people...", in Germany they can say, "we have to think about our own population declining and the retirement programs need young people to pay into the systems...". And then finally no one has any motivation to take care of the arctic ice cap, except Russia, who decides it would like to own the land under it.



## Reynold Reynolds: Six Apartments

In your piece those people are separated from others and themselves and in that sense from natural life. But on the other hand there is so much natural living going on in the apartments. Natural processes surround the inhabitants while they may not even notice it. All these bacteria and micro processes going on there. So in a sense, this seems to be a connection the natural world that can't be disconnected, can't be controlled by civilisation.

In the preparation I was reading about biology. For example, if you have a pillow in your bed for three years probably 20 percent of the pillow is alive, meaning it is 20 percent micro organisms. Then I started seeing everything this way. It's also true that a big part of your body does not have your DNA. It's alive with bacteria and if you killed this other life in you, your body would die as well. And when you die, this life will continue to live and just look for another host. All of this just shows the details of an undeniable interdependency.

But on the other hand it's also about disconnection. For me the people in the "Six Apartments" are this middle level of a scale and then on a smaller scale there is tons of life and death and activity and then on a bigger scale, meaning some kind of global perspective, there is a lot of life and death and activity. But on their level, their scale, that kind of human scale things are very like slow and static. But yes, there is tremendous biological life happening.

This reminds me of the fact that you studied physics. Is this approach to your object also a result of methods or a mode of thinking you adapted for your work now?

In a bigger picture, yes. I usually start projects by doing some experiments to see how things come out. And this project was no different. I wanted to see if it was possible to get footage on the process of rotting. I think I liked it visually and I imagined all the details that people don't know about these processes in their direct surrounding; I am not quite sure why, but I thought it had to do with the denial of people.

It seems that the biological life does not have an effect on the life of the people on a conscious level. Do you see this as an analogy to their isolated lethargy towards the problems on the global scale? In other words: are there modes of direct interaction between the scales?

Subconsciously the clean women of "Six Apartments" knows that everything is in this kind of state, so she is trying to fight it. I think the scales are interdependent, but the relations are complex. And since the earth as a whole is the scale larger rather than smaller than the people, I also wonder: if everybody now suddenly changed their lifestyle, would it be enough to save the earth?

And even if everyone did change their lifestyle so extremely what might that cause? Maybe it would cause another state of being but would that be sufficient to provide a world that is better? That is something I think DEEP NORTH is also about: what kind of utopia can or should be the future?

Its nice that you brought up the word utopia. After WW2 people began to mistrust the idea of utopias and that has held back society from thinking about what would be the right way to live. Instead, we have used concepts that resemble evolution: the free market, let things take care of themselves, and everything will get better. But it turns out that the effects of such a natural regulation are more like overpopulation and then starvation, that's how nature takes care of things, it just lets things die when it doesn't work; and I don't think that's what we want for humanity.

But what you are documenting is a situation that seems to have very few options for change; something that could develop in to a global crisis in a technological and cultural context producing individual lethargy. So where is the opening for utopias beyond something similar to evolution?

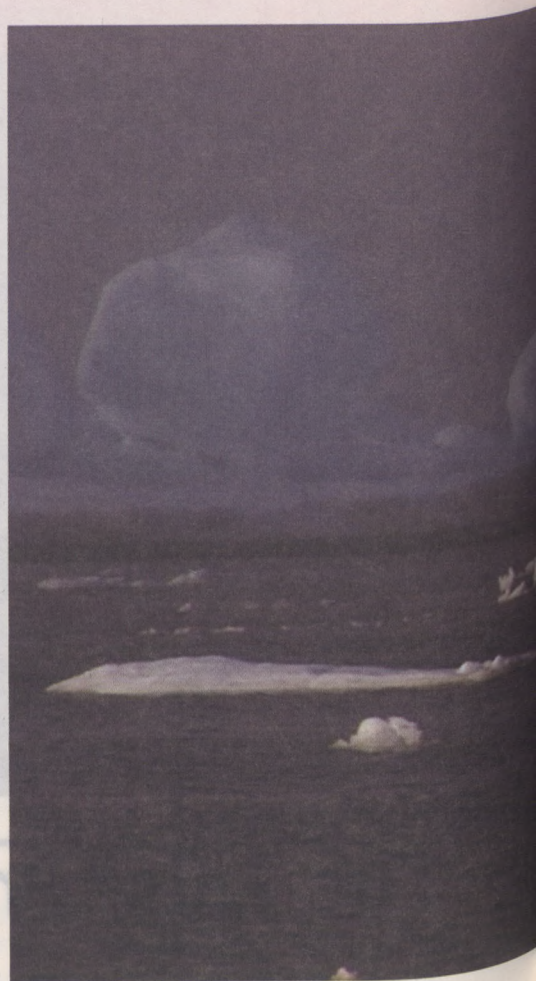
I think mankind has free will, choices can be made. But people have to change their value system in a tremendous way. And the first step is to see that material objects don't make people happy. It's very hard to observe that in your life; but I think objectively you can see that when observing other people. So if that's true on a personal level there is no reason why the world is being motivated by the accumulating of wealth. And it is this accumulating of wealth that creates the conditions that are quickly putting the earth into danger.





© Clark Nifensom

# Beyond the End, The Polar Project



## Project Find

Faint, illegible text, likely bleed-through from the reverse side of the page.



# Staging the North

Ulla Dreneckhan

Images of melting icebergs and the associated decline of the northern world of ice elicit feelings of fear not just because they indicate major climatic changes. What is threatened there, and to some extent threatens to melt away, is a landscape upon which ideal notions are projected to a greater extent than any other.

Among the far reaches of the world that were still inaccessible and, hence, mysterious to Europeans two centuries ago, only the North Pole and its icy surroundings remain difficult to reach and have thus retained a special pictorial language and symbolism.

The yearning for the distant North reached a highpoint in the 19th century, as many travel and adventure novels excited public imagination and it became possible to encounter objects brought from travels, if only in museums. At the time, this interest was in no way confined to

the Arctic—the northernmost reaches of Europe equally unknown and fascinating. In 1822 a family from Lapland, complete with reindeer and sledge, could be viewed in London's legendary Egyptian Hall. A huge panoramic painting of ice and snow along with two tents provided the scenery, and 58,000 visitors attended, who were determined not to miss the chance to marvel at a glimpse of the North. Several times a day a reindeer drew the sledge through the exhibition hall past the amazed spectators, who were then allowed to pet the animals. What today is considered an unacceptable exhibition practice of presenting people as "living exhibits" was already controversial at the time, not that this detracted from its public success. In Hamburg in 1909 Karl Hagenbeck, already renowned for his exhibitions of tribes and animals, presented 25 polar bears sitting on cardboard blocks of ice, likewise in front of a panoramic painting of an icy landscape but complemented by a wrecked ship crushed by ice floes. Wrestling matches with the polar bears were held in an arena in front.

In addition to motifs that romanticized by conveying the clear beauty and untameable power of nature, another central representational theme was and is the conquest of the poles. The public took a particular interest in the expeditions sent to search for the vanished explorer John Franklin after 1847. Many pictures from this time show ships and their crews at the mercy of gigantic icebergs. Honors were heaped upon all those who exposed themselves to such dangers, and thus the American polar researcher Charles Francis Hall, who went off in search of Franklin from 1860 to 1862, became as celebrated in Europe as he was at home. His 1864 book *Arctic Researches and Life among the Esquimaux* became a bestseller.

Beginning in 1908, the contest between the polar researchers and adventurers Robert Edwin Peary and Frederick Albert Cook took the limelight. Both claimed to have reached the North Pole. As Cook lacked clear photographic evidence, he reenacted his arrival at the North Pole in a photographer's studio. He had a clear idea of what a credible picture from the North required: icebergs in the background and two men in thick fur coats gazing into an infinite distance. Cook's rival, Peary, was also unable to substantiate his claimed arrival at the North Pole photographically, so a postcard was printed showing, at the least, his footprints in the snow and the Stars and Stripes.

The public fascination with Cook and his supposed arrival at the North Pole reached as far as the Carnival processions in Europe. At the Vienna Carnival around 1910, for instance, one float's satirical portrayal of a cardboard North Pole was entitled "Where is Cook? Where is the North Pole?" Viennese curiosity and lack of knowledge was parodied by the cartoonist Ladislaus Tuszynski of Lemberg in his animated film *Die Entdeckung Wiens am Nordpol* (The Discovery of Vienna at the North Pole) in 1923. With the development of the feature film genre there also came a considerable number of spy films set in the Arctic, such as *Ice Station Zebra* in 1968 (nominated for a visual effects Oscar in 1969). And so the history of the North Pole as a setting for international tests of strength continues into today.

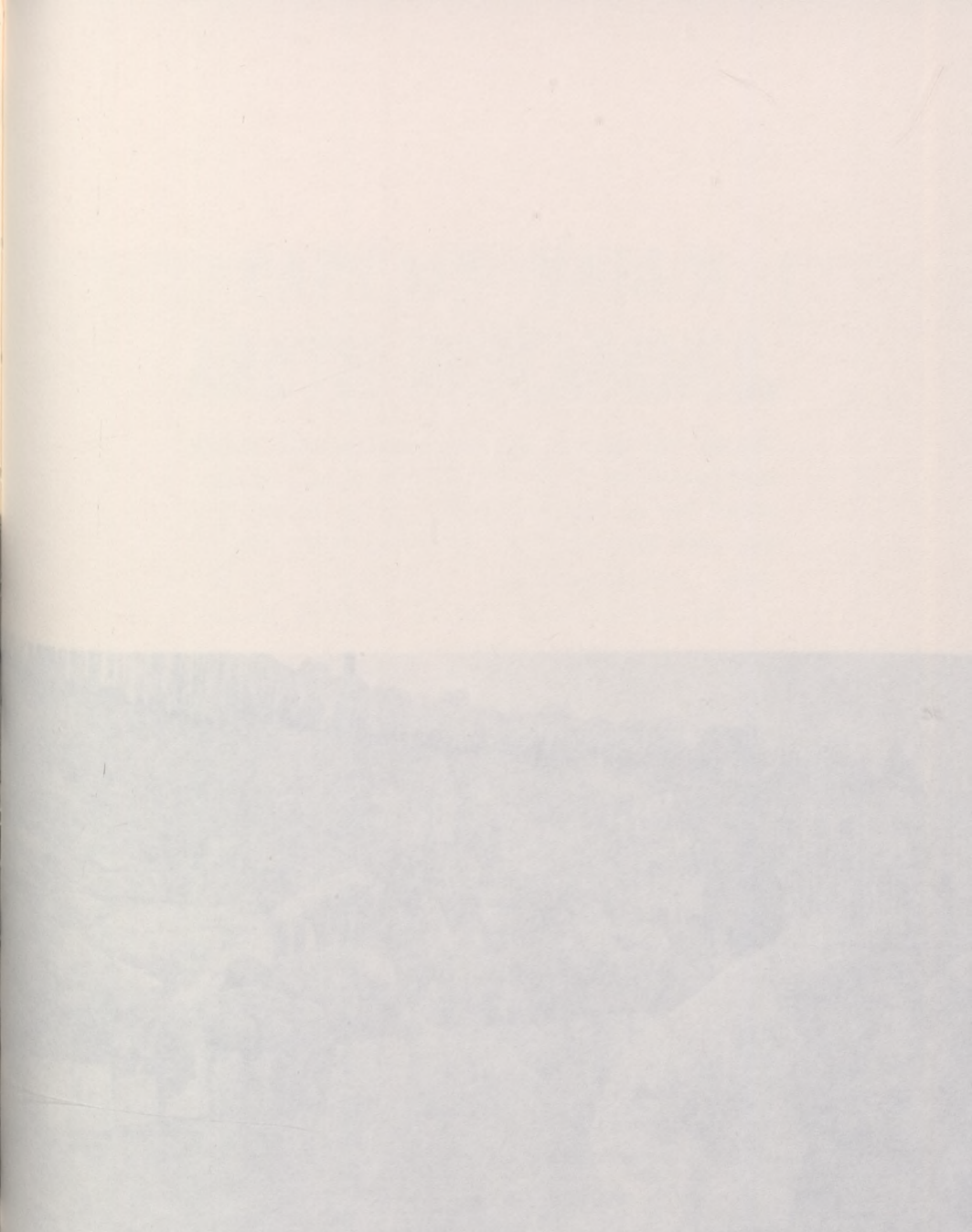
The media for staging the North have changed, yet a look into the past shows us that the same universal motives are still being used to depict the North as before and that their interpretation has also scarcely changed to this day. New, however, is the knowledge that these images will look different in the future.

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In addition to motifs that romanticized by conveying the clear beauty and unknown power of the Arctic world, the polar region was also the context of the polar.



will look different in the future



Scene of a family from Lapland with their reindeers  
and tent on display at Bullock's Museum, better  
known as the Egyptian Hall, on Piccadilly,  
London, 1822





**"World greatest show dressage of Hagenbeck":  
wrestling match with polar bears.**

**Published by *Berliner Illustrierte Zeitung* 1908**



# CAPTAIN HALL'S ARCTIC RESEARCHES.

Arctic Researches and Life among the Esquimaux: being the Narrative of an Expedition in Search of Sir John Franklin, in the Years 1860, 1861, and 1862. By CHARLES FRANCIS HALL. With Maps and Illustrations. 8vo, Cloth, Bound, \$4.00; Half Calf, \$7.25.

The work is one of the most interesting as well as one of the most instructive yet written on the subject of Arctic adventure and discovery, and is especially valuable for the information it gives as respecting the inhabitants of those regions of snow and ice. Mr. Hall acquired the language, learned the habits, and entered into the feelings of the Esquimaux, and his reports are done with dramatic as well as with scientific accuracy.

Search party for the vanished Franklin expedition. Illustrations for E.K. Kane's *Arctic Explorations*, Philadelphia 1853/55, commissioned by the publisher Henry Grinnell.

Captain Hall is one of those men of whom great nations do well to be proud, a man in whom the heart of a child is united with the steadiness of a Yankee captain, who can get feet lost, but can give up life to relieve a human being who has no conceivable claim on him save that of a common humanity.—*Spectator*, London.

PUBLISHED BY HARPER & BROTHERS, New York.

157 Harper & Brothers, New York, will, postage prepaid, in any part of the United States, send on receipt of the price.

ESTD 1837

Advertisement for Captain Charles Francis Hall's  
book *Arctic Researches and Life among the  
Esquimaux*, 1873

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Captain Hall is one of those men of whom great nations do well to be proud, a man in whom the heart of a child is united with the shrewdness of a Yankee captain, who can not feel fear, but can give up life under torture to relieve a human being who has no conceivable claim on him save that of a common humanity.—*Spectator*, London.

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**PUBLISHED BY HARPER & BROTHERS, NEW YORK.**

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 HARPER & BROTHERS will send the above work by mail, postage prepaid, to any part of the United States, on receipt of the price.

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# CAPTAIN HALL'S ARCTIC RESEARCHES.

Arctic Researches and Life among the Esquimaux; being the Narrative of an Expedition in Search of Sir John Franklin, in the Years 1800, 1801, and 1802. By CHARLES FRANCIS HALL. With Maps and Illustrations. 8vo. Cloth, Revised, \$5 00; Half Call, \$7 25.

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Photography of American discoverer, polar explorer and physician, Frederick Cook (right), 1910

Captain Hall is one of those rare men in whom the heart of a child is united with the sternness of a Yankee captain, who can not feel fear, but can give up his undertakings to relieve a human being who has no conceivable claim on him save that of a common humanity.

Translated by HARRIS & BROTHERS, New York.

EW. HARRIS & BROTHERS will send a copy of the book on receipt of the price, and postage prepaid, to any part of the United States.

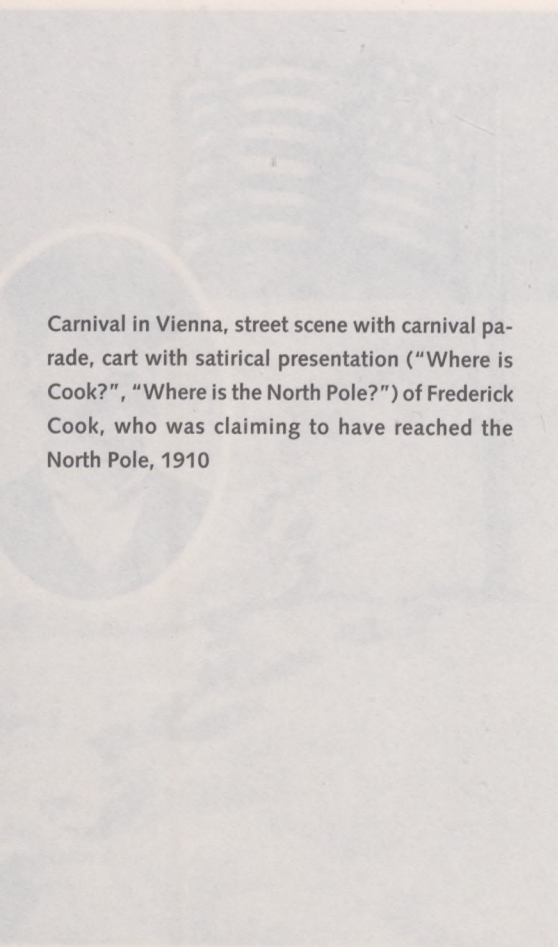


Souvenir postcard commemorating Robert Edwin  
Peary's discovery of the North Pole in 1909

Photography of Arctic regions  
and physician, Frederick Cook







Carnival in Vienna, street scene with carnival parade, cart with satirical presentation ("Where is Cook?", "Where is the North Pole?") of Frederick Cook, who was claiming to have reached the North Pole, 1910

Postcard commemorating Robert Edwin Peary's discovery of the North Pole in 1909



WO IST COOK?  
WO IST der NORDPOL?

21

22

Submarine commander Ferraday is on the way to the North Pole. Aboard with him are a Russian, Vaslov, and a Briton, Jones, both on special missions on the highest authority. Ferraday learns that an important microfilm is to be salvaged from a crashed spy satellite. On this film, all American and Russian rocket bases are documented . . .

Photo from *Ice Station Zebra*, 1968





# Deep North: An Address

Jean Malauric

Ladies and Gentlemen, Dear Participants, My Very Dear Friends,

I have the honor today, on January 28, 2008, to open the great forum of transmediale.09 DEEP NORTH. This meeting is historic. It is not without reason that it is being held in Berlin at the House of World Cultures. It is in this capital that the first International Polar Year was proclaimed at the International Congress of Geography in 1882-83. The Fourth International Polar Year will end in a few days. I will be in Geneva for this event with Mrs. Catherine Bréchnignac, President of the ICSU (International Council for Science) and we will be able to present your conclusions there. As Goodwill Ambassador for the arctic regions at UNESCO, I will be moderating a great Arctic Congress from March 3-6, 2009, which brings together 40 experts. This congress will deal with the future of the people in the North in view of climate change. Your work will also be presented there.

I. Tonight we will consider the paradoxical and global consequences of warming in the regions of the Great North, which is favorable to the great arctic nations but most threatening to the equilibrium of the earth. At DEEP NORTH our number one priority is to assert in this forum that nothing will be undertaken in the North without the support of the peoples who have lived there for thousands of years and whose rights are inalienable. Any development within these immense deserts must take place with absolute respect for the philosophy of one million men and women: Inuits, Indians, Laponians, and the people of northern Siberia.

Before going any further, I invite you, dear participants, to pause for a minute of reflection, understood as a prayer of sorts. We need to return to the sacred dimension of these high places in our memory, these Hyperborean paradises which visionaries like Hölderlin and Nietzsche sensed, hoped for and anticipated. The Hyperboreans are your great mythical forbearers. In the deep North they felt untouched by the original sin that dealt a blow to humanity—and intimately connected to the hidden god of the earth and the cosmos. The North Pole is the door to heaven. Did Plato not believe that the swans carried the souls of the dead toward the North to rest?

Geboren! To be born again in this deep North where the primal forces of Thule's mystical night have the potential to bring forth a new human being. You do not go towards the pole, you go up. It is within this major geomagnetic space that we will find our interior geography and our salvation.

II. On September 13, 2007 the Declaration of the Rights of Indigenous Peoples was adopted by the United Nations. This fundamental text aims at protecting the rights, too often violated all over the world, of 70 million indigenous people. Their right to self-determination was also solemnly affirmed in New York. A majority of 144 governments voted for the declaration; but with great regret we note that four great countries voted against it, two of which are great arctic nations: the United States and Canada. We must do everything possible make these two great democratic nations reconsider their vote within the astonishingly flexible and democratic framework of federal states. In particular, since on Wednesday, June 12 of the same year Canada's Prime Minister Stephen Harper presented the Canadian government's "sincere apologies" before the Federal Parliament and asked for the pardon of its indigenous people: 1.3 million men and women and 640 communities. Many children have indeed been subject to intolerable physical and mental abuse. Created in the late 19th century, specialized boarding schools under the authority of the churches enrolled some 150,000 indigenous children by force to "civilize" them and make them "forget" their language and culture through authoritarian methods. According to Phil Fontaine, Chief of the Assembly of First Nations: "it is the darkest chapter of our history. Unable to kill all Indians, they decided to kill the Indian in the child." Apart from ongoing judicial proceedings, the churches have yet to make their acts of contrition.

The Danish government has progressively become aware of having seriously neglected its duties as historical protector in Thule in the north of Greenland. There, in June 1951 it granted a fifth of the Inuit territory to the US Air Force as an aircraft base for nuclear weapon carriers without consulting the local Inuit population, which was brutally expelled in the winter of 1953.

The peoples of the North have claims to the West, which has acted imperially and colonially for so long in the North, as in the rest of the world. And the West should no longer content itself with great declarations but should make good on its will to repent in the humanist spirit of UNESCO. For too long wrongful policies stemming from fallacious ideas have been adopted with respect to civilizations which have been disregarded, misunderstood, or disdained for their wild thinking and complex animist philosophy. We should remember the famous words uttered

in Ottawa on December 8, 1953 by Louis Saint-Laurent, the Federal Prime Minister: "We have apparently administered the vast territories of the North in a state of almost continuous distraction."

III. I stand before you not in the name of abstract science, but as somebody who has lived what he is saying, who is conscious of having been transformed by the wisdom of these people, and who is politically committed to publicly expressing his debt.

As an adopted Inuit, I suffer when I see the West behave badly. And I would like to reflect with you in this great city of culture on an example that each of us may see for ourselves: anthropological museums. The splendor of sculptures, masks, and engravings of shamanic inscriptions has the power to awaken our deepest sentiments. These are objects, which even outside of their religious context and rituals—their source of inspiration—challenge the Christian or atheist Westerner as messages from the invisible. But in presenting these wonders from ancient times too many museums implicitly suggest that this art comes from a long lost past and that these people are being buried alive within these temples of knowledge. In the prodigious change which the peoples of the North are now experiencing, all the political leaders of Nunavut, Nunavik, Greenland, and the Laponian and North Siberian countries are vividly aware that their history is not over, but that after their technical transition they will experience extraordinary rebounds in these deserts, which the northern gods have gracefully made very rich in oil, gas, and minerals. By protecting their language and heritage, these peoples, the Bedouins of the North, are convinced—as are we—that they are an agent of ferment in the history of humanity because of the animist message in their culture. History can only be appreciated over the long term. I cannot come to terms with the eternal regrets of sleek museums, which insist, like antique dealers and collectors, upon writing these people off to the past. I hate this reaction of whites, who dare think themselves competent to consider one or the other population of the Great North, the Americas, Asia, Africa, or aboriginal Australia as the living-dead. It is intolerable that our Western civilizations dare allow themselves to choose the moment when the first peoples, at the slow pace which has always been theirs, are to be considered fossils of history.

IV. But here, under these solemn circumstances, I do not wish to polemicize any further. History is accelerating, and the world is experiencing one of its greatest upheavals. The West is undergoing the worst impasse in its history and is in obvious need of new inspiration. The West is slowly receding. Its economy is in crisis. The churches are emptying; in this disorder the value systems of the universities are under debate. In Europe and Canada, as in the United States and Russia, we are all living in fear of an ecologic cataclysm, which accelerated and uncontrolled development will certainly generate. The interests of the responsible governments are indeed contradictory. And without knowing it, in our anguish we Westerners are moving closer, under the banner of secular ecology, to the animist thinking of the first peoples who were long looked upon as pagan and ignorant. And it is with a distant ear that we will henceforth be listening to the imaginary world of religions revealed, whilst our instinct of self-preservation prompts a return to nature and its hidden order, taught for ages by your wise men and shamans.



I am convinced of something, which is why I repeat it: the first peoples are an agent of ferment for humanity, which is constantly evolving. We should search for inspiration in much of this ancient wisdom. And those among us who are listening to it are many. You gentlemen, representatives, and leaders of these peoples, you, we know that because of your great political experience, you will not let yourself be colonized, and we stand by your side. We know that you will not let your heritage be squandered; the treasure you have been entrusted with is sacred. We wish that all peoples of the North might follow your example to protect the wealth of their language and immaterial heritage. I cannot repeat it enough: humanity needs you, your singular intelligence, the foresight of your poets, shamans, and artists who have managed to open up a mode of understanding, which our reason cannot comprehend. Within this cultural collision which you are experiencing, I beg of you to have all of our technologies taught to your children, which will enable you to communicate on an equal footing with millions of immigrants who are invading your territories, as docile technicians today, and tomorrow perhaps as conquerors. Learn, but in your children also awaken the hybrid heritage of your great ancestors, who lived close to the animal world as "natural beings" and who had the prodigious faculty of a hypersensitized mental code at their disposal.

Thanks to the exceptional powers of adaptation you have displayed for thousands of years, the young people of the Great North have adopted cyber civilization, which connects men and women throughout the entire world. This Berlin forum shows that by exploring all avenues, from high-tech to art, you seek to build a humanist North, which we, humans of the South, hope is not just utopian. To the beat of a new music, through dissonances and serial harmonies, you encourage us "classicists" to further explore another means of perception. This is the "double ear" championed by the French musician Erik Satie. It is about reverting to a passion for the subtle ways of the shamans, which allowed visionaries to gain access to an immaterial universe with their great drums and choral music accompanied by dance.

V. In the spring of 2008 the Greenlanders founded a polar institute in Uummannaq in the northern regions of the country: The Uummannaq Polar Institute (UPI). On this large island, which will become the first sovereign Inuit nation, they would like to create an international circumpolar forum in addition to a national academy, which will use a new pedagogy in its teaching, one combining the traditions of hunting and fishing with modern science. Through an annual meeting this forum will not only support the most advanced technologies, such as cybernetics, but will also illustrate the Inuit artistic and intellectual tradition. Through these forums we will recall the fraternal alliance between white explorers and native people, a bond so close that it sometimes held until death, and which will be celebrated by a great museum of exploration. Uummannaq is also a major center of research, since this is where the famous German geophysicist Alfred Wegener, father of plate tectonics, perished in the glaciers in December 1930 with his Greenland friend, Rasmus. This museum of the past will also be looking to the future, a reminder that while there was a time when the Inuits were the assistants and companions of great exploratory missions, tomorrow they will be the pathfinders of the anguished West in fac-

ing the fogs of the future. The UPI has already been called upon to work closely with the State Polar Academy of St. Petersburg, which trains professionals for North Siberia. Co-founder of this institution, I have been appointed an honorary lifetime president by the Russian authorities.

Represented by my person, the UPI is launching an appeal. Be yourself in all the areas where you have excelled, and express yourself, as you have already done in the world of cinema with *Atanarjuat*, which earned an award at Cannes. I am happy to announce the first film made in total collaboration with the people of Greenland. It will, I am sure, have a worldwide impact when it hits the cinemas in a couple of months. It was shot in Uummannaq with the support of the UPI: *On thin ice*. This fictional feature film deals precisely with the problems I am discussing tonight.

VI. It is vital that your and our civilizations work to complement each other. We greatly need you, so that we again learn the meaning of sharing, an absolute respect for nature, an awareness of a hidden god, and a world order.  $1 + 1 = 1$  as Plotinus taught us. We are part of a "whole." Yes, nature is sacred, and we are its children. It is not by chance that the UPI is located in Uummannaq, on a small island at the foot of a great mountain which has two ventricles representing a heart breathing on the right and irrigating matter's core on the left; in Greenlandic Uummannaq means "like a heart," and it is a heart of stone. The peoples of the North are modest, unlike white people. They do not seek to explain great physical laws through endless talk and equations.

This message, delivered in Germany, is invigorated by the dim and pressing voices which continue to rise from the hundreds of sanctuaries where millions of victims of the Nazi extermination and concentration camps remind us of their existence. A civilization which no longer has a sense of values leads to the worst of horrors, i.e., to the follies of extremism. Let us beware of the audacity of the original sin called pride, which, together with our creative intelligence, has already been transformed into a covert terror onslaught on nature. "Let us domesticate nature," says the Bible's Book of Genesis. No, responds Bartholomew I, Patriarch of Constantinople; this divine thought is badly translated and should be read differently: "Let us respect its laws." May I remind you that I will present the conclusions of your great forum in Geneva, the capital of CERN, an immense laboratory where people in white coats are looking for the initial energy that brought about the Big Bang.

Good luck my friends. And may the gods of the North inspire your work.

Jean Malaurie, Honorary President of the UPI.

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